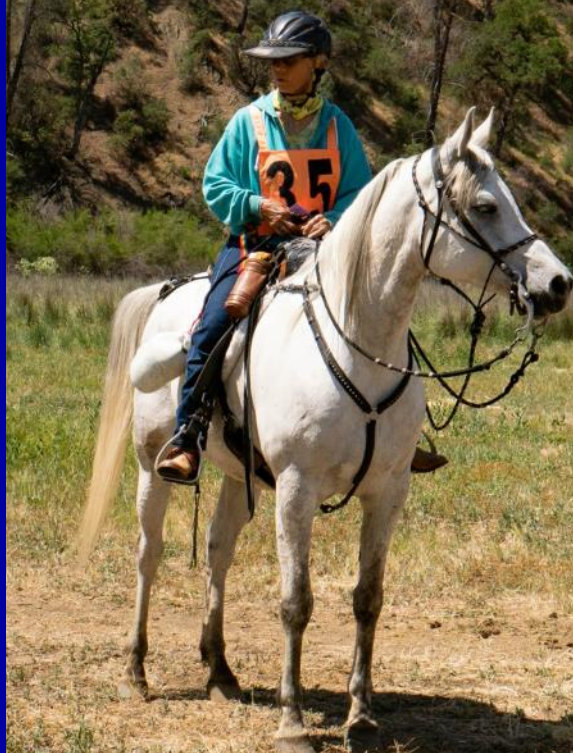


NATRC™ Rider's Manual



**A Complete Guide to
Competitive Trail Riding**
Revised and Updated

THE
NORTH AMERICAN TRAIL
RIDE CONFERENCE

Rider's Manual

A Complete Guide to
Competitive Trail Riding



Revised Edition of the *NATRC Rider's Manual, a Complete Guide to Competitive Trail Riding*. Digital version.

© 2021 North American Trail Ride Conference
All rights reserved

Edited by NATRC members Jamie Dieterich, Beverly Roberts, Priscilla Lindsey and Lory Walls.

Illustrations by Bethany Caskey Kness and Beverly Roberts.

Page layout and design by Beverly Roberts.

Cover photo by Linda Thomason.

Photos within as noted. Photographers: Alexas Foto, ArtyArt, Ruth Bourgeois, Soren Brath, Juli (Moss) Carralejo, Anthony Chalot, Mike Collins, Creative Concepts, Cristy Cumberworth, Jamie Dieterich, JacLou DL, LeeAnn Dreadfulwater, Cheryl Edmondson, Jim Edmondson, Robert Eversole (TrailMeister), Larry Gould, Ardell Greenwood, Horse & Hound, Jan Jeffers, Jonni Jewell, J. R. Kendall, Andy Klamm, Angel Middour, Kimberly Naugle, Ron Osborn, Quadinsan, Rihaij, Beverly Roberts, Richard Rosinski, Standlee Forage, Nancy Sluys, Debby Starr, Brandy Steele, Bill Wingle, Vlad Vasnetsov, Gary Walls

Original First Edition.

A committee of NATRC members including: Jamie Dieterich, Jan Jeffers, Judi Tobias, Karel Waugh, Stephanie Ostrowski, DVM, Ruth Bourgeois, and Cheri Jeffcoat created the original first edition. Kathy Gardner provided proofreading assistance.

© 2002 North American Trail Ride Conference
All rights reserved.

ISBN 0-9712629-0-X

North American Trail Ride Conference
PO Box 969, Beatrice, Nebraska 68310
www.natrc.org, natrc@natrc.org, (402) 806-8708

Contents

	Page
<i>Preface</i>	vii
<i>Introduction</i>	ix
1. NATRC Competitive Trail Rides	
Ride Structure.....	1
Mileage, Divisions and Classes	1
Timing.....	3
P&R Stops	4
Forward Motion Point	4
Elements of Competition	5
Basic Skills for Competition.....	5
Safety	5
Sportsmanship	6
Education.....	6
Prohibited Substances and Treatments.....	6
2. Preparing for a Competitive Trail Ride	
Selecting the Right Horse.....	9
Desirable Conformation	9
Desirable Temperament.....	10
Building Fitness	13
Basic Conditioning Principles.....	13
LSD Exercise.....	13
Getting Started	13
Increasing the Workload	14
Training Rides	15
Heart Rate	15
Interval Training.....	16
Other Considerations	17
Rest	17
Over-training.....	17
Mental Fitness	17
Sweat.....	17

Warming Up and Cooling Down.....	18
Setting Goals	18
Horse and Rider Harmony.....	21
Cross Training and Dressage	21
Dancing with Your Horse	23
Horse Health Care.....	25
Vaccinations	25
Internal Parasites	25
Dental Care	27
Precautions.....	28
Hoof Care	31
Nutrition	31
Environment	32
Growth Patterns	33
Trimming	33
Hoof Protection.....	35
Shoeing	35
Hoof Boots.....	37
Other.....	37
Nutritional Requirements.....	39
Energy	39
Fiber	39
Carbohydrates.....	40
Fats.....	41
Protein	41
Water	42
Salt and Other Supplements	43
Salt	43
Vitamins and Minerals.....	43
Ration Balancers.....	43
Digestive System Support.....	43
Wheat Bran	43
Beet Pulp.....	44
Fluid and Electrolyte Balance.....	47
Fluids	47
Electrolytes.....	48
Balance.....	50
Imbalance	52
Tack and Equipment.....	55
Saddles.....	55
Types.....	55
Synthetic.....	57

Rigging	58
Girths/Cinches.....	58
Stirrups	58
Breast Collars and Cruppers.....	59
Saddle Pads	60
Saddle Fit	60
Horse	60
Rider	61
Saddle Influence on Rider Position.....	62
Bridles and Bits	64
Snaffle Bits	66
Curb Bits.....	68
General.....	69
Bosals, Hackamores, and Bit-less Bridles	69
Other Tack.....	70
Tie-downs and Martingales	70
Halters	71
Synthetic Materials.....	71
Additional Gear.....	71
Blankets and Sheets	72
Rump Rugs	73
A Reminder.....	73
Helmets and Their Accessories.....	75
Helmets	75
Standards	75
Fit.....	76
Helmet Accessories.....	77

3. Getting to the Ride and Setting Up

Trailer Safety	79
The Trip	82
Before	82
During	83
After	83
Horse Comfort	83
Camp Setup.....	87
Location	87
Tying to the Trailer	88
Preparing Your Horse for Trailer Tying	88
Stabling.....	90
Tying.....	90
Stationary Ties	90
Overhead Trailer Ties	90

Sliding Tethers	91
General Tying Tips	92
Quick Release Knots.....	93
Stallions	97
Portable Corrals	98
Supplies.....	98
Water	99
Feed and supplements.....	99
Blankets.....	100
Horse/Rider Identification	100
Team Number	100
Safety	101

4. Competing in a Competitive Trail Ride

Sequence of Ride Activities.....	103
What to Carry and Where.....	107
Minimum	107
Other.....	109
What to Wear	110
Timing and Pacing.....	113
General.....	113
How to Pace Your Horse.....	114
Timing and Pacing in Competition	117
Timing Your Ride – Open Competition	118
Time Penalties.....	120
Official Delays	121
Off Trail.....	122
The Ride Briefing	125
Introductions	125
Map.....	125
Post Briefing Meetings	129
The Horse's Scorecard.....	131
Condition – 40 Points	136
Hydration Criteria and Fatigue	136
Pulse and Respiration Checks (P&Rs)	139
Cardiac Recovery Index (CRI)	142
Soundness – 45 Points	143
Trail Ability and Manners – 15 Points	145
The Rider's Scorecard.....	147
Grooming.....	150
In-Hand Presentation	150
Fine Tuning the In-hand Presentation	155

Special Needs of Physically Challenged Riders..	157
Tack and Equipment	159
Stabling.....	161
Trail Equitation	163
Balanced Riding for Distance Riders	163
Riding a Gaited Horse.....	167
Biomechanics for Ascending Terrain	169
Effective Downhill Riding.....	171
Body Sway Downhill.....	175
Down/Up Transition.....	176
Obstacles / Observations	176
Gates	179
The Judged Mount	181
Hands and Reining.....	183
Trail Care.....	189
General Care of Your Horse	189
Clipping	189
Water and Water Crossings.....	190
P&R Stops.....	192
Lunch Stops	195
Other Considerations	195
Back in Camp	196
Trail Safety and Courtesy.....	199
Maintaining a Safe Distance	199
Passing Other Horses and Riders	199
Meeting Other Horses and Riders	200
Passing or Meeting Pedestrians or Bicyclists	200
Meeting Motorized Vehicles.....	200
Watering	201
Obstacles	201
Stallions.....	202
Listening to Instructions	202
Leisure Division Scorecard.....	205
Timing and Pacing.....	205
The Ride Briefing.....	205
Trail Ability and Manners.....	205
Trail Equitation.....	210
Surface and Soundness	210
Pulse and Respiration	210
Safety and Courtesy.....	211
Awards Ceremony	213

5. Conclusion.....215

6. Appendices

- A. Packing & Leaving Checklist.....219
- B. Ride Quick Tips223
- C. Timing Chart.....225
- D. First Aid227
 - Emergencies.....227
 - Wound Care227
 - Dehydration228
 - Heat Exhaustion228
 - Tying Up228
 - Colic.....228
- E. References and Resources.....229
 - References229
 - Resources: Additional Reading.....229



Preface

Competitive trail riding is truly a team sport, a partnership between horse and rider. Together you cross meadows and streams, climb to mountaintops and down their other sides, trot shady paths through small woods and great forests, and surmount natural obstacles along the way. Together you exercise body and brain as you cover the long course, sharing time and the adventure of competition.

During the process of training and conditioning and in the competition itself, each of you grows in physical fitness and in learned skills. The relationship that develops between you and your equine in the meantime can reach a high level of harmony as you enjoy the recreation of riding the countryside's trails closer to nature than is likely in everyday life.

Formed in 1961, the North American Trail Ride Conference (**NATRC™**) has made competitive trail riding available to riders across the nation. Uniform judging based on performance of the horse is of paramount importance in NATRC's philosophy of the sport. Rides are open to horses of any breed, type, or conformation. The philosophies of NATRC are:

- To stimulate greater interest in the breeding and use of good horses possessed of stamina and hardiness and qualified to make good mounts for trail use.
- To demonstrate the value of type and soundness in the proper selection of horses for competitive riding.
- To learn and demonstrate the proper methods of training and conditioning horses for competitive riding.
- To encourage good horsemanship as related to trail riding.
- To demonstrate the best methods of caring for horses during and after long rides without the aid of artificial methods or stimulants.

Although this manual explains a few NATRC rules, it is not a substitute for the current Rule Book. Instead, its purpose is to acquaint you with the procedures of an NATRC ride and to give you some tips on how to do well in competition. It does not have all the answers. We hope it will give you some information to help you make decisions when trail riding either competitively or recreationally.

NATRC is more than just a governing body for competitive trail rides. It is a non-profit 501(c)(3) educational organization, dedicated to providing learning opportunities for its members and non-members alike. NATRC sanctions competitive trail clinics as well as competitions and participates in various horse events and horse fairs with informational booths. It offers funding for special programs such as student loans and scholarships and trail development.

NATRC competitors share the challenges of terrain and weather conditions, of timing, of being under the judges' watchful eyes, and sometimes the treasure hunt quality of staying on course, making for a spirit of great camaraderie. It is then that trail riders compete year after year, not just for the competition, but for the friendships, old and new, the ongoing education, and the enjoyment of the partnership that develops between horse and rider. Winning ribbons and awards is a bonus.

Many of the horses featured in this manual are those who have earned a place in the Horse Hall of Fame. Listed below are the criteria for achieving this honor: A minimum of 400 total points is required for consideration for the Horse Hall of Fame.

Criterion	Minimum	Points
President's Cup	4000 competition miles before consideration	20
Bev Tibbitts Grand Champion	97.5 average	20
Mileage	4000 miles of combined Open, CP or Novice	50
	Each additional 500 miles	15
Open National Championship	5	80
	Each additional (can be non-consecutive, have different riders or classes)	15
Open Sweepstakes	8	40
	Each additional	5
Region Open High Point	Hwt, Lwt, or Jr Class	5
National Open High Point	Hwt, Lwt, or Jr Class	10
Championship Challenge	National Champion	5
	Reserve Champion	3
Years of Service	7 years (No points for first 7 years)	0
	Each year thereafter with a minimum of 5 rides completed per year	5

Introduction

What is a competitive trail ride?

A competitive trail ride is a competitive distance event over a measured distance and completed within a window of time. In NATRC competitions, an approved veterinary judge evaluates the horses, an approved horsemanship judge evaluates the riders, and an approved judge evaluates the team in the Leisure Division (LeD). This manual uses the word horse(s) to mean horse, pony, donkey, mule or other equine.

The judging begins at the preliminary examination, usually the day before the ride, continues during the ride, and concludes at the final examination 1, 2, or 3 days later. The vet judge looks at each horse's condition, soundness, and trail ability and manners. The horsemanship judge looks at each rider's horsemanship as it applies to competitive trail riding. Trail safety and courtesy are key elements of horsemanship as is the ability to care for a horse during and after a ride. The LeD judge evaluates trail ability and manners of the horse and equitation and communication of the rider.

Overview

NATRC has six regions covering the country from Alaska to Florida, plus Canada and Mexico. Each region puts on rides in their geographic area. Anyone age 10 or older, member or non-member, may enter a ride. All are welcome - all riders, all breeds of equines, and all types of tack and disciplines of riding. Entries for any ride are welcome from anywhere. Some rides are held on private property or public lands that are not otherwise available to the individual rider.

Individual rides are all local events with an NATRC sanction given for using NATRC rules and approved judges; therefore, each ride is unique yet follows the same basic structure. Competitors haul their horses to the ride's headquarters where they set up camp. The campsite might be in a grove of trees or in a meadow where non-riding family members can either relax or perhaps assist management personnel while the riders are competing.

After checking in with the ride secretary, the riders present their horses for a preliminary inspection by the judge(s). Later in the evening, management calls a meeting to brief the riders on the trails.



Ride camp for the 2017 Indian Territory CTR held at Bell Cow Lake in Oklahoma.
Photo by Mike Collins.

The next morning, officials time out competitors at intervals from a starting point. With the aid of a map, the riders follow the marked course. How far they travel and for how long depend on the particular event and the division of competition.

Under management direction, trained volunteers check each horse's pulse and respiration (P&R) at a minimum of two stops on the trail (one stop for LeD). Judges also ask riders to work through natural trail obstacles along the marked trail.

Most rides include a lunch stop on the first day. Ride management may transport your lunch and provide feed for all horses at lunch or other places on the trail. This varies from ride to ride and is at the discretion of ride management.

The judges examine the horses at the end of a day's ride and again before timing out on the next day. The final check after the ride is similar to the pre-ride examination. Competition is over when this final check is done. As soon as the judges complete the scores and placements, management presents awards and gives the riders a hard copy of their horse and horsemanship or team scorecards.

NATRC designed the LeD to have a similar, condensed format with all these elements occurring on the same day.

From the scorecards and from the experience of competing, riders learn equitation, pacing techniques and methods of care that help their horses perform safely and well. Most importantly, when riders become familiar with how the animal's body functions and how it handles stresses, the riders can take actions that lead to improved health and performance of their horses.

Membership in NATRC

Membership is not required to compete or volunteer, but it does convey certain benefits, such as reduced entry fees, eligibility to vote, the opportunity to be a rules interpreter or approved judge, sponsor discounts, enhanced member services, automatic membership in the member's home region, and the opportunity to win regional and national awards.

All members, who meet minimum requirements, are eligible for year-end national and/or regional awards including high point horse and rider, high point teams (horse plus rider points), high average horse and rider, mileage recognition, other special awards, and the grandest of all, the President's Cup. Here, too, is the opportunity to support a strong national organization interested in the promotion of trails.

NATRC presents awards annually at its national convention, hosted each year by one of six regions. The conventions include educational seminars and talks, field trips when applicable, and "how to" sessions for riders and ride management. Scheduled into each agenda is free time for participants to enjoy the local sights, take pre-arranged tours, visit with one another, and shop for new trail gear at vendors who help sponsor the convention.

Come ride with us!



You'll have a blast as Fran Muench is in April at the 2018 Pine Grove Giddy-up CTR in Arkansas. Photo by Brandy Steele.



NATRC Competitive Trail Rides



RIDE STRUCTURE

NATRC offers several different divisions and classes of competition to introduce new horses and riders to the sport or to provide challenges for the more experienced, advanced competitors. Riders choose the division and class they wish to enter based on their horse's age and experience, their own age (junior classes are offered for riders ages 10 – 17), the weight of the rider plus tack, or the distance and pace.

Mileage, Divisions and Classes

Rides offer four divisions: Open, Competitive Pleasure (CP), Novice, and Leisure (LeD). Many first-time competitors start in the Leisure or Novice Division. Horses and riders who have excelled in the Novice Division are required to compete in one of the other divisions per criteria in the Rule Book. Weight classes within the divisions are one aspect of providing uniform conditions for evaluation of the horses.

NATRC uses soundness, condition, trail ability and manners over a pre-determined time and distance as judging criteria.

Mileage and timing for each division are determined according to NATRC rules as shown in the following table. Mileage in the Open Division is 25-35 miles for a "B" (1-day) ride, 50-

60 miles for an "A" (2-day) ride, and 80-90 miles for an "AA" (3-day) ride. The Open pace is 4-6 miles per hour with the time and distance depending on the terrain. Novice and CP riders travel a less difficult, shortened course not exceeding 24 miles per day or 40 miles for 2 days and at a slower pace (3.5-5 mph). Leisure Division is only offered as "B" (1-day) rides. Riders travel even a less difficult, shortened course of 8-12 miles at 3-4.5 mph.

Horses in the Open Division must be at least 60 months (5 years) old. The division is divided into classes consisting of Heavyweight (Hwt, rider and tack weighing 190 pounds or more), Lightweight (Lwt,

rider and tack weighing 100-189 pounds), and Junior (Jr, ages 10-17) riders. Junior riders can compete in Open, CP or Novice Heavyweight or Lightweight classes if they meet weight requirements.

Horses in the Novice Division must be at least 48 months (4 years) old. The purposes of the Novice Division are to prevent young horses from being overworked, to introduce new competitors to competitive trail riding, to instruct new riders in the proper care of trail horses, to allow riders to compete over a shortened course, and to provide a ride structure under the supervision of judges and management. This division consists of three classes: Heavyweight, Lightweight, and Junior.



Novices, one a first time competitor, at the 2015 Robbers Route CTR in Oklahoma.

Photo by Mike Collins.

Horses in the Competitive Pleasure Division must be at least 48 months (4 years) old. Competition follows the same distance and mileage guidelines as Novice Division, but competitors can go a little farther and faster in a particular ride. The purposes of this division are to allow experienced competitors to start young horses without competing against Novice Division riders, to allow experienced competitors to continue to compete without the demands of the Open Division, to introduce their horses to the more difficult Open level obstacles, and to provide an intermediate division between Open and Novice. This division consists of three classes: Heavyweight, Lightweight and Junior.

Horses in the Leisure Division must be at least 48 months (4 years) old. With shorter distances and a slower pace, the LeD is a great option for riders who are new to the sport, or those who have limited free time, new horses, or aged horses.

NATRC Ride Structure

Division	Classes	Distance in Miles			Horse Min. Age (months)	Pace (mph)
		1-day	2-day	3-day		
Leisure	Adult, Jr, Experienced	8-12			48	3-4.5
Novice	Hwt, Lwt, Jr	15-24	30-40		48	3.5-5
CP	Hwt, Lwt, Jr	15-24	30-40		48	3.5-5
Open	Hwt, Lwt, Jr	25-35	50-60	80-90	60	4-6

NATRC also offers a Distance Only (DO) option in all divisions for horses or riders otherwise ineligible to compete or for those who want to participate but not compete for awards. DO participants must follow all the ride rules with the exception of those pertaining to leg protection (LeD may also use leg protection). Participants may choose not to do judged obstacles, but they must participate in veterinary checks for soundness and condition (not done in LeD), pulse and respiration (P&R) and other checks for the welfare of the horse. DO participants receive mileage (distance only) credit. They receive no placings or awards, and they do not count as competitors for establishing points. They do, however, receive scorecards with informative comments at the end of the ride. DO participants may do 1 day of a 2-day Open, CP or Novice ride.

Timing

Timing and pacing are important factors in trail ride competition. Handled well, they can contribute to the horse's performance. Proper pacing is also needed to avoid time penalties.

Management sets a minimum and maximum total time for the day's trail. There is a 30-minute window between the minimum and maximum time, and competitors must arrive back at camp within that period to avoid penalty points.

If a horse arrives at the finish line within 30 minutes before minimum time or within 30 minutes after the maximum, the horse is penalized one point for each minute early or late. The rider (or LeD team) is also faulted. The actual deduction amount is at the discretion of the horsemanship or LeD judge. Thus, a team could ride well but be out of the ribbons with perhaps only a small timing error.

A horse and rider team arriving more than an additional 30 minutes early is disqualified. If more than an additional 30 minutes late, the horse and rider team receive completion points and mileage only.

The terms *total time* and *riding time* are not the same. The total time is the time that elapses between leaving the starting line and crossing the finish line. Riding time refers to the actual riding time exclusive of the lunch and P&R stops, whereas the total time includes them. Management may also establish specific minimum and maximum times for arriving at certain points along the trail. For an in-depth discussion, see Timing and Pacing in Part 4, Competing in a Competitive Trail Ride.

P&R (Pulse and Respiration) Stops

Each horse's pulse and respiration rates are taken at least twice (once for LeD) each day at points of stress on the trail, and sometimes at lunch and in camp. Ride time allows 15 minutes for a P&R stop. In Part 4, The Horse's Scorecard explains P&R scoring and The Rider's Scorecard, Trail Care, explains procedures at P&R stops.

Forward Motion Point

Because NATRC rides are not races, getting back to camp first does not assure a ribbon. The last mileage checkpoint each day is a properly identified point, the Forward Motion Point, about 2 miles (1 mile for LeD) from the finish. Competitors must maintain forward motion from this point via the direct route of the marked trail. The purposes are threefold.

- A rider has to pace the horse at least the last mile or two of the ride.
- It prevents an early rider who is ahead of their 30-minute window from stopping just outside the finish line to wait for minimum time.
- If the rider has properly paced the ride up to the forward motion point, it provides a distance of walking to cool the horse.



Only 2 miles to camp remaining for
Open, CP and Novice riders.

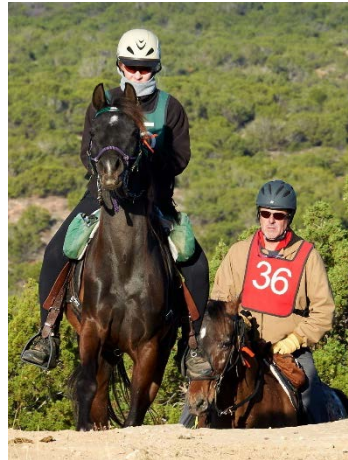
ELEMENTS OF COMPETITION

Besides the nuts and bolts of the structure of a ride, there are several important intangible elements.

Basic Skills for Competition

Some of the skills your horse should master for a competitive trail ride include:

- standing quietly and obediently for a veterinary judge to examine the head, mouth, back and feet (Open, CP, Novice)
- trotting in hand (all divisions) and longeing (Open, CP, Novice)
- standing tied to a trailer overnight (Open, CP, Novice)
- responding to leg aids and to rein control
- comfortably walking, trotting or cantering on the trail
- calmly travelling alone or with a group of horses on the trail
- walking calmly across logs, through water crossings, and over bridges
- being accustomed to narrow trails and steep hills



Riders find steep climbs at most CTRs including the Pole Canyon Ranch, Texas, 2018.
Photo by Jonni Jewell.

Safety

“Do what you do safely and well.” Safety awareness plays a prominent role in NATRC competitions – from preparing for the ride, getting to the ride, setting up your camp, presenting your horse to the judges, and in all aspects on the trail. The various topics of horsemanship in Part 3 cover specific safety aspects.

Ride chairs arrange for adult safety personnel to be available on the trail to assist any horse or rider in the event of an emergency. These people may be horseback or on ATV's or other vehicles. Equipped with communication devices, they monitor rider progress, plus search for and assist any horse and rider team who does not show up at the next checkpoint.

Management also arranges for a veterinarian to be on call in case of a horse illness or injury.

Sportsmanship

Sportsmanship is about competing fairly, respecting the other competitors, and being considerate to judges, ride management and volunteers. Good sportsmanship is an important element of NATRC.



Helping a fellow competitor at the Rocky Mountain Dream, Colorado, 2006.

Photo by Cristy Cumberworth.

Education

Through evaluation by qualified judges, use of digital and print media, and by encouraging camaraderie with one another, NATRC promotes and provides educational tools to help the rider improve the performance and care of the competitive distance horse.

Prohibited Substances and Treatments

NATRC sanctioned competitive trail riding is a drug-free sport. We are all about the horse.

NATRC's rules against the use of prohibited substances and treatments in equines during our sanctioned rides are both to protect the equines from harm and to ensure fair competition. Equines should compete under their natural abilities without the influence of any drug, medication or veterinary treatment. Furthermore, the rules promote the philosophies of NATRC, especially "to demonstrate the best methods of caring for equines during and after long rides without the use of artificial methods or stimulants". Competition begins at the time of the initial presentation for the preliminary veterinary exam and ends when an equine successfully passes the final veterinary exam, or has been pulled or disqualified.

NATRC's Rule Book contains a section describing the terms of the drug rule. In addition, the drug appendices, posted at www.natrc.org, list:

- specific prohibited substances (Appendix A),
- prohibited categories of substances (Appendix B),

- allowed substances (Appendix C),
- known threshold levels of substances (Appendix D),
- guidelines for detection times for therapeutic substances (Appendix E),
- prohibited treatments (Appendix F),
- allowed treatments (Appendix G), and
- a comparison of some differences with what the American Endurance Ride Conference (AERC) allows (Appendix H).

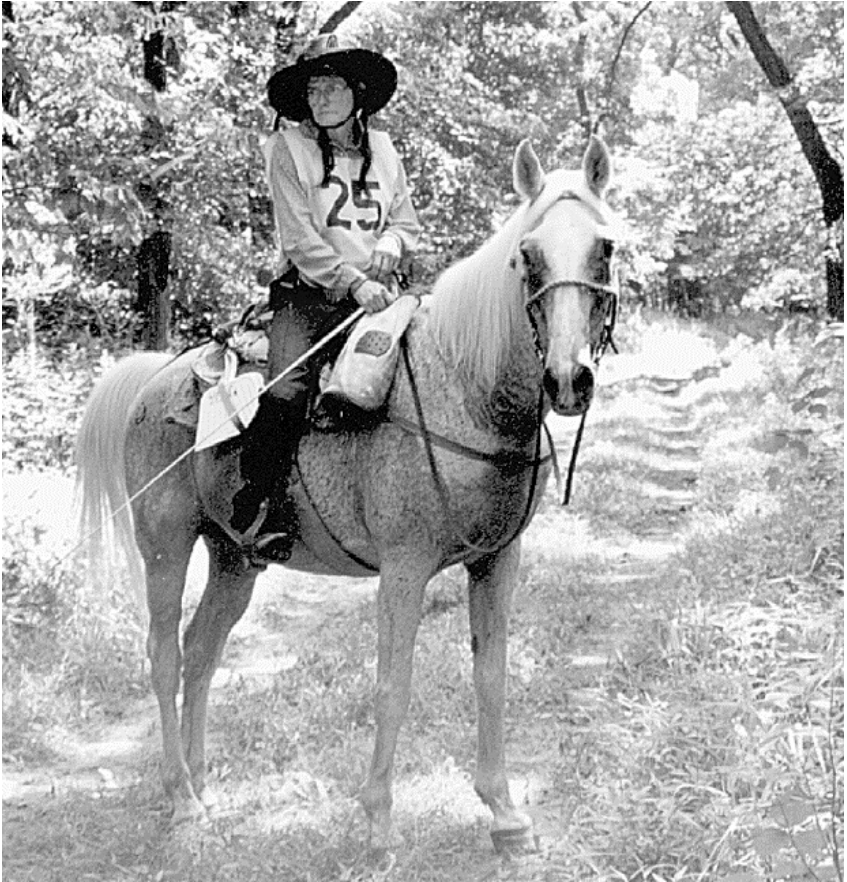
By entering an NATRC competition, you give implied consent for NATRC to collect blood sample from your horse and to submit it for testing. NATRC selects which rides and which horses to collect samples from at random. The Veterinary Drug Committee investigates any laboratory report indicating the presence of a prohibited substance and determines if there is a violation. If there is a violation, the Protest Committee determines the penalty.

Any rider/owner violating our drug policy will forfeit completion of, and any placing earned for, the ride. NATRC may impose additional penalties.

Recap

NATRC:

- ☐ Bases divisions on experience and ability
- ☐ Bases classes on weight and age (juniors)
- ☐ Times rides with a 30-minute "window" in which competitors must complete the marked trail
- ☐ Checks horses at P&R points along the trail
- ☐ Conducts judging in camp and on the trails
- ☐ Requires that riders maintain forward motion between the forward motion point and the finish line
- ☐ Recommends certain basic skills for a competitive trail horse
- ☐ Strives for a safe competitive environment
- ☐ Encourages sportsmanship and education
- ☐ Is a drug-free sport



Elmer Bandit, owned and ridden by Mary Anna Wood, Region 6 member from Missouri. Elmer, pictured here at age 29 at the Indian Cave CTR in Nebraska in 2000, accumulated 20,780 lifetime miles to become NATRC's mileage record holder. He passed at age 38 in February 2010. In 1986, he was the first horse inducted into the NATRC Horse Hall of Fame. By the end of 2019, Mary Anna had 24,200 miles completed in competition by riding other members' horses. Photo by J. R. Kendall.

Preparing for a Competitive Trail Ride

2

SELECTING THE RIGHT HORSE

The horse you already have might very well be the right one. Often the family or backyard horse is a potential champion, because the key to success is not the price you pay, but what you put into it. Any horse with the right conformation and attitude can be successful in distance riding. NATRC year-end high point horses in the Open Division have included American Quarter Horses and Quarter Horse crosses, Arabians and Arabian crosses, American Indian, American Saddlebreds, Appaloosas, grades, Kentucky Mountain Horses, Missouri Fox Trotters, Morgans, mules, Mustangs, a Norwegian Fjord, P.O.A.s, Spanish Mustangs, Tennessee Walking Horses, and Thoroughbreds. If you don't have a trail horse, however, and want to choose one that might win some ribbons, consider the suggestions in this chapter.

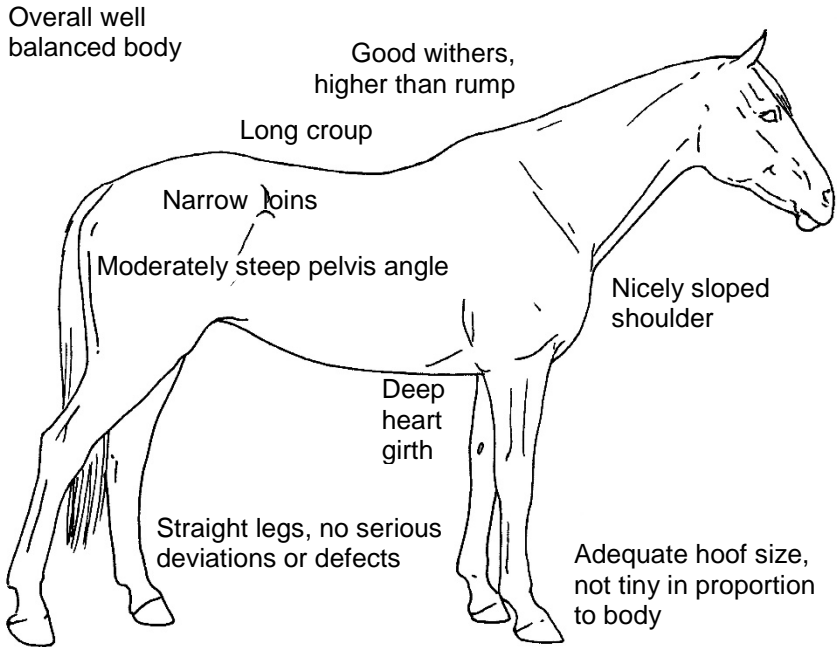
To start competing, a horse must be at least 4 years old for the Leisure, Novice and CP Divisions and 5 years old for the Open Division. Experienced veterinarians chose these age minimums to protect horses from injury by working them when they are too young to withstand the rigors of long distances.

Part of the equation is natural talent for distance riding; some horses have it, some just don't.

Desirable Conformation

In looking at a prospective trail horse, Deb Bennett, Ph.D., conformation specialist, thinks certain attributes are desirable. The legs should be straight and hoof size should be adequate. The circumference of the cannon bone 1" below the knee should be at least 8" per 1000 pounds of body weight. A horse with a lightly built body will have an advantage over the heavily built horse because it can cool down more rapidly. It is desirable for the loins to be narrow

and flexible so the horse can efficiently use the hindquarters for going up and down hills. It also helps if the croup is long and the pelvis angle moderately steep. The horse should appear as if the haunches are pushing rather than the forehead pulling. A steep shoulder or pastern angle will give a rough ride. A deep heart girth that allows plenty of room for the heart and lungs is desirable. The back should not be too long.



Ideal trail horse conformation.

Distance riders usually look for an angular body type, overall body balance, big barrel and heart girth, short cannon bones, medium length pasterns, a nice round foot, good withers, large well-placed eyes, cooperative attitude, a smart and trusting disposition, and smooth action. Riders also prefer a horse that has been pasture-raised versus stall-raised.

Desirable Temperament

Temperament is extremely important. The horse should be reasonably well mannered or at least potentially responsive. He or

she should be willing to go when asked and even enjoy competing, but still be able to settle down to take advantage of rest periods. The latter usually comes with experience.



Bonded pair. Photo by Brandy Steele.

Another part of the equation is natural talent for distance riding; some horses have it and some just don't. There are many examples of winning competitive trail and endurance horses that have less than perfect conformation but more than average "heart," or desire.

The most critical factor might just be how well you bond with a particular horse. You and that animal are not only going to spend a lot of time together; you will need to be able to depend on each other. You will probably do better with a horse you "fall in love with" than one you scientifically analyze. If possible, it is best to spend some time caring for and riding a horse before you buy it.

Finally, consulting a veterinarian before actually making a purchase could save you a lot of time, money, and frustration further down the trail.

Recap

Characteristics of a Potential Competitive Trail Mount

Contributed by Nancy Smith Kasovich

Horsemanship Judge, Region 1

- ☐ Conformation suitable for the demands of the sport
- ☐ Smooth gaits
- ☐ Soundness and good health
- ☐ Cooperative, willing disposition
- ☐ Confident, bold attitude
- ☐ Inquisitive and friendly nature



In 1989, Casey, a grade horse owned and ridden by Bev Tibbitts of California, was the second horse inducted into the NATRC Horse Hall of Fame. Among his many accomplishments, Casey won the President's Cup in 1971 and 1979, and in 1972, he placed in the top 10 at the Tevis Cup 100-mile endurance ride. He completed 2320 competition miles.

For 26 years, Bev Tibbitts, with wisdom and sly humor, was a driving force in the early development years of the sport of competitive trail riding. Prior to 1968, Board members were not elected by the general membership. Bev hosted the meeting that formulated the election system we have today. Ride Stewards (Rules Interpreters) were her brainchild. After getting her judge's card in 1970, she became a member of the Judges Committee – an assignment that lasted 22 years of which 11 years she was co-chair. During this time, she wrote the first version of the Riders Manual and the horsemanship section of the new Judges Manual.

This photo, taken at the 1969 Uvas Dam CTR in California, became the model for NATRC's logo.

BUILDING FITNESS

Contributed by Nancy Loving, D.V.M., Competitor, Past NATRC and American Endurance Ride Conference (AERC) veterinary judge, author of "All Horse Systems Go", "Go the Distance", "Conformation and Performance", "First Aid for Horse and Rider"

Riders with the most experience in competitive distance sports are often the ones most reluctant to recommend a conditioning "program." Why? Because there are too many variables. However, we can discuss some of the basic guidelines.

Basic Conditioning Principles

Fitness does not happen all at once. With a reasonable training program, the cardiovascular system might take 3 months to develop into a state of fitness, the muscle system 3 to 6 months, the tendons and ligaments 6 to 12 months, and the bones 1 to 2 years.

An often overlooked but a very important part of fitness is flexibility. Such things as doing passive stretching exercises with your horse, enticing your horse to reach way back for a carrot, or doing dressage or other gymnastic exercises can develop it. A flexible body is more resistant to injury.

LSD Exercise

The foundation of any good conditioning program is long slow distance (LSD) exercise using aerobic metabolism. This means walking and easy trotting (4-7 mph) over relatively level ground and walking up a few hills to start. LSD riding develops muscle and cardiovascular endurance and lays a foundation for building strength.

Many factors affect the level of preparation your horse has had.

- His housing - has he been in a box stall or on pasture or in training?
- His age - is he 3 years old or 10?
- The weather - is it winter turning to spring or the middle of the summer?
- The terrain - is there still snow on the ground? Is it hard-packed or rocky? Is it flat or hilly?

Getting Started

A good starting point would be 30 minutes to an hour of walking and

trotting every other day or four times a week. Then ask your horse for longer periods of trotting and increase the duration of exercise over time. If your horse goes 4-9 miles in an hour, he is probably working in his aerobic (oxygen utilizing) heart range of 120-150 bpm (beats per minute). The initial LSD conditioning could/should take 3-6 months.

Increasing the Workload

After your horse can comfortably do one level of workout, you need to ask him to do more in stages to gain a training effect. Start by gradually increasing the time of the workout, but keep the speed the same. It takes about 2 to 4 days to see good or bad effects of a workout, so stay at one level for a few days before asking for more. If you increase again too soon, not only will you not know where you are in terms of the horse's wellbeing, you could cause some damage.

A good rule of thumb is to add 10 minutes about every 5 days. When you can comfortably do 2 hours, do a slightly faster pace or add more hills. You could ask for an incremental increase in duration or speed about every 5 days. Don't increase time and speed at the same time; make one change at a time. The horse should walk down the hills; too much speed too soon down hills is hard on the legs and tires the back and shoulders.



Eternal flame.

Photo by Bev Roberts.

Another rule of thumb is to increase the workload by no more than 20% per week. If you are going 10 miles one week, don't go more than 12 ($10 \times .20 = 2$; $2 + 10 = 12$) miles the next week. Any increase in duration or intensity of training needs to be gradual. In the words of Matthew Mackay-Smith, D.V.M., competitor, and former medical editor of *Equus* magazine, "We are trying to develop eternal flames, not Roman candles."

After about 3 months of LSD work, adding increased hill work helps build strength in muscles, tendons, and ligaments as well as increases the cardiovascular benefits. You could go up steeper hills, increase the speed going up moderate hills, or increase the number of times going up a hill. Again, make one kind of increase at a time, about every 5 days, and don't increase the work by more than 20% per week. Hill work 2 to 3 times a week should

provide a strengthening effect while 1 to 2 times per week can maintain a certain level of fitness once it has been reached. Steady training over a 6 to 12-month period should double the strength.

Training Rides

Open Division competition (50 to 60 miles in a weekend) requires that the horse see some long training rides in preparation. Ideally, a long training ride of 20 to 30 miles every 2 weeks should be part of a conditioning strategy. Within that 2-week period, incorporate three to four short training rides around the long ride. To protect the musculoskeletal structures from persistent concussion and strain, do not train more than 80 to 90 miles in a 2-week period.

*During all your training levels,
add variety to your workouts.
If you're getting bored with the
routine, so is your horse.*

Heart Rate

The heart rate of the horse is one of the best indicators as to how well the horse is adapting to the training schedule. During the LSD aerobic workouts, the heart rate should be around 120-150 bpm. If you are not using a heart rate monitor, right after a good workout (not after a cool-down), check your horse's pulse. Do this by using a stethoscope to listen to the heart just behind the elbow on the left side or by feeling with your fingertips the artery that runs just behind the jawbone. Count the beats in 15 seconds and multiply by 4. Then re-check the heart rate after 10 minutes. By the time you jump off your horse to check the pulse, it will have fallen 20 or 50 bpm already, so that is not really a good indicator of the working heart rate. The 10-minute recovery time is a good indicator of the level of fitness. At 10 minutes, the heart rate should be around 52-60 bpm.

A heart rate monitor may be used to determine both your horse's normal, resting heart rate and as a fitness indicator during aerobic and anaerobic exercise.

Another rule of thumb is that the 15-second count after 15 minutes should be around 15 (or 60 bpm). It's easy to remember 15-15-15. The heart rate should not be above 64 bpm after 10 minutes and certainly not after 30 minutes. In most NATRC rides, if the heart rate is 64 bpm or less at the 10-minute P&R check, the horse can go on. The 64-bpm recovery value that indicates an acceptable response is based on scientific observations and the experience of many horsemen. If the horse's heart rate is not recovering acceptably, back off to a previous level of exercise. Above normal

heart rates can also indicate pain or illness. If it's broke, you'd better take time to fix it.

Sustained aerobic metabolism is the foundation for long-distance competition. During the training process, the horse's aerobic capacity or efficiency is increased. The carbohydrates, proteins, and fats that the horse eats are broken down into blood glucose, glycogen (glucose stored in muscles and liver), and free fatty acids (stored as triglycerides) for sources of energy. In aerobic metabolism, a continuous supply of oxygen to the cells enables complete burning of glycogen, free fatty acids, and triglycerides for energy production. Slow-twitch (slow firing, more sustained) muscle fibers operate during this type of activity.

Anaerobic (without oxygen) metabolism kicks in when the horse is pushed faster or harder than his training level or in sports that require short bursts of speed or intensity. Oxygen demands exceed that provided, and other, less efficient, metabolic pathways take over. Working heart rates above 160 to 180 bpm usually elicit anaerobic metabolism within the muscles. Fast-twitch (more bulky) muscles are the ones that fire without oxygen. Lactic acid is a by-product of metabolism, and it accumulates in the blood during anaerobic metabolism. Heart rates remain elevated until the lactic acid levels decrease.

Interval Training

After a strong foundation of LSD riding (3 to 6 months), occasional short periods of anaerobic work can help raise the aerobic capacity, the level at which aerobic metabolism still functions. Horses (or humans) are not designed for sustained anaerobic activity, and too much will cause structural failure. Judicious use of short intervals (2 to 3 minutes) of flat gallops or canters and trots up hills followed by good recovery periods (5 to 20 minutes) can be useful, advanced training tools.

During all of your training levels, add variety to your workouts. If you're getting bored with the routine, so is your horse. When you're walking down the trail, detour up and down some banks. Weave in and out of some trees. Back between two rocks. Take a different route. Go a different direction. Fartleks (based on a Swedish word for speed play) are unstructured, brief periods of alternating fast and slow types of activity designed to be fun for horse and rider. Fartleks break up the monotony of a training session and can have a beneficial training effect. Follow any fast efforts by slow periods of at least equal length.

Other Considerations

Rest

You should rest a horse 1 day for every 10 miles of competition. Rest means turning out, then light walk/hack riding after 4 to 5 days off.

If your horse has a slow but consistent (1 to 2 times per week) winter schedule, you could expect to attain the previous level of fitness within 2 months. However, if not ridden at all, attaining your horse's former fitness level will take longer.

Over-training

While the heart rate is one of the best indicators of the horse's progress, it is only one of the indicators. There is a saying that for every mistake you'll make for not knowing, you'll make 10 for not looking.

You must look at the whole horse. Check for puffiness or heat, indications of overexertion, in the legs and joints. Watch for that bright sparkle in your horse's eye. Pay attention to the horse's attitude and appetite. A horse that turns from happy to grouchy, eager to reluctant, alert to mopey, an eager-eater to picky eater, or from having a shiny coat to a dull coat can be suffering from over-training.

Mental Fitness

Mental fitness is vital to your long-term goal. You must know your horse as an individual; you must know what the signs are that your horse is healthy and happy; you must watch for deviations from that. You have to know what's normal before you know what's not normal.

Sweat

The character of the sweat usually changes during the conditioning program. Sweat contains certain proteins that act similar to detergents to help the sweat spread over the hairs for good evaporative cooling. This action makes the sweat look frothy. With increasing exercise and fitness, there is less protein, and the sweat



Sweating fit horse at 2014 Eagle Ranch Ride, Missouri. Photo by Andy Klamm.

takes on a more normal thin, watery appearance. The salty residue left on the horse after the sweat dries represents the electrolytes lost during exercise.

Warming Up and Cooling Down

You must warm up the horse and cool him down. Go easy for the first mile or 15 minutes. Walk back the last mile. Many riders prefer to leave the saddle on for a while before taking it off, but your horse will cool out faster if you remove all the tack. In warm weather sponge or hose the sweat and dirt off the horse. In cooler weather, it might be more appropriate to put a cooler on the horse until he dries off. Think about how fast you chill when you have worked up a good sweat then stop and stand around for a while. Brush the horse when dry; fluff up the coat, especially in colder weather. Not only does it feel good, matted down hair loses its insulating properties.

Setting Goals

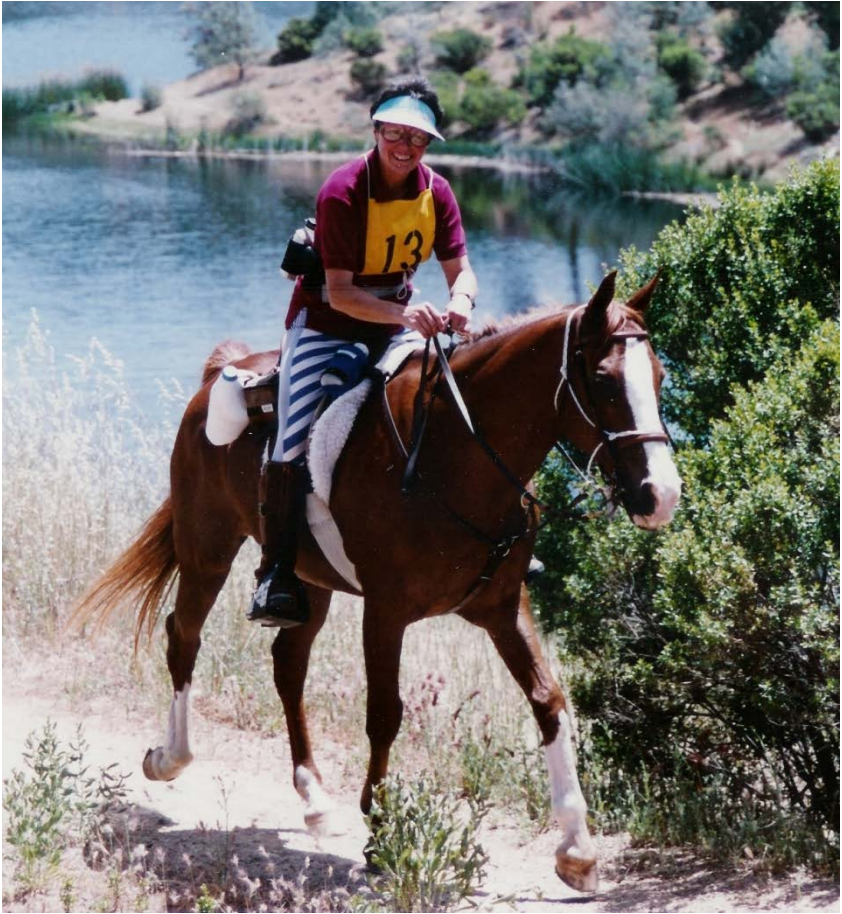
It's good to have goals. If you plan to do your first ride in June, you need to start conditioning before May. However, it is risky to have a rigid schedule. There are always interruptions - bad weather, you or your horse has an "off" day, your sister comes for a visit, your horse throws a shoe, and on and on. You can't train as fast on rocks as you can on good footing. Your horse won't perform the same when it's hot and humid as when it's cool and dry. Every horse has a weak link, and the whole horse can progress only as fast as the weakest point. If you fret about getting "behind" and push to catch up, you are heading for disaster.

Julie Suhr, the first (and, for a long time, the only) person to complete the Tevis Cup 100-mile Endurance Ride 20 times, said, "Ignorance and enthusiasm are a bad combination." She did not mean ignorance in a derogatory sense, but rather in a sense of a lack of experience. Don't get overly enthusiastic and push your horse into the classic training errors of too far, too fast, too soon. That's when injuries and breakdowns occur. On the other hand, don't be too conservative in training only to push too hard in competition. There are guidelines to help you progress, but there is no sure recipe for success.

Recap

Basic Conditioning Guidelines

- ☐ Long, slow distance exercise is the basis of a good conditioning program.
- ☐ Gradually increase the workload.
- ☐ Do not increase speed and distance at the same time.
- ☐ Cardiovascular system takes 3 months to develop.
- ☐ Muscle system takes 3 to 6 months to develop.
- ☐ Tendons and ligaments take 6 to 12 months.
- ☐ Add variety to your workouts.
- ☐ Know your horse's "normal".
- ☐ Be aware of other factors.
- ☐ Avoid the error of too far, too fast, too soon.



Barthart, an Arabian owned and ridden by Betty Young, a Region 1 member from California, became an inductee in the NATRC Horse Hall of Fame in 1991. Both Betty and her son rode him in competition throughout the western United States for a total of 7,170 miles, earning numerous national and regional awards plus two Tevis Cup completions. Photo supplied.

HORSE and RIDER HARMONY

*Contributed by Sue Eoff, President's Cup winner 1982
Past Horsemanship Judge, Region 1*

Human athletes have long recognized the value of cross-training, training in sports or activities other than their primary one. Staying too focused on one thing causes some muscles to get strong but the opposing muscles to get weak. Roger Bannister did not break the 4-minute-mile (running) until he started lifting weights and developed his upper body muscles.

If balance, connection, and harmony are ingredients you would like in your competitive trail horse, you might consider dressage in your cross-training program.

Cross Training and Dressage

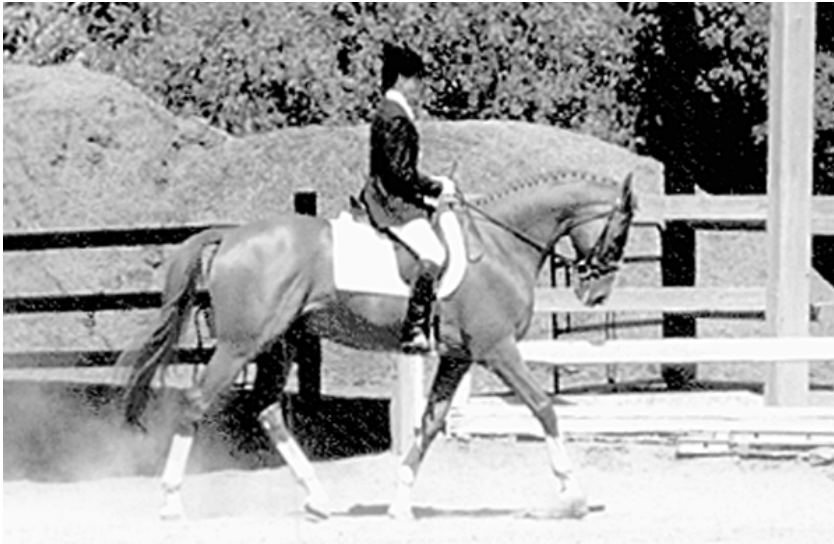
Dressage means training. Done correctly, it will make your horse more supple and responsive. You and your horse can do dressage in the winter when the trails have turned to mud and snow. You can do dressage once a week or once a month in the good weather months to reduce boredom in your distance training.

Dressage and trail riding complement each other.

Dressage is a complementary riding discipline to trail riding. It improves communication between horse and rider by developing the horse's responsiveness to the rider's seat, legs, and hands. The horse's responsiveness translates to safety whether you ride in or out of the arena. Improved balance and harmony help reduce wear-and-tear.

Do you remember those moments when you had a rocky streambed to cross, a deep gully to navigate, or a narrow trail to traverse? Were you feeling a light, balanced connection with your horse, or were you holding your breath hoping to survive the obstacle in one piece? There are no shortcuts for building a consistent responsiveness between you and your horse. The rider needs to develop balance, feel, and timing so the horse can learn to respond to the rider's aids without resistance or anticipation. The arena provides a "sterile" environment for the rider to develop his or her balance, to create controlled movements and direction in the horse, and to study the results.

The basis for a rider's balance is aligning the shoulders, hips, and ankles in a straight line. The challenge is keeping the alignment while in motion. Maintain balance through a subtle interplay of muscles contracting and relaxing at appropriate times. Learning the timing and feel of coordinating one's own body comes from practice, practice, and more practice. Ideally, you would have a coach of some kind to help you find the proper alignment and let you know when it is lost. Mirrors or a video camera can also be useful tools for checking your position.



Sue Eoff, author of this section, working her horse in a dressage test.

The next challenge is staying centered while creating forward movement and direction in the horse and learning to use your seat, legs, and hands to convey language. The rider's back and seat are the primary sources of influence, while the legs and arms reinforce the messages from the back and seat. The goal is to develop a clear, consistent vocabulary between the rider and horse so the rider can adjust pace and direction as desired.

Finally, the "sterile environment," which can be anything from a flat place in a field to a highly groomed dressage arena, allows you to study the reactions of the horse and assess the results of your work. Is the horse moving at an even, balanced pace? Is he allowing you to guide him through turns, circles, and even straight lines with your seat, legs, and hands? Will he make transitions, either up or down, quietly and obediently? Do you need to do a little more training in the "arena" or periodically have a tune-up day? All of these are

legitimate questions you should be asking yourself as your partnership grows.

Dancing with Your Horse

In many ways, forming a good partnership with your horse is like flowing with a good dance partner. In particular, ballroom dancing provides a way into the feeling state of responding to balance, cues, and timing from a leader. With time and practice, dance partners experience moments of effortless unity. The leader creates the dance figures by shaping his torso, which translates to slight pressures on the contact points of the follower. These pressures give the necessary signals for the follower to stay in synchrony.



Dance partners in action at the 2015 Oklahoma Robbers Route CTR. Photo by Mike Collins.

In riding, like dancing, movement of two bodies will not proceed smoothly when either of the partners' muscles remains contracted. This creates stiffness and rigidity. Fluidity comes from a continuous series of contractions to create power and relaxation to allow the energy to move.

The rider's or dance leader's ability to obtain results with the least resistance comes from feeling the horse's or dance partner's balance and readiness and then signaling accordingly. Asking a horse to canter before its balance and impulsion are in position would be like the leader asking his dance partner to execute a difficult maneuver before her balance permits weight to move through the supporting foot onto a new supporting foot. The rider, the leader, must constantly assess the horse's, the follower's, physical balance and

mental readiness, looking for opportunities to encourage moments of harmony.

This process takes time. Even as dance partners who have danced together for a long time walk through new and old moves to work on the balance and exactness of their footwork and their alignment with each other, so should riders present new exercises to

the horse with calmness and clarity at the walk. The first attempts at a new exercise may go well when the movements are set up well, but, in both dancing and riding, it is the repetition that reinforces the movement so the partners can recall it at will, that is, through muscle memory.

When cultivating the basic sensitivity to the harmony and balance necessary in the partnership between rider and horse, think about dance partners leading and following. The harmonious relationship of two living creatures is a result of trust, cooperation, and education - a partnership developed with time and patience.

Recap

Harmony between a Rider and the Competitive Trail Horse

- ☐ Dressage work can improve balance, connection and harmony.
- ☐ Learn to stay balanced and centered with your horse.
- ☐ Riding a horse is like interacting with a dance partner.
- ☐ Harmonious relationships between horse and rider take much time and patience.

HORSE HEALTH CARE

Routine health maintenance plays a big part in the overall performance of your competitive trail horse.

Vaccinations

The American Association of Equine Practitioners recommends yearly vaccinations for all equids for West Nile Virus (WNV), eastern equine encephalitis (EEE), western equine encephalitis (WEE), tetanus and rabies. Vaccination for other diseases depends on the risk of exposure in your area, in your situation. The best thing to do is to check with your veterinarian to find out which diseases are problems in your area and make an informed decision as to what's best for your horse.

Internal Parasites

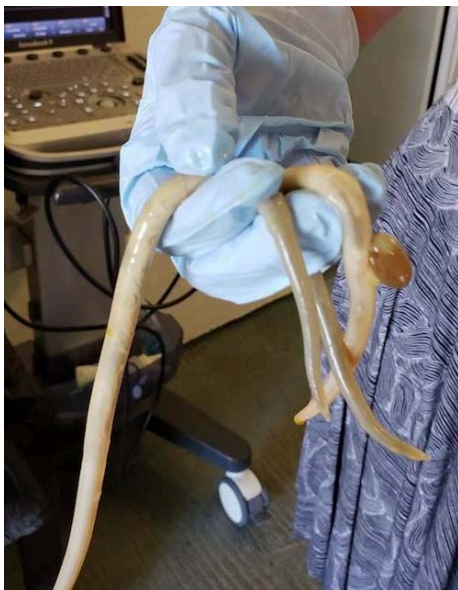
Horses ingest internal parasite larvae or eggs as they eat off the ground. Internal parasites cause damage as they migrate through a horse's internal organs or sap important nutrients through the horse's intestinal wall. Symptoms of a parasite infection can include a dull hair coat, unthrifty appearance, diarrhea, and/or poor performance.



Horses in the wild cover a wide range thus minimizing parasite exposure.
Photo by ArtyArt from Freemages.

Consistent attention to your horse's health care is extremely important before, during, and following a competitive trail ride.

Internal parasite control has greatly reduced the number of colic cases, improved the nutritional status, and lengthened the lives of horses over the years. However, the bases of knowledge and concepts on common strategies for using dewormers (anthelmintics) are more than 40 years old. Formerly, most parasite loads in horses were due to large strongyles (*Strongylus vulgaris*); due to diligent deworming, those infestations are now rare. Now small strongyles (cyathostomins) are the major parasite concern. Roundworms (*Parascaris equorum*) remain the most important parasite infecting



"These are typically a parasite seen only in young horses, but the mare was four," he said. "By two years old, the immune system typically eliminates ascarids, so seeing these numbers in an adult horse is very rare. I've seen horses die from not being wormed, or not being wormed properly. **This was the first time I had ever seen such a clear resistance situation.**"

Dr. Doug Thal, DVM, Santa Fe, New Mexico, 2018. Photo and quote used with permission from Horse & Hound, UK.

foals and weanlings. Tapeworms (*Anoplocephala perfoliata*) potentially cause colic.

Long-term, rotational and frequent use of anthelmintics, while effective against large strongyles, has resulted in high levels of drug resistance in small strongyles and roundworms. For the most part, adult small strongyles are susceptible to the anthelmintic class that contains Ivermectin and Moxidectin, but roundworms have shown resistance. Conversely, the benzimidazole class (ex: Fenbendazole and Oxibendazole) of anthelmintics is more effective against roundworms, but small strongyles show widespread resistance.

Further complicating the picture, larvae of small strongyles can live in a protected state on the pasture and within the horse (encysted) for prolonged periods, becoming active when the climate is advantageous for them to mature. Fortunately, these parasites are relatively mild (compared to large strongyles) and tend to cause problems mainly when present in high levels. Some horses show more natural resistance to the parasite than others.

With these considerations in mind, current recommendations for treatment are based NOT on frequent anthelmintic treatments which ultimately lead to resistance, but on using the most effective anthelmintic at the appropriate time of year that would most likely inhibit the life cycle (in the spring in the north, fall in the south). In addition, counting the parasite eggs in the horse's fecal sample (fecal egg count) is strongly recommended to evaluate the relative parasite burden in individual animals and the effectiveness of particular wormers in different situations.

Tapeworm infections are relatively common in moist areas, have the potential to cause disease, but are difficult to diagnose. Only certain products are effective against tapeworms. In addition, there are other parasites not mentioned here.

Thus, one sees that there is no "one size fits all" recommendation for parasite control. It depends on the housing situation (dry lot or pasture), the possibility of a drug-resistant population of parasites on the premises, age of the horse (over 3 years of age vs. a foal or weanling), season of the year, and numbers of eggs the horse sheds. Your veterinarian can help you decide what's best for your situation.

Dental Care

In addition to parasite control, good dental care makes a huge contribution to the health and longevity of horses. A 30-year-old horse used to be a rare thing, and now there are many horses that are still active well into their 20's. Your veterinarian should check your horse's teeth in the fall so your horse can go into winter without eating problems.



Photo by Alexas Foto from Pixabay.

Precautions

Awareness of your horse's well-being is a continuous process. Vaccinations certainly help prevent diseases, but they don't claim to win against overwhelming odds. We apply the same principals to horses as we use ourselves to cut down our own disease exposure.

A stressed horse is more susceptible to disease. Stress can be in the form of heavy training, bad weather, trailer hauling, poor diet, bad feed, new environment, and so on.

Do not knowingly expose your horse to a sick one. If you have more than one horse and one is sick, take care of the healthy one first, then the sick one. Disinfect feed or water buckets that a sick horse has used before you use them for a healthy horse. Don't use grooming equipment or blankets from a horse with skin problems on a healthy horse. If you get a new horse, keep him separated from your others for a couple of weeks so you have a good idea he isn't incubating a disease.

It is not a good idea to let your horse touch noses with other horses you meet on the trail.



Stablemates. Prohibiting nose touching not critical here. Photo by Jim Edmondson.

At rides, just as we wouldn't think of putting our lips on a public drinking fountain, it's better if all the riders use buckets to get water from a common source (if it's provided) rather than let all the horses drink from a common trough. From a practical viewpoint on the trail,

this practice is often hard to follow. If management hauls water to P&R or lunch stops, they probably do not have water buckets for each horse. It's at least better if several 5-gallon buckets are used than one large trough.

Many horses love to drink from a muddy puddle, and if water is scarce on the trail, that's better than nothing - even if 20 horses ahead have already used it.

You can't keep your horse in a bubble, but you can use good sense to minimize unnecessary stress and exposure.

If you are planning to compete in a ride in another state, check ahead of time on that state's particular entry requirements for health certificates, EIA (Coggins) test, and other documents.

Recap

Basic Horse Health Requirements

- ☐ Vaccinate per your veterinarian's recommendations for your area.
- ☐ Deworm based on your horse's situation and environment.
- ☐ Have dental care performed as needed.
- ☐ Pay conscientious attention to your horse's health and well-being based on his age, environment, and activities.
- ☐ Take precautions to limit exposure to stress and disease.



Rebel's Raider, owned and ridden by Marilyn Hunter, a California Region 1 member, became an inductee in the NATRC Horse Hall of Fame in 1993. Raider, a half-Arabian, half-Appaloosa gelding, earned 6,060 miles in competition during his career. Photo by Creative Concepts.

Hoof Care

*Contributed by Mike Coker, C.J.F., D.V.M.
Past Veterinary Judge, Region 5*

Healthy, sound hooves are of utmost importance to a competitive trail horse. There are a number of factors that affect hoof health and a variety of options that the horse owner has to address those factors. Because healthy hooves are so necessary for distance riding horses, all horse owners should become as well informed as possible about their own particular horse's needs. As the old saying goes, "no hoof, no horse."

Nutrition

Keeping a horse on a good plane of nutrition is essential for proper hoof growth. If the body does not receive the proper nutrients in appropriate amounts, it cannot produce a healthy hoof. For most horses, this simply means a good quality food fed consistently in sufficient quantities.

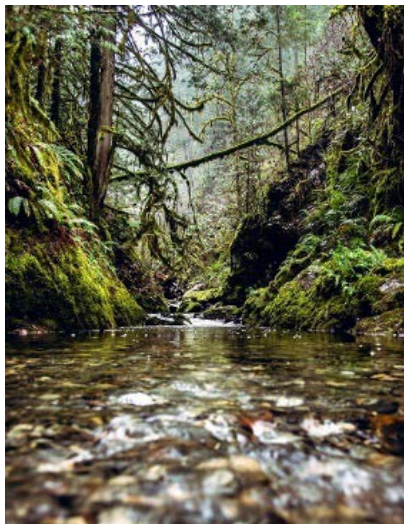
If you want to give additives, first be sure you know what goals you want to achieve. Do you want your horse to grow a faster hoof or a better quality hoof? If you are going to give a multi-purpose supplement, be sure to have your feed analyzed to guard against nutritional imbalances (i.e., too much selenium can be detrimental or even toxic). Body metabolism determines the rate of hoof growth, and feed additives do not influence metabolism. However, if a horse is on a poor nutritional plane, neither the rate of growth nor the quality of growth will be good. In that case, you can improve the quality of hoof by supplementation.

The average horse gets all he needs to produce a good strong hoof from forage and grain. Some horses are not able to utilize these nutrients efficiently, and therefore a supplement may help. A hoof supplement that contains 2000 mg dl-methionine, 20 to 30 mg biotin and 2 to 4 oz. yeast seems to help these horses. You cannot help the hoof that is already there; you can only help the horse grow a better hoof. Since it takes 9 to 12 months to produce a new hoof that is how long you need to try a supplement before deciding if it is working.

*The quality of hoof care greatly influences
a competitive trail horse's long-term
soundness and ability.*

Environment

The environment surrounding the hoof is critical to its health. The hoof cannot respond quickly to changes in the environment. It can adapt over time to a dry environment or less successfully to a wet environment. However, where the climate changes radically from wet to dry or vice-versa, the hoof is at a disadvantage.



What is your climate norm? Dry as the photo on the left by Bill Wingle, wet as the photo on the right by Vlad Vasnetsov (from Pixabay), or somewhere in between?

The hoof gets most of its moisture from the circulatory system. In dry conditions, it is difficult to provide enough moisture to keep a hoof healthy. If you live in an area where clay is prevalent, be sure to clean the dried clay from the hooves, as it will pull moisture out of the hoof. In wet conditions, providing a barrier to the wetness may be beneficial. There are several commercial sealants available.

During rainy periods, it is also helpful to keep pastures cut short and to keep horses out of low, boggy areas. Stalls and paddock areas should be kept clean and free from manure and urine. When fresh, these waste products provide a wet environment, ripe for infection from bacteria and fungi.

If you choose to use a hoof conditioner, pick one that does not contain pine tar, turpentine, or petroleum products that would dry the hoof even more. Allowing the water trough to overflow and provide a puddle to stand in while drinking was once an acceptable method to fight dryness. However, the continuous change makes it difficult for the hooves to adapt.

Growth Patterns

Hoof growth is fastest during spring and slowest during summer and winter. Foal hooves also grow faster than adult hooves. Adult growth rates average 1/4 to 3/8 inch per month. In the normal unshod horse, most of the wear occurs at the toe. To compensate for this and because of the angle at which the hoof strikes the ground, most of the growth appears at the toe.

The angle of the wall at the toe and the angle of the wall at the heel should be the same. In other words, a line drawn down each should be parallel. Additionally, the angle of the wall at the toe, or the hoof angle, should match the horse's pastern angle, or the angle from the fetlock down. The plane of the hoof on the medial (inside) to lateral (outside) axis should be perpendicular to the leg, assuming the leg is straight. It is important to maintain this hoof conformation in order to minimize excessive joint wear.

The rings that appear on the hoof capsule from time to time merely indicate changes in the speed of hoof growth. These are usually due to changes in body metabolism (i.e., changes in feed, season, exercise) and are not indications of hoof pathology unless other signs of problems are evident.

The sole of the hoof exfoliates continually resulting in that usually white, flaky material that comes off when you clean a hoof. The frog sheds twice a year, usually during spring and fall. It should remain prominent providing shock absorption and movement of the hoof at the heels.



Photo by JacLou DL from Pixabay.

Trimming

Trimming the normal hoof is an imitation of normal wear. Owners have the average shod horse trimmed on a 6-week interval during the warmer months, or when activity levels are higher, and on a slightly longer interval during the winter. The unshod horse can go 6 to 10 weeks between trims depending on growth and wear patterns.

The normal hoof drops in angle between trimming or shoeing periods. In the unshod hoof, this is because most of our horses do not travel as much as nature allows them. The shoe prevents normal wear in the shod hoof. Therefore, the object is to remove the excess

toe and restore the normal hoof-pastern axis. Mediolateral (side to side) and anterior-posterior (front to back) balance are critical for the long-term health of the hoof, leg, and the rest of the skeleton.

Having a broken back hoof-pastern axis (hoof angle too low) over time may result in degenerative diseases such as navicular syndrome, ringbone, and osselets, and soft tissue problems such as flexor tendon and/or suspensory ligament damage. Having a hoof out of mediolateral balance may result in degenerative diseases such as ringbone, sidebone, or navicular syndrome and hoof problems such as sheared heels.

When working on horses with legs that are less than ideal, make sure your farrier takes great care to balance the hoof to the leg. Most horses that toe out have hooves that are longer on their lateral (outside) wall, which the farrier must take into account during trimming. These horses also wing in with their legs during the swing phase of their stride, which may lead to interference with the opposite leg. Most horses that toe in have hooves that are longer on their medial (inside) wall. These horses usually have no interference problems, but they may strike you in the ankle as you lead them.

Recap

Hoof Care for the Competitive Trail Horse

- ☐ Good nutrition is essential for optimum hoof health.
- ☐ Environment affects hoof condition.
- ☐ Growth patterns are determined by season and horse's physical condition.
- ☐ Conformation of hoof should match conformation of horse's pasterns.
- ☐ Trim the hooves to match normal wear.

HOOF PROTECTION

There are no shoeing restrictions in NATRC competition; all types of hoof boots that provide sole protection are allowed, however any attached strap or accessory must not extend above the pastern. Socks under hoof boots are allowed if they do not extend above the pastern. However, NATRC prohibits leg protection. For competition purposes, we define the leg as all structures above and including the coronet. You may *not* use all manner of protective devices, such as bell boots, splint and tendon boots, polo wraps, pastern wraps, fetlock boots, and so on, on your horse's legs during competition.

As with any tack or equipment, you need to figure out what works and what doesn't work for your horse well before the ride.

For the normal horse, sole protection becomes necessary when wear exceeds growth.

Shoeing

*Contributed by Mike Coker, C.J.F., D.V.M.
Past Veterinary Judge, Region 5*

For the normal horse, shoeing becomes necessary when wear exceeds growth. You can use shoes on a horse with problems at any time to protect or correct the defect. The shoe should be thick enough to withstand normal wear during a shoeing period. Determine the width of the shoe for a particular hoof by measuring the width of the wall at the quarter and multiplying by two. The length of the shoe should cover the heels and have enough length to allow for growth and expansion.

The type of material used for the shoe will depend on the terrain covered, use of the horse and owner preference. Shoe material choices include steel, aluminum and plastic. Use a hard facing material (applied to the surface of the shoes to increase their life) with care because on hard surfaces, such as rock or concrete, this will cause the footing to be less stable.

You can improve travel on loose footing or snow with the addition of screw-on caulks as long as you remove them when working on hard ground. Caulks will concentrate the impact force of each step as opposed to allowing the entire hoof to absorb the shock.

Pads are helpful in rocky or abrasive terrain. Exercise caution when using pads in wet climates as mud and dirt can easily find their way under the pad. Work with your farrier about using a packing material suitable for your conditions.



Hoof Boots

New boot designs have given riders many more choices in the care of their horses and in the options for hoof protection in competition. Hoof boots, which the rider applies and removes from the horse's hooves, allow the horse to be barefoot when not working. NATRC allows all types of hoof boots that provide sole protection. *However, any attached strap, keeper, or gaiter must not extend above the pastern.*

Some of those boots do provide incidental heel protection because the gaiter covers the heel. There are downsides, though. The gaiter can rub and cause sores and trail debris caught inside the boot can be irritating and cause sores.

Other

Barefoot and shoeing enthusiasts alike have another option for sole protection in the form a flexible resin that you spread onto the sole of the hoof. Application of the material helps protect the sole, lets the horse feel the ground and helps the sole to toughen and thicken.

Recap

Hoof Protection for the Competitive Trail Horse

- ☐ Shoe your horse when necessary to protect and preserve the hooves.
- ☐ Choice of sole protection, including horseshoes, hoof boots, spread on resin, or no protection at all, is at the discretion of the rider.



Hickory's Country Gold, ridden and owned by Bill Hinkebein, Region 6 member from Missouri. Hickory, a Missouri Fox Trotter inducted in the Horse Hall of Fame in 1996, earned the President's Cup, nine National Championships, a Championship Challenge, numerous regional awards, and covered 5050 competition miles during his competitive career. Photo supplied.

NUTRITIONAL REQUIREMENTS

Any performance horse needs energy, water, fiber, protein, salt, vitamins, minerals, and some electrolytes. Fiber, carbohydrates, fats and protein can provide energy.

Energy

Metabolism (conversion of food energy to mechanical energy) is either aerobic (using oxygen), which is used at slow speeds and long distances, or anaerobic (limited oxygen), which is used for fast speeds of short duration. Competitive distance horses derive most of their energy from aerobic metabolism with fat or volatile fatty acids (from fiber) as the major contributor. With aerobic metabolism and adequate conditioning, fat as the predominant energy source may "spare" glucose and other carbohydrates.

Fiber

Fiber, or roughage/forage in the form of grass and hay, is the most "natural" horse feed; it's what they're designed to eat; it's the mainstay for competitive distance horses. Forage not only provides energy and nutrients, it keeps blood flowing to the digestive tract, stimulates thirst and serves as a reservoir for water and electrolytes.

*A good conditioning program goes
hand-in-hand with a good feeding program;
one is of little value without the other.*

Microbes in the hindgut break down the fiber in forage into volatile fatty acids (VFA's) that are continually released and converted to glucose in the liver or used aerobically by the muscles directly. At a competition, provide hay free choice. Distance horses also utilize glycogen stored in the muscles and triglycerides in the muscles and fatty tissue.

All forage is more digestible when it is younger, less mature. Lignin, the skeleton that keeps plants upright, is not digestible and increases as the plant ages. Oat and grass hay have less lignin and more digestible cellulose and hemicellulose (made up of a variety of sugars) than alfalfa.

Alfalfa is higher in protein than grass or oat hay, and protein metabolism creates more heat than fat or carbohydrate metabolism. Thus, extra protein can be detrimental to cooling efforts of the competitive distance horse.

Alfalfa is high in calcium, low in phosphorous. There is evidence that horses on a high calcium diet have a decreased ability to mobilize calcium, which is necessary for proper muscle function, from tissues in times of stress. When calcium is lost in sweat, these horses might be slow to correct the situation and be subject to "thumps" (synchronous diaphragmatic flutter).

For these reasons, many prefer to feed grass or oat hay or a grass/alfalfa mix that is more than 50 percent grass rather than straight alfalfa hay to competitive distance horses. However, on the day of the ride, the extra calcium might be beneficial, and horses love it.



Photo by Rihajj from Pixabay.

Carbohydrates

Carbohydrates are in grains, concentrates (grain plus vitamins and minerals), fresh green grass, and alfalfa hay. Starches (from grains/concentrates) are readily digestible and converted to glucose in the small intestine. From there the body oxidizes glucose for energy or stores it as glycogen or fat. The body uses muscle glycogen both aerobically or anaerobically. It uses liver glycogen for the production and release of glucose into the blood (necessary for the central nervous system).

Many distance horses can maintain their weight or meet their energy needs on all hay or forage. You can add concentrates when forage falls short of these needs. However, concentrates should not comprise more than 50% of the ration and not be fed more than 5 pounds at a time.

Glucose and insulin peak at about 2-4 hours. Insulin drives the glucose into various storage cells thus making it less available in the bloodstream for the muscles to use. It also decreases the utilization of volatile fatty acids. Therefore, current thinking is that if feeding a high sugar sweet feed to your horse, do it **at least** 4 hours preceding the start of the competitive ride. Feeding grain after the ride can help replenish muscle glycogen.

Fats

Fats yield 2.5 times more energy as an equal amount of carbohydrates. For a horse that is a hard keeper, whose energy needs cannot be met by forage and the addition of some concentrates, fat in the form of vegetable oil, soybean oil, flax seed meal, or animal fat can be added to the diet to supplement calories.

Horses generally prefer vegetable oil to animal fat. You can purchase it in 5-gallon quantities at many feed stores or discount



Photo by Soren Brath from
Pixabay.

houses. It should not comprise over 10 percent of the ration, and as a practical matter, add it at a rate of 1 to 2 cups per day. Start with about 1/4 cup at a time and slowly increase the amount. If you add too much at once, the horse will not digest it, and the result is a loose stool. In

that case, reduce the amount until the stool is normal, and then resume the gradual increase.

Rice bran is another good source of supplementary fat. It is about 85 percent digestible, and 1 pound is equivalent to about 8 ounces of corn oil.

Some commercially prepared extruded feeds are intentionally high in fat and can serve as part of the horse's diet if you want to boost the fat levels.

For performance benefits, the addition of fat to the diet should begin early (opinions range from 1 to 6 months) in the conditioning program for metabolic adaptation and continue throughout the season.

Protein

Horses use protein for energy if the amount of fiber, fat, and carbohydrates is deficient, or if there is excess protein in the diet. However, it is not an efficient form of energy for the distance horse.

More energy and water consumption are required to eliminate the excess nitrogen (as ammonia) associated with the protein. Exposure to this strong urine and ammonia build-up in stalls can cause lung irritation and other airway problems. The utilization of

protein as energy produces about six times as much heat as fats or carbohydrates.

Protein requirements increase as work increases, but the added quantity of feed required as the amount of work increases provides this additional protein requirement. Many experts say 8 to 10% protein on a dry matter basis in the diet is sufficient.

Water

Fresh, clean water must be available at all times. Several factors, feed, weather and amount of work, play a role in determining how much water is required per day.

Water content of the feed is important; hay is about 10 percent water, but fresh grass is about 60 to 70 percent. There is a strong correlation between the amount of feed consumed and the amount of water consumed. In addition, the more a horse works, the more water the horse needs. A horse needs more water on a hot, dry day than on a cooler, more humid day. Five to ten gallons per day is a common "ballpark" figure for a standard horse under "standard" conditions.

Horses generally prefer cool water in the summer and slightly heated water in the winter. Some horses refuse to drink strange water well, so it's usually a good idea to take some water from home to a competition. Various "sweeteners" such as 7-Up, honey, Kool-Aid, or molasses can be added to water to encourage a finicky horse to drink. If you put electrolytes in the water, be sure to make plain water also available.



Getting a good drink of water at the 2019 Chicken Creek CTR in Colorado. Photo by Bill Wingle.

Salt and Other Supplements

Salt

Offer salt free choice at all times. Many people prefer loose salt to blocks; it's probably not an issue for most adult horses, but foals sometimes get sore tongues licking a block. Some equine nutritionists recommend plain white salt over trace mineral salt (the red blocks) for horses in training or competition. The thought is that if the horse eats enough salt to meet its needs, it is eating too much iron in the trace mineral form. Excess iron can be toxic as well as interfere with the absorption of other minerals.

Vitamins and Minerals

Good quality feed, in adequate amounts to meet the horse's energy requirements, usually meets its vitamin and mineral needs, too. Many commercial grain concentrates have a balanced addition of vitamins and minerals.

Vitamin and mineral supplements come in many forms from loose grains to small blocks to large drums. Use free choice or added to feed based on the horse's weight.

Check with your local livestock agent or veterinarian about local problems or deficiencies. Some areas of the country are deficient in selenium; some areas have excess levels.

Ration Balancers

Ration balancers are relatively new on the equine nutrition scene. They are a nutrient-dense pelleted feed, forage based with little or no grain, designed to provide vitamins and minerals that might be missing in the rest of the diet. There are two kinds, one formulated for a grass hay/pasture diet, the other formulated for an alfalfa diet. High in protein, low in carbohydrates and with added amino acids, ration balancers are fed in small amounts.

Digestive System Support

Wheat Bran

Most of the perceived benefits of wheat bran, traditionally fed as a mash, are unfounded. It is a bulky, poorly digested source of fiber and tends to increase the amount of manure produced, but it is not a laxative. It does not clear sand from the digestive tract and is not a therapy for sand colic. While a warm, soggy bran mash supplies water, the amount of water is not enough to make a big difference.

Wheat bran is very low in calcium and high in phosphorus (a ratio of 1:12 instead of the ideal 1:1 or 1:2). Long-term feeding without balancing the diet can lead to mineral deficiencies.

Horses seem to love bran and many people find it useful to get a fussy eater to eat or to stimulate a horse to ingest supplements or medication. As with most “comfort foods,” a little now and then is not going to hurt anything.

Beet Pulp

Beet pulp is the dried form of the fibrous material left over after extracting sugar from sugar beets. It is a highly digestible fiber with relatively low crude protein content (8-10%), like good grass hay. Its digestible energy is between that of alfalfa hay and oats. Beet pulp comes in a pellet or shredded form. Some brands have added molasses.

The reasons most people feed it are:

- To encourage weight gain
- In horses with dental problems, to provide easy-to-chew fiber
- To replace or supplement poor quality hay
- In geriatric horses and convalescing horses, to provide an easily digestible forage



Beet pulp shreds. Use brands without molasses. Photo by Standlee Forage.

Distance riders have another use - to provide energy and aid hydration in the competitive horse. However, it is not a magic elixir for use only at competitions. It should be a regular part of the competitive horse's feeding program.

Fiber does two things. It encourages water intake and it absorbs and holds water as it moves through the digestive system. Forages take a few days to move through the foregut before they reach the hindgut - the significant extra reservoir of fluid and electrolytes for the horse's body to draw upon during

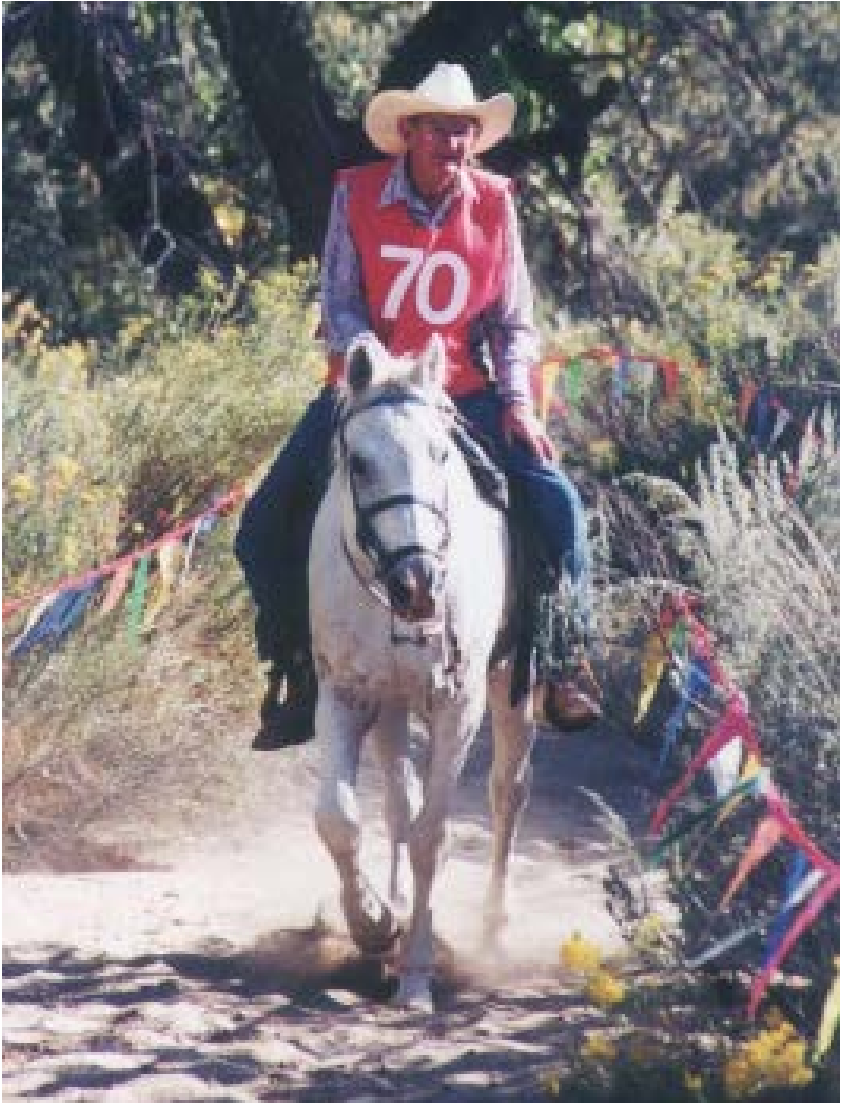
exercise to minimize dehydration. Soaked beet pulp, fed along with quality hay, provides even more fluids and electrolytes for this reservoir. In order for your horse to have this reserve for the weekend, you should work up to about 2 pounds (dry weight) of beet pulp, which you soak, per day in your feed program.

As with all feeds, read the manufacturer's label for feeding instructions and cautions. Technically, you don't have to soak beet pulp, but most people do. Soak 1 part beet pulp shreds or pellets in 2 parts of water until the water is absorbed, which is about 15 minutes to 2 hours. The warmer the water, the less time it takes; shreds absorb water faster than pellets. Typically, you would feed beet pulp within 12 hours of adding water, but it will keep longer in cool conditions. It can ferment, so if in doubt, throw it out.

Recap

Nutritional Basics for the Competitive Trail Horse

- ☐ Competitive distance horses rely on aerobic metabolism
- ☐ Forage provides energy from volatile fatty acids
- ☐ Slowly released energy from fat metabolism is important for competitive distance horses
- ☐ Supplement the diet with concentrates and fats
- ☐ Many high fat, high fiber, pelleted feeds suitable for competitive distance horses are available commercially
- ☐ Feed carbohydrates (grains)/concentrates as needed
- ☐ Supplement vitamins and minerals depending on the quality of feed
- ☐ Provide salt free choice
- ☐ Allow access to fresh, clean water at all times
- ☐ Using easily digestible soaked forages can aid hydration



Mahra Kahn, ridden and owned by Milne Parish, Region 3 member, became a Horse Hall of Fame inductee in 2000. This 7/8 Arabian mare's career spanned almost 20 years in which she won numerous awards, as well as the prestigious President's Cup, and racked up 8,440 miles in NATRC competition. Milne was the only one who rode Mahra Khan, except once when he was on crutches and his wife, Jo, rode her taking Sweepstakes at a ride. Jo related that she was just there because NATRC is a team sport and Mahra Khan had to have a partner, otherwise she would have done it on her own. Photo by Cristy Cumberworth.

FLUID and ELECTROLYTE BALANCE

"It is important to ensure that your horse is in fluid and electrolyte balance as much of the time as possible."

- Mike Lindinger, Ph.D., Dept. of Human Health and Nutritional Sciences, University of Guelph, Ontario, Canada

Fluids

Water, your horse's basic fluid, is essential for health and well-being. Beyond survival, water plays a very important role in your horse's performance. Horses lose water and electrolytes through sweat, respiration, urine and feces. When the water intake doesn't keep up with the losses, the body tissues and the blood lose water, and your horse becomes dehydrated. Dehydration is one of the competitive distance horse's biggest enemies. Loss of as little as 3-4% of body fluid can adversely affect performance.

As the horse becomes dehydrated, water is lost from the plasma portion of the blood. As the blood becomes thicker, it can't transport oxygen to the tissues as efficiently. The heart has to work harder to compensate. Without enough oxygen, muscles do not work as efficiently and become more fatigued. Next, the body shunts blood from the gastrointestinal tract to the muscles causing gut motility to slow down. Colic can follow.

Horses convert food into energy, and they use energy to move. The more they move around, or go down the trail, the more energy they use. Seventy to 80 percent of this energy conversion is waste heat that the horse must dissipate. They rid themselves of most of their heat through sweat, which like us, cools them as it evaporates. According to Dr. Susan Garlinghouse (D.V.M., MS, rider, and an American Endurance Ride Conference (AERC) control veterinarian), during a 50-mile endurance ride, an average horse can produce enough heat to melt a 150-pound block of ice and bring that water to



a boil. A horse must dissipate that heat in order to prevent “cooking” internally.

Humans sweat more water than electrolytes. Thus when dehydrated, their blood plasma contains an increase in sodium, and that triggers a thirst response. Horse sweat, however, is very similar to their blood plasma. Horses lose many more electrolytes along with the water, thus there is not a relative increase in concentration in the plasma, and there is not a trigger to drink. The horse might not be interested in drinking even though it is clinically dehydrated. You might be able to lead your horse to water but not make him drink.

Electrolytes

When salt dissolves, it dissociates into free ions. Common table salt, sodium chloride (NaCl), contains a positive (+) sodium (Na) and a negative (-) chloride (Cl) ion. Several electrolytes or ions are found in the body tissues and fluids and perform a variety of vital functions including maintaining the acid-base balance of the body as well as affecting the nervous, muscle, cardiac, vascular, digestive, and urinary systems. The important ones affecting the well-being and performance of the working horse are sodium, potassium (K), calcium (Ca), phosphorous (P), and magnesium (Mg). Electrolyte balance is crucial for proper functioning of electrical impulses needed for muscle contraction and for maintaining the proper water balance within tissues in the body.

When large amounts of electrolytes are lost, replacing these is vital to the horse's health and well-being.

Energy-dependent and independent “pumps” move ions in and out of cells as necessary to maintain proper balances. A deficiency in one causes a domino effect on the balance and resulting activity of the others. For example, a loss of potassium (+) from within cells follows a loss of sodium (+) from the fluid surrounding the cells as the body tries to fill the void and maintain the electrical balance. Then potassium is lost in the sweat, and the whole system becomes out of balance.

Some electrolytes are lost every day in urine, manure, saliva, and of course, sweat. Under normal maintenance or reasonable training conditions, the dietary intake of good quality forages, such as hay, pasture grass, etc. readily replaces most electrolytes (except regular salt). All horses need daily free choice salt supplementation.

The longer a horse exercises, the faster it goes, the less fit it is, and the hotter and more humid the weather is, the more the horse sweats. The more a horse sweats, the more electrolytes are lost in that sweat. Lost electrolytes give the salty appearance on the skin after sweat evaporates. During a competition, or anytime significant effort is expended, the sweat produced for cooling can carry enough electrolytes out of the body to cause imbalances, and dietary sources might not provide adequate replacement.



Mike Lindinger (Ph.D., professor of physiology at the University of Guelph, Ontario, Canada) advises us to ensure that our horses are in fluid and electrolyte balance as much of the time as possible.

Electrolyte supplementation to maintain this balance is often not necessary for a competitive trail ride. However, studies have shown that many distance horses experience most of their fluid and electrolyte loss during the first 20 miles of a ride. Managing your horse's fluid and electrolyte balance is crucial for his metabolic stability.

Dr. Art King (D.V.M., Fort Erie, Ontario, AERC control veterinarian and Federation Equestre Internationale (FEI) official veterinarian with a special interest in electrolytes), reminds us that the ideal electrolyte

- contains sodium, potassium, chloride, and a little calcium and magnesium as readily soluble salts in a balanced ratio to replace electrolytes lost in sweat
- is nearly pH neutral when dissolved in water at isotonic concentrations (i.e., the same concentration as they would be found in blood plasma)
- is pH buffered
- is readily absorbed following ingestion
- is palatable as a powder or concentrated solution

Several commercial electrolyte preparations are available in paste or powder formulations. Not all match the specific needs of competitive distance horses. Avoid ones that list glucose high on the list of ingredients. High sugar causes a surge in insulin that results

The Good and the Bad of Electrolyte Formulations	
	Na^+ K^+ Mg^{2+} Cl^- Ca^{2+}
	Sugar (glucose) Bicarbonate

in uptake of glucose from the blood, and hypoglycemia (low blood sugar) could result. Also avoid electrolyte formulations that contain *bicarbonate*; *the body is already conserving bicarbonate ions* as chloride ions are lost. This accumulation of bicarbonate ions is a cause of the metabolic alkalosis condition (severe dehydration) of the distance horse. Fat supplements that are beneficial during training could slow the absorption of electrolytes if given during competition.

Dr. King suggests mixing an electrolyte powder with yogurt or any pureed fruit or vegetable (applesauce, pureed carrots, pureed peas, pureed corn, etc.) that the horse likes and administering it in a concentrated form by syringe (a 60cc catheter tip syringe works well). Mixing it this way makes it more likely that the horse will swallow it. A paste of only electrolytes and water is less palatable and is more likely to run out of the horse's mouth.

Another convenient way to feed electrolytes on the trail is to mix a dose with about a cup of dry beet pulp. At the lunch stop, you could add a cup or two of water and let it soak 15 to 30 minutes, and feed it to your horse.

Many horses will drink water containing commercial electrolyte formulations mixed according to directions. However, some horses do not like the taste of the "treated" water and will not drink enough to meet their water intake needs. Always offer plain, untreated, water in addition to water containing electrolytes.

How much? It depends. It depends on the temperature, the humidity, and the condition of your horse. Your horse would need more electrolytes on a hotter ride than on a cooler ride; more in a humid area than in an arid area; more calcium in a more humid climate; an unfit horse might need more than a fit horse. Most of this relates to sweating; the more sweating, the more water and electrolytes are lost.

Balance

First, think about maintaining fluid and electrolyte balance and help your horse arrive at the ride in a well-hydrated state. Provide adequate forage for several days before the ride. This will not only encourage your horse to drink, the forage in the digestive tract will serve as a reservoir for fluid and electrolytes.

The horse will excrete extra electrolytes given more than about 8 - 12 hours before the ride, in the urine. However, if the horse needs to be encouraged to drink and re-hydrate before the ride, as would be the case if the horse did not drink well during the trailer ride, Dr.

King suggests giving 1 - 2 ounces (2 – 4 Tablespoons) of regular salt every 12 – 24 hours. Within 8 hours of the start of the ride, he recommends switching to electrolytes. As always, provide access to fresh water!

According to Dr. Lindinger, perform pre-ride electrolyte loading only to provide a balanced mixture of water and electrolytes to the G.I. tract within 2 hours of starting the ride. The idea is to provide a reservoir of water and electrolytes to replace what will be lost through sweating during the first 10 – 20 miles of the ride.

As a guideline, many riders give one electrolyte dose the night before, a dose 2 hours before the ride, a dose during the ride (lunch stop), and a dose after the ride if the horse has sweated heavily or is still sweating. One rule of thumb is to give about 2 ounces of electrolytes for every 10 miles of competition, or every 2 to 4 hours depending on your speed and climatic conditions.

Always provide ample drinking water. Never give electrolytes to an already dehydrated horse. The blood really needs its fluid. If you give electrolytes to a dehydrated horse before the horse drinks and then he does not drink, the electrolytes in the gut will pull fluid from the blood.



Offer water to your horse at every opportunity on the trail, as are these riders at the 2014 Island in the Sky CTR in Colorado. Photo by Gary Walls.

Giving electrolytes **now** will not make the horse drink **now**. Many times, a horse will drink if given a few minutes to relax or graze on a little grass. The absorption from the gut is more efficient if the

electrolytes are not too concentrated; drinking before electrolytes are given will help this. So, let the horse drink, then give electrolytes.

Never let a horse who is receiving electrolytes run out of fresh water. It might take a couple of days for things to return to a normal balance.

Electrolyte supplementation does not cause gastric ulcers, but it may irritate existing ulcers. If you think your horse might have an ulcer, make an appointment with a veterinarian to do an endoscopic examination (viewing real time video of the stomach on a color monitor from a camera attached to a flexible tube with a light inserted down the throat into the stomach).

Knowing what is normal, and what is not normal for your horse, is part of good horsemanship. Strive to ensure his electrolyte and fluid balance. Many tools are available to help you evaluate this. A healthy horse should look bright and alert, and, in the words of Dr. Jamie Kerr (D.V.M., AERC vet and former head veterinarian for the Tevis Cup), should be “eating, drinking, peeing, and pooping (EDPP).”

Imbalance

Imbalances in fluids and electrolytes manifest in your horse in many ways. Muscle fatigue, poor heart rate recoveries and decreased gut sounds might be due to reduced potassium reserves. Calcium depletion might be seen as such things as muscle tremors, elevated heart rate, or thumps (contraction of the diaphragm with each heartbeat).

Several signs of imbalances and dehydration are those that you can observe yourself:

- dark urine
- dry or mucus-coated manure
- little or no interest in drinking
- lack of appetite
- droopy ears
- dull eyes
- little interest in surroundings
- gait abnormalities
- loss of usual impulsion.

You can also detect problem indicators in the metabolic parameters taken and recorded on your scorecard:

- poor P&R recoveries
- abnormal gut sounds – either too slow or too fast

- delayed capillary refill (2–3 seconds or more)
- pale or dark mucous membranes
- delayed jugular refill (2-3 seconds or more)
- muscle tremors
- decreased anal sphincter tone

In situations that are more serious, you might see thumps, elevated rectal temperature (above 103F), and/or colic signs.

In your truck, you probably would not have to wait until the oil light lit up on the dashboard to know there might be a problem. You probably would notice oil leaking on the ground before that. Likewise, you don't need to wait until you see serious warning signs of metabolic problems. You should be aware of hints before that – P&R recoveries not quite right, gut sounds just slightly decreased, capillary refill just a little slower than usual, not quite the usual interest in food, and so forth. The clues for early recognition of potential problems are there – we just need to pay attention to them.

Recap

Fluid and Electrolyte Balance and the Competitive Trail Horse

- ☐ Keep your horse in fluid and electrolyte balance.
- ☐ Keep your horse hydrated before the competition starts.
- ☐ Electrolyte supplementation may not be necessary under normal conditions.
- ☐ Competition stress may deplete electrolyte reserves.
- ☐ Never give electrolytes to an already dehydrated horse.
- ☐ If giving electrolytes, do so after a horse has drunk water.
- ☐ Many commercial and homemade formulas are available.
- ☐ Use electrolytes wisely, when and if necessary.
- ☐ Always provide access to fresh, clean water when giving electrolytes.
- ☐ Know what is normal and not normal for your horse.



Winchester Charm, owned and ridden by Lucy Hirsch, DVM, Region 6 member and judge, became a Horse Hall of Fame inductee in 2002. This 1/2 Arabian gelding won numerous national and regional awards while covering 10,210 miles in NATRC competition. Photo by Ardell Greenwood.

TACK and EQUIPMENT

Choices in tack are endless. Different types and styles have their advantages and disadvantages. Base your decisions about what to use for you and your horse on understanding how different items of tack work. Then take what you have and go from there. The most important consideration is that the tack used fits both the horse and the rider comfortably and correctly.

Saddles

Contributed by Bonnie Peralez

Formerly with Broken Horn English Saddle Department, Region 2

Priscilla Lindsey

Horsemanship Judge, Region 6

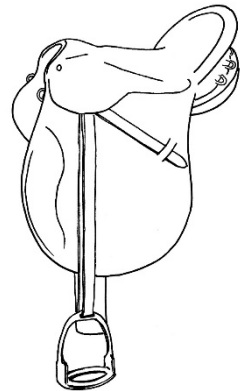
Types

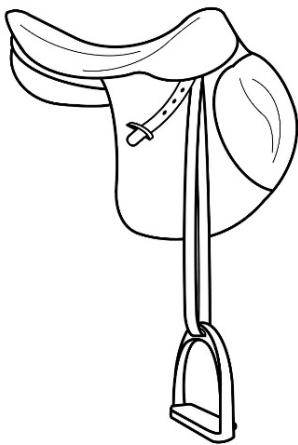
English/Dressage

English saddle styles vary in the angle and length of the flaps, the depth of the seat and the placement of the stirrup bars. The all-purpose (AP) style, also called the general-purpose (GP), is suitable for many types of riding. The stirrup bars, placed slightly forward, allow the rider to use a shorter stirrup and a slightly forward body position for a jumping or cross-country seat.

Another style that has become popular is the “very slightly dressage” or VSD. This has the flap a little straighter for less interference with the horse’s shoulder and allows the rider to sit deeper and maintain a balanced seat in all types of terrain.

The dressage style saddle has the straightest flap and deepest seat and can be very comfortable for both horse and rider. Generally, the billet (girth) straps on dressage saddles are longer to allow use of a short girth so that the buckles are not under the rider’s legs. The placement of the stirrup bars on a dressage saddle allows the rider’s leg to drop straight down with the foot directly below the hip.





Close-contact and forward-seat jumping saddles have a more forward angle of the flap and more forward stirrup bars. They are specialized for show jumping and are not as suitable for cross-country or distance riding.

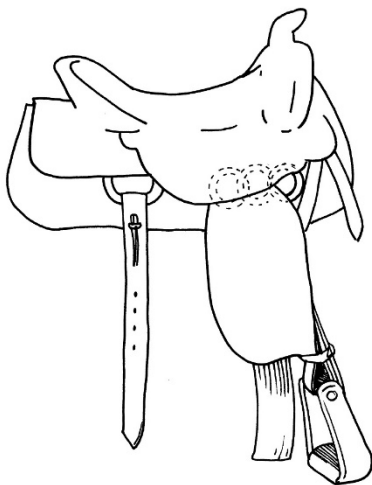
A well-balanced saddle, no matter what style, will have the deepest part of the seat mid-way between the pommel and cantle. This allows the rider's seat bones to stay in the center part of the saddle without conscious effort. A well-fitting saddle will totally clear the horse's spine at the pommel, cantle and all along the gullet. The English saddle panels should conform

to the horse's back and stuffed evenly with no lumps that might cause bruising.

Western

Western saddle design uses a tree styled with a pommel, horn and cantle. Saddles designed for roping, ranch work and specialized showing events, such as cutting and reining, are generally quite heavy and might not be the best choice for distance competition.

Western saddles designed for pleasure and trail are more suitable.

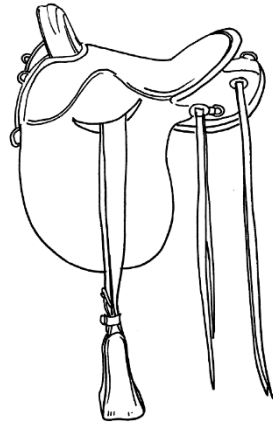


The tree of a western saddle does a good job of distributing the rider's weight over a large area. It must conform to the curves and angles of the horse's back in order to be comfortable and not cause pressure points. Some western saddles have the stirrups hung too far forward, forcing the rider into a chair seat, back against the cantle, instead of allowing a light, balanced seat with the rider's heels directly below the hips.

Trail or Endurance

These saddles can vary considerably in style and construction. They evolved because of the sport of distance riding to minimize weight. Most use a western tree with no horn and reduce the amount of material in the skirts and stirrup leathers. Some are similar to military cavalry saddles.

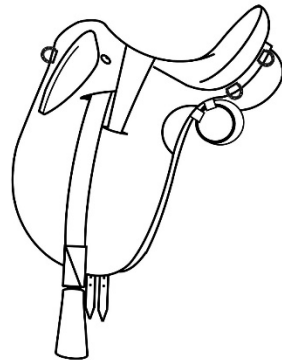
Most have the stirrups hung under the rider for good balance. Some have adjustable stirrup leather and girth positions. They usually have rounded skirts and soft seats. Many can be custom made.



Aussie

These saddles came on the scene after the Australian movie "*The Man from Snowy River*" hit the theaters. It looks somewhat like an English saddle with bucking rolls.

The original is a stock saddle. Because "cowboys" moved cattle using stock whips, they had no need for a horn. To increase security, they have built in kneepads (similar to bucking rolls for western saddles). They have swinging fenders, a top surcingle (goes over the tree) and some have an adjustable gullet tree.



Treeless

Treeless saddles and half-tree saddles have improved in recent years and sometimes solve the problem of a hard-to-fit horse. However, they tend to slip and twist, so it is essential to combine them with a well-fitted breast collar and perhaps a crupper, too. For the rider, these saddles are similar to a bareback pad and do not offer much support, so, having a good balanced seat is important.

Synthetic

Saddles that have materials other than leather for the parts covering the tree are synthetic saddles. They come in all types and styles and

are popular because of their ease of care, light weight, and reasonable prices. However, synthetic material can have a tendency to hold heat for the horse and rider.

The saddle coverings are not the only things that are synthetic. Materials used in trees include wood, steel, aluminum, fiberglass and even super lightweight carbon fiber.

Rigging

The rigging is how the cinch attaches to the tree. If the cinch is toward the middle of the saddle, it is "center fired." Moving toward the front, there are various rigging positions expressed as fractions: 5/8, 3/4, 7/8, and full. If the cinch attaches too far forward, it causes more pressure at the front of the saddle and can interfere with the shoulders. A full rigging would be just behind the base of the fork. Fortunately, not many saddles are this way. It is good if the front of the cinch is 3 to 4 inches behind the horse's elbow.

Girths/Cinches

Most girths or cinches are made of fleece, mohair, or neoprene.

Fleece is soft next to the horse, but tends to clump and become uncomfortable. A fleece cinch tends to slip and not hold the saddle well.

Mohair girths or cinches are popular because they breathe, are washable, and they don't get stiff and chafe when the horse sweats. They are available for English saddles as well as for Western.

Neoprene girths are also popular because they are easy to clean, but they hold the heat. Although some riders like that the cinch area stays wet so the cinch slips easily without galling, many have found that the heat scalds the skin on a sensitive horse.

Some riders ride with relatively loose girths/cinches to help prevent rubbing and galling. However, a loose girth or cinch may allow the saddle to slide back and forth on the hills, making use of a breast collar and crupper more important.

Stirrups

Many stirrups are now made of lighter synthetic materials and are wider and/or padded to ease the strain on the rider's foot. However, a too-wide stirrup can limit flexibility in the rider's ankle leading to discomfort in feet and knees.

There are several different brands and styles of stirrups made for distance riding for both English and Western saddles that afford greater comfort and safety for the distance rider.

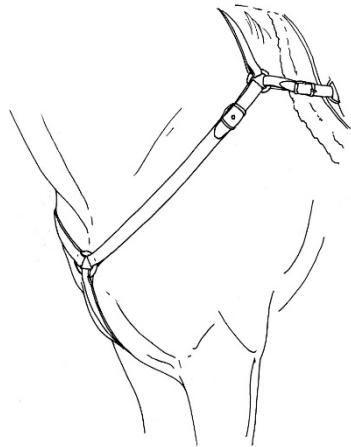
For safety, some have breakaway mechanisms in case the rider's foot catches in the stirrup in a fall. Others have baskets/cages or tapaderos that wrap around the front of the stirrup to keep the rider's foot from slipping forward and becoming hung up in a fall. You can purchase baskets or tapaderos separately and retrofit them to existing stirrups.

Breast Collars and Cruppers

Breast collars and cruppers help keep the saddle in place, especially when going up and down hills.

Breast collar fit and adjustment are critical: if too loose, it allows the saddle to slide back and forth; if too tight, it can cause rubs and soreness and even interfere with breathing.

For both Western and English saddles, the English hunt-style breastplate is by far the best choice for distance riding. Properly adjusted, the shoulder straps lie next to the groove between the horse's neck and shoulder, so they move with the shoulder rather than the shoulders pushing against them. There should be an adjustable connector strap going over the neck in front of the withers and adjustable straps going back to the saddle and girth. This type of breast collar adjusts snugly without causing rubs or soreness, and it stabilizes the saddle very well.



The western-type breast collars stabilize the saddle when roping calves and steers. They do not allow free shoulder movement, thus are not suitable for covering many miles at a fast pace.

A crupper connects the back of the saddle to the tail by an adjustable strap and soft adjustable (on some brands) loop that goes around the tail. It keeps the saddle from sliding forward and impeding the horse's shoulder movement when going downhill. To be effective, a crupper must be a fairly snug but not tight fit. Adjust it to engage when needed. A rule of thumb is that when lifted off the horse's croup, a 1-inch clearance should appear. Accustom your horse to this gradually to be sure he accepts something under his tail.

Saddle Pads

A good saddle pad is essential. Many riders like a real Navajo blanket or real wool fleece or felt. There is a strong preference for wool over synthetic combinations; wool breathes more and absorbs more moisture than synthetic/wool combinations.

Open-cell or closed-cell foam pads that absorb shock have gained much popularity. Gel pads can be a help if the saddle fit is not perfect, but they can also trap heat. Often the foam and gel pads fit inside compartments in a pad that has a wool underside that contacts the horse.

Wash saddle pads and girths in a gentle product such as Woolite or Ivory soap, never in a detergent that can "burn" the skin, and then thoroughly rinse. You can use the same shampoo to wash saddle pads as you use on your horse.

Saddle Fit

Horse

Taking the time to find a saddle that fits your horse is worth the effort.

Place the saddle (no pad) on the horse behind the shoulder blade, not over the withers. The shoulder should be able to move freely.

- Wiggle the saddle around. If it's making good contact, it will move all the skin.
- If you press down on the pommel and cantle independently, the saddle should not teeter.
- If you lay your face against the neck of the horse and look at the bars of the saddle in the front, the saddle should lay parallel to the horse's body.
- Over the loins, the tree should curve up slightly to allow for the rise and fall of the horse's back muscles as he moves.

Girth or cinch the saddle normally and examine the balance.

- If the saddle appears to sit low in front and higher in back, it is probably too wide.
- If the saddle seems to sit too high in front, it might be too narrow.
- You should be able to get two fingers between the pommel of the saddle and the highest part of your horse's withers while you are mounted. If the clearance is minimal, the saddle is too wide.

Creative padding can help make minor adjustments, but putting extra padding under the saddle to correct poor fit will never solve all the problems, especially when riding long distances over uneven terrain.

Horses with low or sway backs are prone to bridging problems (saddles resting only on the four corners with no contact with the horse's back in the center as evidenced by the sweat pattern on your horse's back), and they can sometimes be helped with special padding.

A saddle doesn't have to be fancy and expensive to do the job. If your horse is happy and you are comfortable and not struggling to keep your position, you're off to a good start.

Rider

Your saddle should have plenty of room in the seat, whether in Western or English styles. If the seat is too small, it could push your weight against the cantle, which causes excess pressure over the loins of the horse. The larger English saddles have a greater weight bearing surface area which certainly is beneficial to the horse.

If you sit in the deepest part of the seat with your feet in the stirrups, your legs should drop naturally under you with your heels in line with your shoulder and hip. Should the saddle suddenly



Rider properly seated in her saddle at the 2019 Navajo Lake CTR in New Mexico.
Photo by Bill Wingle.

disappear from under you, you would land on your feet. If you assume the two-point position (standing balanced) in the stirrups, you should not have to struggle to balance easily.

Stirrups hung too far forward will put you in a chair seat position. This makes it difficult for you to ride lightly, causes you to fall behind the action of the horse, and puts extra pressure on your horse's loins. Should the saddle suddenly disappear from under you, you would land on your rear.

Sit relaxed and observe where your knees are pointing. If the saddle rotates your thighs so that your knees are pointing too far out, it causes you to grip with the back of your calves, and the stirrup leathers will rub your legs. The saddle should allow your knees and thighs to have an even contact on the saddle with no effort.

The seat should be comfortable as you sit relaxed with a vertical pelvis. Everyone's build is different, so some seats are too high in front for some riders. A flat seat on a Western saddle is generally best to allow the rider to find a good, balanced position. A deep-seated English saddle should have a medium-large flat area in the center of the seat for the same reason.

Saddle Influence on Rider Position

Contributed by Priscilla Lindsey

Horsemanship Judge, Region 6; Retired Centered Riding Instructor

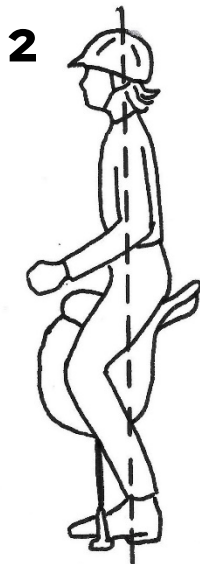
Riders can achieve well-balanced positions in various styles of saddles. However, there will be slight differences in body position due to the design of the saddle. A well-designed and properly fitted saddle (fitting both the horse and the rider) will help the rider maintain a balanced seat, no matter what the riding style. The following diagrams illustrate well-balanced positions of the riders with the horse at a standstill or at a walk. The positions will change, of course, with the faster gaits. Please refer to the sketches on the following page when reading each sketch explanation.

Sketch 1 shows a good position in a western or endurance-type saddle built on a western-type tree. Good points of the saddle would be a level seat and stirrups hung in a position that allows the rider to post easily or ride in two-point position (with weight on the feet).

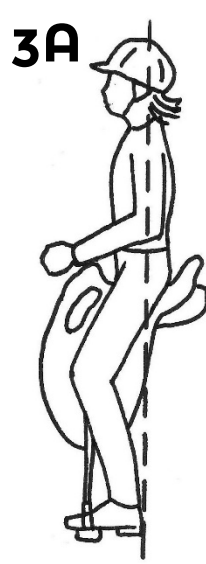
Sketch 2 is a good position in an all-purpose or eventing saddle, designed to be ridden with a shorter stirrup for more angles in the joints. This allows for easy posting, two-point, and shock-absorbing action over jumps. A slightly longer stirrup can be used for trail riding than is used for jumping.



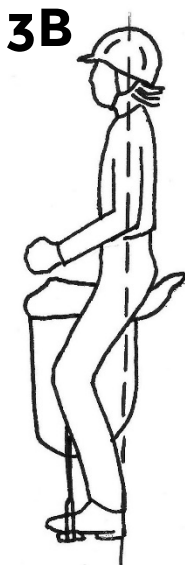
Western or
endurance



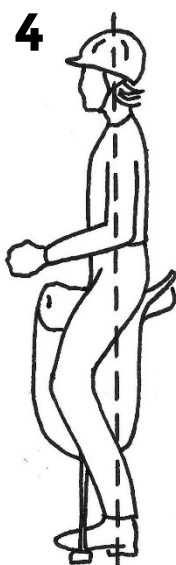
All-purpose
or eventing



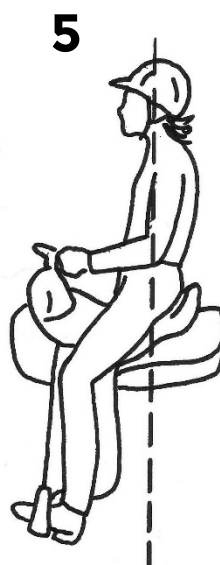
Aussie



Saddle seat
or plantation



Dressage



Chair

Sketches 3A and 3B are essentially the same position in different saddles. Flat or saddle-seat saddles, plantation saddles and Australian saddles are very similar in the way the rider is positioned. Stirrups are set more forward. These styles work well for gaited horses where the rider does not post. The rider's leg should still be far enough back to give support over rough terrain.

Sketch 4 is the classic seat of the dressage saddle. The deeper seat keeps the rider secure and balanced. Again, it is important that the saddle fits the rider and the horse properly.

Position all saddles on the horse so as not to interfere with shoulder action. Ideally, the deepest part of the saddle seat is midway between pommel and cantle, and the stirrup bars are placed so that the stirrup leathers will hang vertically when the rider is in a well-balanced position.

Sketch 5 shows what can happen to the rider's position when the saddle forces him into a "chair seat." The legs swing forward, giving little support, and the shoulders tend to slump.

In evaluating the rider position at faster gaits, ascents and descents, judges look at a "window" of acceptable position. Trying to maintain a "posed" position creates a problem of stiffness. It is more important that the rider and the horse be flowing as one and the rider not interfering with the horse, rather than the rider being in a particular position. Judging comments on the rider's scorecard help riders understand the concept of balance and lightness while following the horse's movements.

Bridles and Bits

*Contributed by Priscilla Lindsey
Horsemanship Judge, Region 6*

A bridle is a headstall with a bit and reins attached. Choices in bridles and bits are endless. Horses and riders have their own preferences. Understanding the action of various bits can help prevent training and handling mistakes.

Communication through the bit, learned by schooling and experience, determines control, rather than the use of more and more severe bits.

Although we can list the technical features for the severity of any type of bit, the fact is that a bit is only as mild or severe as the hands that use it. The mildest bit in the hands of an uneducated, inexperienced, or impatient rider can cause serious damage to the horse's mouth. A high port curb bit in soft hands can develop beautiful "finish" to a horse.

If you have a control problem with your horse, a bigger, harsher bit is not going to fix it. Training is the key. Communication through the bit, learned by schooling and experience, determines control. If you start having problems communicating and controlling your once responsive horse, it's good to start troubleshooting by having the teeth examined. Sometimes wolf teeth (usually in males, just in front of the molars) or other teeth interfere with the bit.

Bits can be made of aluminum, steel, iron, copper, plastic or rubber. Manufacturers seldom use aluminum for mouthpieces; it tends to make the mouth dry and horses don't like it very well. Copper seems to stimulate saliva production (indicates the tongue is working and the jaw is relaxed) and is often incorporated into part of the mouthpiece. Modern sweet iron is actually a 1018 or cold-milled-finish steel. It is porous, will rust, and some horses like the taste. Stainless steel is a good choice, as it has no taste at all (that's why it makes good eating utensils).

Some horses just like the action of one bit better than another. Some horses like the taste of copper, some don't. It's worth getting some knowledgeable advice from an expert to help you determine a solution that works for you and your horse.

Many riders use one-piece reins that have snaps on both ends, similar to the western roping rein. The snaps come in handy when you have to dismount and open a gate or trot with the horse in-hand for the veterinary judge. However, the bouncing of metal-on-metal can be irritating to the horse. Wrapping the bit ring with a cushioning material can help.



Bridled horse at the 2020 7IL Ranch CTR in Texas. Photo by Richard Rosinski.

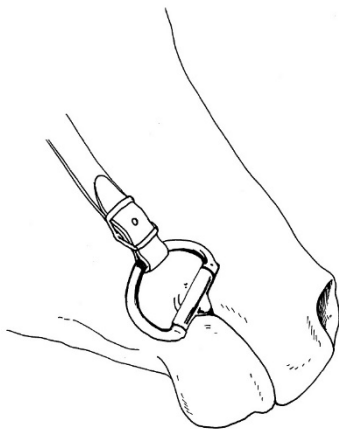
Snaffle Bits

Snaffle bits work by direct action of the reins attached to rings on the mouthpiece of the bit; there is *no leverage* action. One pound of pull on the reins equals one pound of pressure in the mouth.

Snaffles are good for teaching lateral control and flexion and therefore, many riders use them to start young horses. They also work well for an older horse that needs a refresher course. Many riders feel that a snaffle is all you need for distance riding.

The rings can be fixed, usually in the shape of a "D" or eggbutt, or loose, usually in the shape of an "O". With fixed rings, when you pull on the direct rein, you also pull on the opposite side of the face, which helps the horse learn to respond. With loose rings, there is more play, which many horses like, but loose rings focus more pressure on a smaller area.

Full cheek snaffles have a piece extending up and down from the ring that usually attaches to the headstall by keepers. The cheek piece keeps the mouthpiece from pulling through the mouth but also restricts the play, which some horses like. Some riders use a curb strap with a snaffle bit below the reins to keep it from pulling through the mouth.



Mouthpieces can have one or two joints or none. They can be a straight bar or slightly curved (mullen mouthpiece). The straight bar and mullen mouthpieces act on the tongue and corners of the lips. The straight bar offers no tongue relief; the mullen allows more room for the horse's tongue. Jointed mouthpieces act more on the lips and bars (toothless area between the incisors and molars). Use by putting pressure on one rein at a time.

Pulling both reins at the same time on a single-jointed mouthpiece results in the two parts squeezing the bars between them like a nutcracker, which can be very painful for the horse. This might be less severe with a double-jointed mouthpiece.

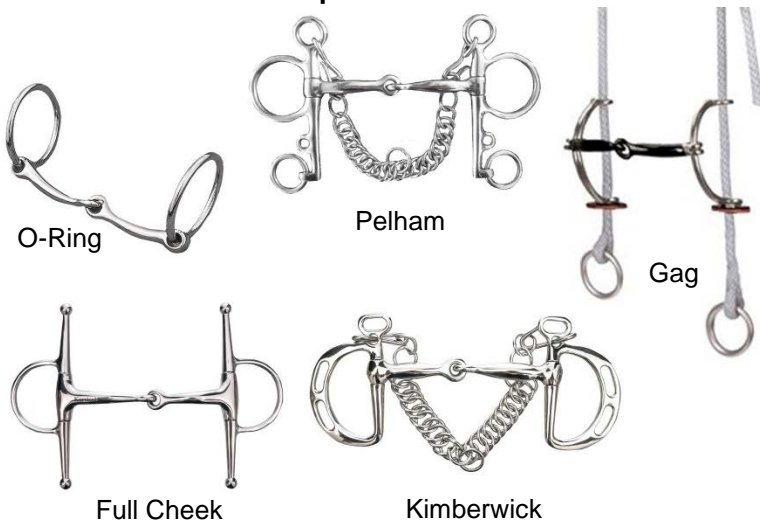
A flat link in the middle joins the double-jointed mouthpiece. Many Arabians like this type of bit, known as a French snaffle, because they have a low palette and it fits their mouth more

comfortably. A similar bit is the Dr. Bristol, which has a flat link in the center angled to press on the tongue, making it more severe than if the link lies flat on the tongue (like the French snaffle). As with all bits, a double-jointed mouthpiece in harsh hands can be quite severe.

In general, smaller diameter mouthpieces are more severe than larger ones; less surface area concentrates pressure. Twisted bits are more severe than smooth, but tightly twisted ones are less severe than loosely twisted ones because they distribute the contact pressure over more points.

On a gag snaffle, the reins and headstall are one unit; the headstall goes through rings and then becomes the reins. Pulling the reins moves the bit up in the mouth putting pressure on the poll and lowering the head. Gag snaffles thus are useful for speed work that requires a workable head position or for a horse that tends to run off. Control the horse by pulling on one rein at a time.

Sample Snaffle Bits



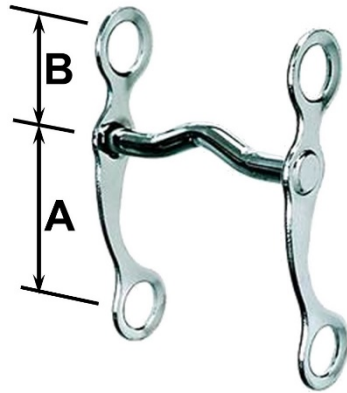
A Pelham is a hybrid between a snaffle and a curb bit with rein attachments for either direct pull or leverage. A kimberwick (also kimberwicke or kimblewick) is a type of Pelham. They can have jointed, mullen, or ported mouthpieces and use a curb chain. The mouthpiece attaches to a swinging D ring having two slots along the outer edge for reins. The reins can be attached through the open part of the D and used as a snaffle (direct pressure); through the top slot and used as a snaffle with more lip pressure; or through the bottom

slot which exerts leverage on the curb chain. Riders can use one set of reins or two sets similar to a double bridle (not very effective). It is important that the curb chain lies flat in the chin groove. A twisted chain can cause pain and a rub.

Curb Bits

Curb bits have shanks and work by the shanks putting leverage on a curb strap or chain under the chin. Loose shanked bits, which allow the shank to swivel at the mouthpiece, are useful for giving the horse a lighter cue. Solid shank bits have the mouthpiece fixed to the shanks.

The ratio of the distance of the shank from the rein attachment to the mouthpiece (A) to the distance from the mouthpiece to the bridle cheek piece attachment (B) determines the severity potential. The larger the ratio, the more the leverage. A ratio of 3:1 is severe.



A ratio of A:B of 3:1 or greater is very severe leverage.

Several other design aspects affect severity. Straighter shanks have more leverage than ones curved back toward the horse. High ports (curves in the mouthpiece) put more leverage on the hard palate in the mouth. Higher, wider ports allow more room for the tongue. Grazing bits have relatively short, curved back shanks that make it easy for the horse to eat.

The tightness of the curb strap or chain determines another part of the severity. As the reins tighten, the curb strap engages, putting the jaw in a vice-like action between the bit and the strap. Adjust the curb strap for two fingers to fit between the curb and chin or so that it tightens when the bit shanks have moved in a 45-degree arc.

Tom Thumb bits, also called cowboy snaffles, are not really snaffles because they have shanks that exert leverage even though they have a broken mouthpiece. Many people use them to transition from a ringed snaffle to a regular curb bit. Used forcibly, they can have a tremendous nutcracker effect. Some who use a Tom Thumb bit eventually complain that their horses are head-tossers. Fixing together the bottoms of the shanks with a stiff bar ("hobbling") can diminish the extreme squeezing effect.

General

Whatever bit you use, fit is important. If the curb chain is too loose, you will lack control; if it is too tight or twisted, the horse will throw its head or end up with a bad rub under its chin. A bit that is too low will bang the horse's teeth. A bit that is too small will pinch the corners of the horse's mouth.

A horse trained properly in a curb bit carries its head in a near vertical position, flexed at the poll. Some distance riders prefer to use a snaffle bit so the horse will stretch out its nose to breathe easier and be able to use its head better for balance. If you need a curb for better control early in the ride, when your horse is feeling exuberant, you can carry a milder bit with you and switch to it after your horse settles down.

Bosals, Hackamores, and Bit-less Bridles

Several styles of bit-less bridles are popular for distance riding, including the traditional hackamore with bosal, mechanical hackamores, side-pulls and other bit-less bridle designs. Many riders prefer to use a bridle with no bit because it is easier for the horse to eat and drink on the trail and at rest stops.

A bosal is a heavy, braided leather noseband that works by pressure on the nose as well as the lower jawbones. Properly fitted, the nosepiece lies about 2 inches above the end of the nasal cartilage, the sides slope down, and the heel knot lies in the curb groove. The wraps of the mecate (that forms the reins) just above the heel knot adjusts the fit. The fit must be loose enough to allow the horse to eat and drink easily yet tight enough to be effective when the reins lift the heel knot. Properly trained in a bosal, the horse will work on a loose rein with very light contact.

Mechanical hackamores have shanks and work by leverage like curb bits. They come in a variety of shapes and sizes, from the English jumping type and the popular "S" hackamore to ones

Sample Bit-less Devices



made with bicycle chains wrapped in rubber for nosepieces. The best way to find out which of these will work for your horse is simply to try them out. Fitting the mechanical hackamore is similar to a curb bit, with the curb chain tightening when the shanks have moved no more than 45 degrees.

The newer bit-less designs, such as the Dr. Cook's Bitless Bridle, work by a system of a continuous rein that goes over the horse's poll and crosses under the jaw, sliding through rings so that when the reins are pulled, there is a gentle tightening on the horse's poll and under the jaw.

Many horses go better without a bit, especially if they have any unusual dental problems, were ridden in harsh bits, or the rider was insensitive (heavy-handed). Some horses prefer to hold a bit in their mouth. It is best to experiment and see which your horse seems to prefer. The important thing to remember is, whatever the type of bridle or bit used, the horse should be trained and responsive to it.

Other Tack

Tie-downs and Martingales

Pam Hess, D.V.M., veterinary judge and competitor, cautions against the use of tie-downs on trail horses. There have been several cases of horses drowning because they could not get their heads up in water. It is extremely hazardous to try to help a drowning horse while he is thrashing; the rescuer could die, too.

The best thing you can do for the safety of your horse, yourself, and others is to not use these devices

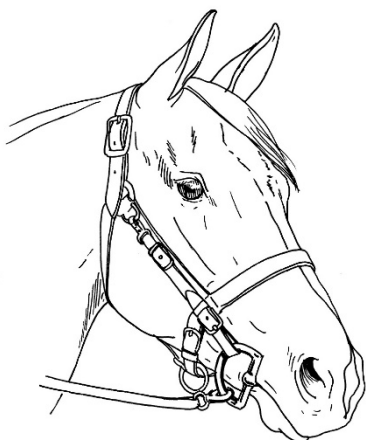
Her first suggestion is not to use a tie-down on the trail. If you must, always remove it around water. Be sure it has a quick-release or panic snap in case of a mishap. Make a connection in the tie-down with a light piece of string that will break under excess tension. Run the tie-down through a ring in the breast collar rather than letting it hang freely between the girth and the noseband so the horse doesn't get a foot over it when it lowers its head.

If you must use a tie-down, be sure to adjust it so the horse can freely extend its head going up and down hills.

Never use running martingales without rein stops. The martingale rings can catch on the reins where they attach to the bit potentially creating a frantic horse and a resulting wreck.

Halters

You should have a halter on the trail to use to tie the horse at rest stops. Many riders use a halter-bridle combination, which serves as a bridle with the bit attached, and a halter with the bit removed. The



bit attaches to the headstall with cheek piece snaps, or a simple headstall attaches to a halter near the poll strap. These come in a variety of materials such as leather, nylon, biothane, Zilco, and neoprene. The reins usually are easily removable and serve as a lead rope.

Other riders simply leave the halter on under the bridle. Some carry a lightweight rope halter in their cante or saddlebags, or tie it onto a D-ring. Riders, whose reins don't easily detach from the bit, also carry a lead rope.

Synthetic Materials

Nylon tack is lightweight, unbreakable, easy to clean, and stands up well to bad weather. Nylon reins don't get as slippery as leather reins in wet weather. One problem with nylon tack is that it doesn't breathe like leather so it holds more sweat on the horse's skin. It also tends to stiffen and chafe more. Some riders overcome this by padding the tack with artificial sheepskin. Sheepskin covers are available for nosebands, cinches, girths, breast collars, stirrup leathers, cruppers, and other equipment. Biothane and Zilco tack have become very popular. Both are long lasting, easy to clean, don't chafe the sweating horse, don't crack in the cold, and come in a variety of colors.

Additional Gear

On the trail, riders carry extra gear in cante bags, pommel bags, and fanny packs or tie the gear to their saddle's D-rings. Fly boots, fly masks and fly rump rugs are also okay to use.

Many riders carry their maps in flat, clear plastic, weatherproof bags that clip or tie to their saddle.

Being able to help the horse cool while on the trail or resting is important. All sorts of water bottle attachments are available for both



Open rider at the 2020 7IL Ranch CTR in Texas carrying a sponge, pommel bag, water bottle holders and map (on her near side).

Photo by Richard Rosinski.

human drinking and wetting the horse. Many riders cut the side out of a bleach bottle to use for a water scoop. This can be used to cool the horse or, in a pinch, for the horse to drink out of. Some clip sponges on a string onto a pommel D-ring so they can toss the sponge into water at crossings, without losing it, and repeatedly sponge the horse.

Riders also carry some sort of fan to cool the horse while resting at P&R stops. These range from collapsible fans, to

plastic lids with strings attached for tying to the saddle, to the map bag.

No matter how you carry your gear, secure it so it doesn't flap and annoy your horse or someone else's. Equally distribute and balance all gear side-to-side so it doesn't sore the horse.

Blankets and Sheets

Contributed by Judi Tobias

Past Horsemanship Judge, Region 3

A blanket or sheet can make a big difference in your horse's comfort level at the end of a ride or overnight. Think about how easily you can get chilled after a heavy workout. Although your horse might not wear a blanket overnight at home, when tied to the trailer overnight

during a ride competition, your horse cannot move about as freely as when at home. This is particularly important if the weather is cold or if it rains. A blanket helps keep the chills away as well as keeping your horse cleaner if s/he lies down. Sweat sheets and coolers help the horse cool down more comfortably.

Many riders use layers for their horses just as we do for ourselves; a light sheet, then a warmer blanket on top of the sheet if it is particularly cold. After a while, check under the blanket (feel with your hand) to see if the horse is too hot and sweating. If so, remove a layer.

Nylon and cotton sheets are not good for rain protection; they get wet and keep the horse wet. Waterproof blankets or rugs are good if the horse has to stand in the rain, snow, or wind. Gore-tex-type blankets work well over polar fleece sheets, but Gore-tex directly on the horse leaks just like a wet tent does if you touch it.

Blanket straps should be adjusted snugly so the horse doesn't get a foot caught in one. Blankets can also shift overnight as the horse gets up and down, so it's important that you start with a blanket that fits your horse well.

With the judge's permission, you may put your horse in the trailer during a rainstorm in camp. Some horses don't like the sound of heavy rain on the roof and are more comfortable outside.

If you do not have a waterproof blanket (or in case you accidentally left it at home) carry an inexpensive (less than \$10) vinyl rectangular tablecloth or shower curtain along with clothespins in your trailer. In a pinch, you can clip the tablecloth to your horse's blanket.

Rump Rugs

A rump rug is just that - a miniature blanket to go over the rump to keep the haunch muscles from cooling too fast and cramping. Tie the rug behind the saddle and unroll it over the rump in cold and/or wet weather. They are especially helpful at P&R stops.

A Reminder

Don't wait for a competition to try out new tack; it could make you or your horse miserable. Good quality tack is not cheap, but if it works well for you and your horse, it is a better investment than buying the wrong thing.



Brown R Dawud (a.k.a. Woody), owned and ridden by Judy Wise Mason, Region 3 member, became a Horse Hall of Fame inductee in 2004. This Arabian gelding won numerous national and regional awards while covering 6,490 miles in NATRC competition. Photo by Cristv Cumberworth.

HELMETS and THEIR ACCESSORIES

*Contributed by Alice Perryman
Competitor, Region 4*

Helmets

Proper helmets for horseback riding are designed to protect the head from injury by spreading the impact over a wider surface and absorbing the force into the compressible helmet interior.

Standards

Originally formed in 1898 to evaluate materials used in building railroads, ATSM, known as the American Society for Testing and Materials, is an international standards non-profit organization that develops and publishes voluntary consensus standards for a wide range of materials and products (over 12,000). Different standards are used for different sports.

SEI, Safety Equipment Institute, tests those standards and ensures that helmets are manufactured to standards that meet or exceed those of ASTM.

ASTM/SEI certified helmets are tested to see that they evenly distribute a shock wave from a sharp blow (think fall from a horse), that they resist penetration of a sharp object (think horse's hoof), that the straps are effective in keeping the helmet on in a fall, and that the visor is flexible enough to prevent a nasal fracture. Helmets are tested again after being frozen, heated, and submerged in water.

ASTM/SEI helmets have the date of manufacture and the SEI seal under the headliner. In general, helmets should be replaced every 5 years; materials degrade over time. In particular, helmets



Photo by Bev Roberts.

should be replaced after an impact, even if there is no obvious damage. The protective core could be compromised and no longer effective. An impact can be as severe as a rotational fall with a horse or forgetting your helmet on top of your car and having it fall onto the driveway as you accelerate away.

The Snell Memorial Foundation (SMF) also tests and certifies equestrian helmets. Founded in 1957, its first standards were issued for auto racing. Subsequently, specific helmet standards based on performance for other sports have been issued, such as a higher drop onto a flat surface and crush resistance.

Fit

A helmet must fit properly to provide effective protection. As a guide, start by measuring your head with a measuring tape. Have your hair styled as you ride, which we recommend is not tucked up into the helmet as that can shift while riding. Measure the widest part around, typically the rounded back of the head, just above the ears, and about an inch above the eyebrows. Take note of both the inches and the centimeters, as different brands can convert to riding helmet size through either form of measurement.

Look at the sizing guide for the brand of helmet you want to try. Then try the helmet on your head. Different brands fit and feel differently. The helmet should fit evenly around your head and snugly enough that it doesn't shift out of position if you shake your head. With the helmet strap unclipped, lean your head to the left as if to touch your ear to your collarbone, and then swiftly try the same to the right, and repeat this wide range of motion several times. Then nod your head up and down as vigorously as a sitting trot would ask, and shake your head back and forth as if someone asked if you want to trade your NATRC weekend for anything else in the world. *Note: the helmet should not move during these checks for proper fit.*

When examining the fit of the helmet in a mirror, the visor should be just above and parallel to your eyebrows. The chinstrap should just touch the skin, not pinching it, and should not pinch the ears. Different styles of helmets will be lower or higher on the back of your head; find one that makes you feel supported and enclosed. The helmet should fit evenly snugly all around your head - no gaps on the side or pinching on your forehead, as that is a sign of uneven pressure, which will be detrimental to comfort and safety on the trail. Use the supplied padding strip to make slight corrections in the fit.

Take care of your helmet by being sure it is dry, or can air-dry, before you put it away. Keep the liner clean; most are removable and

have instructions for washing. Don't store it in extreme hot or cold conditions. This is the only head you have. Protect it and don't risk your brain on an abused or out of date helmet.

Helmet Accessories

Protect the only head you have. Don't risk your brain by not wearing a helmet or by wearing an abused or out-of-date one.

If you can think of it - it's out there. Most accessories are practical. Some enable you to express your individuality with psychedelic colors and wild designs.

The most common accessories seen are aftermarket partial brims or visors, full brims, and helmet covers with brims to protect your eyes, face and neck (full brim) from the sun and rain. There are full covers, without brims, to keep the rain from entering the air vents. Some riders make their own brims out of straw cowboy hats or have them custom made.

Other accessories include such items as strap on headlamps, video camera mounts, under helmet headbands, cold weather liners, helmet covers with fleece extending down and around the neck for cold weather, liners for hot weather to wick away sweat, and bug nets.

Recap

Tack and Equipment

- ☐ Wear and care for your helmet
- ☐ Use what is comfortable for you and your horse
- ☐ Use what works for you
- ☐ Make sure what every you use fits properly
- ☐ Adjust for comfort and safety
- ☐ Keep clean and well maintained
- ☐ Tie down carried items so they do not flop around



Chargers Rampage, owned and ridden by Lisa Brooks, Region 5 member, became a Horse Hall of Fame inductee in 2010. This Missouri Fox Trotter gelding won the President's Cup three years in a row (1998-2000), 16 National Championships, and numerous national and regional awards while covering 11,600 miles in NATRC competition during his 16-year career. He completed 198 rides in 18 different states and Canada, placing 3rd or better in 134 of them while accumulating 875 Horse Hall of Fame points (minimum 400 points required). Photo by Ardell Greenwood.

Getting to the Ride and Setting Up

3

TRAILER SAFETY

Before you can safely pull a trailer, you must be sure your towing vehicle is safe. The towing vehicle must be adequate to haul the combined weight of the trailer and its contents (horses, hay, tack, water, feed, supplies, etc.).

If buying a new truck, consider buying one with a factory tow package because

Safety first! Routinely maintain your truck and horse trailer.

engineers design the components to handle the extra weight of a towed load. This results in a beefed-up engine, transmission, brakes, frame, and electrical and cooling systems.

To determine what your truck's towing capacity limit is, find out what the **gross combination weight rating (GCWR)** is from your owner's manual or the manufacturer. This rating is the sum of the maximum *loaded* weight (truck curb weight, driver and passenger weight and allowable payload) of the tow vehicle and its attached *loaded* trailer.



No towing capacity here on the truck body. This shows the load capacity for the vehicle itself in the Gross Vehicle Weight Rating (GVWR) and the Axle Ratings (GAWR) at certain tire specifications.

Photo by Bev Roberts.

Refer to Transmission Temperature Gauge in the Instrument Cluster chapter for transmission fluid temperature information.

F-250 Regular Cab Pickup			
Engine	Rear axle ratio	Maximum GCWR - kg (lbs.)	Maximum trailer weight - kg (lbs.)
4x2 with manual transmission			
5.4L	3.73	6123 (13500)	3583 (7900)
5.4L	4.10	6804 (15000)	4264 (9400)
6.8L	3.73	7484 (16500)	4899 (10800)
6.8L	4.30	9072 (20000)	5670 (12500)
(without fifth wheel)			
6.8L (with fifth wheel)	4.30	9072 (20000)	6486 (14300)
4x2 with automatic transmission			
5.4L	3.73	6123 (13500)	3629 (8000)
5.4L	4.10	6804 (15000)	4309 (9500)
6.8L	3.73	7711 (17000)	5171 (11400)
6.8L	4.30	9072 (20000)	5670 (12500)
(without fifth wheel)			
6.8L (with fifth wheel)	4.30	9072 (20000)	6532 (14400)

Here it is in the owner's manual (for a Ford F-250) for various engine sizes and rear axle ratios; and, below is the manual's discussion on how to calculate the load your vehicle can tow.

Depending upon the load, people may raise the center of gravity of the vehicle.

Calculating the load your vehicle can carry/tow

1. Use the appropriate maximum GCWR chart (in the *Trailer Towing* section in this chapter) for your type of engine and rear axle ratio.
2. Weigh your vehicle without cargo. To obtain correct weights, take your vehicle to a shipping company or an inspection station for trucks.
3. Subtract your loaded weight from the maximum GCWR in the chart. This is the maximum trailer weight your vehicle can tow. It must be below the maximum trailer weight shown in the chart.

TRAILER TOWING

Your vehicle may tow a Conventional/Class IV trailer or fifth wheel trailer provided the maximum trailer weight is less than or equal to the maximum trailer weight listed for your engine and rear axle ratio on the following charts.

2nd unit bodies are not included in maximum trailer weight ratings. The

Tires likewise must be adequate for the load. Manufacturers mark every tire with its load rating, the maximum carrying capacity at the recommended inflation, on the sidewall.

For trailer tires, the load ranges from the lightest, “B”, to the heaviest, “E.” A tire rated at “C” can carry 1,820 pounds. Double-axle trailers require reducing the max load by 12%. Four “C” tires, then, limit the loaded trailer weight to 6,406 lbs. (7,280-874), 874 being 12% of 7280. If the COLD tire pressure falls below the recommended amount, the tire’s load carrying capacity also reduces. That is why manufacturers remind us to check our cold tire pressure regularly before every trip. Note: tire pressure will increase with tire temperature.

The rubber in tires breaks down with time, and a tire’s life expectancy is usually 3-5 years. The manufacturing date of a tire is on every tire next to the rim. Note: this number usually only appears on one side of the tire. It will be part of an eight-digit number; the last four digits are the week and the year.



According to this number, the manufacturer produced this tire in the 50th week of 2007.

Trailer tires have heavier, strengthened sidewalls than light truck tires in order to handle the load when rounding corners. “ST” or “Trailer Use Only” designate that tires are trailer tires.

Tires can be either bias ply (crisscrossing of poly cords between the treads) or radial (steel wire under the tread with ply at right angles on the tire beads). Radial tires have stiffer sidewalls and offer better stability. For safest control of your trailer, do not mix the two tire types on wheels because of the difference in their behavior.

Once a year your trailer needs regular maintenance. Have a qualified person remove, clean, and repack the wheel bearings; check the lights and wiring; check and adjust the brakes if necessary; check wood floors for rotten boards and replace if necessary; check the tires for uneven wear and proper inflation; and check the breakaway braking system if you have one. Additional things to be included are checking the trailer body for water leaks, rust and corrosion, inspecting the axles, lubricating the locks and hinges, and greasing where the ball rests in the hitch coupler.

THE TRIP

The best road trip is an uneventful one. Adhering to your towing vehicle's service schedule helps assure all systems are thumbs up!

Before

Before each trip, check the towing vehicle's cooling system (fluid, hoses, and clamps), fan belt(s), battery, other fluid levels, wipers, lights, tire pressure and wear, brakes, trailer hitch, and ball (greased?). Repair, replace, lube or top off as needed.

Check your trailer's brake adjustment, lights and turn signals, tightness of the wheel lug nuts, tire pressure (including the spare), tire wear, breakaway braking system battery, attachments, hitch coupler, and safety chains.

It's a good idea to carry a tool kit with such things as a hammer, duct tape, tire pressure gauge, electrical tape, screwdrivers, wrenches, vise grips, and a fire extinguisher. Also carry fuses, a few assorted wire nuts and 1-2' lengths of electrical wire. You may also want to carry a tire inflation pump that plugs into your truck's 12v outlet and triangular reflectors you can place on the highway to warn drivers around your parked rig at the roadside. Most people carry a cell phone.



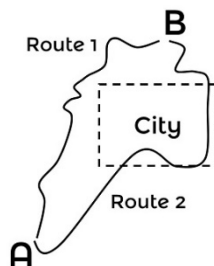
Prepare for emergencies. Blankets and first aid kit and supplies should be easily accessible. Some basic horse first-aid supplies include leg wraps (disposable diapers work well), vet wrap, betadine scrub, gauze sponges, non-sticking pads (such as Telfa pads), duct tape, electrical tape, adhesive tape, a small bucket for water, soft ropes, towels, electrolytes, bute (phenylbutazone) paste, an injectable antibiotic, a topical wound spray, banamine and supplies to administer the emergency medications. You also need to think about how to keep your horse quiet, comfortable, and safe until help can arrive.

Be sure to find out the requirements for necessary paperwork. Many out-of-state rides require health certificates and a Coggins (EIA) test. Every state has specific guidelines for transporting horses,

and you will want to make sure that you have all the proper documentation required not only for the ride itself but also for the states(s) you will be traveling through.

Plan your route. A few items to consider:

- Select the fastest route, if you have a choice. Things like curvy two-lane roads, stop signs, traffic lights, lack of places to pass, and reduced speed limits in small towns will slow you down making your trip longer time-wise even though the mileage is shorter. On the curvy, two-lane route, your horse also has to work harder because of the many transitions in speed and direction.
- Select the safest route. Especially in populated areas, four lane highways are generally safer than two-lane ones because drivers anxious to pass slower moving vehicles on two-lane roads take more risks, increasing the chances of head-on collisions. You are also more at risk of drivers pulling out in front of you from crossroads.
- Select by-pass loops to avoid congestion.



During

A few driving tips.

- Accelerate, decelerate slowly, and take curves slowly. Not only will you save on fuel, but your horse will also thank you.
- At every stop, check on your horse, do a walk around, check tires and your hitch connection.
- Select rest, fuel, restaurant and shopping stops that are easy to enter and leave, have plenty of vertical clearance, and are preferably on the same side of the road you are on (so you do not have to turn across traffic).

After

After each trip, pull out and wash the rubber floor mats, thoroughly hose off the floor boards, and clean the outside of your trailer. Replace the mats after the floor boards have dried.

Horse Comfort

Condition your horse for long trailer rides just as conditioning for competition. Although the schedule won't be the same, the concept should be the same. Take your horse on short trips before you tackle

a long trip. It takes considerable effort to ride in a trailer all day, even as much as if your horse does a day's trail ride.

Many people prefer to bed their trailers with shavings when hauling horses long distances. Shavings encourage a horse to urinate as well as to protect the floorboards by absorbing the urine. Many horses seem to back out down a ramp better if the shavings have been swept back from the gap between the floor and the ramp.

The length of time you can leave a horse in the trailer while traveling depends on a number of factors such as how rough the road is, the outside temperature, and how much bracing room the horse has. If the road is rough or winding, the horse will probably get more tired than if the road were straight and smooth. If the temperature is hot, open vents and windows for good airflow to help cool the horse. If you stop for more than a few minutes, park in the shade if possible, and open the side doors to improve ventilation; while you're enjoying lunch in an air-conditioned restaurant, your horse could be cooking in the trailer. If the weather is cold, it may be better to have the vents open and the horse blanketed than to close the vents and have moisture build up inside, which leads to respiratory problems.

A horse can expend as much effort to ride in a trailer all day as it does on a day's trail ride.

It's very important to know your horse. Some horses do better if unloaded every 4 hours to stretch, walk around, eat a bit, and have a drink of water. Other horses do quite well staying in the trailer for 12 hours as long as there are occasional rest stops. It's often more hazardous to unload the horse in a high-traffic environment than to leave him in the trailer and head for a more horse-friendly location.

It's nice to have hay available to eat, but not all horses will eat in the trailer. Many horses do not drink well in route, either. If you know your horse is not a good drinker while traveling, do not give him a lot of hay and thus risk an intestinal impaction. Soaked beet pulp would give the horse not only forage to eat but also some water. Dehydration is a major enemy of the horse during competition, so do what you can to minimize dehydration on the way to the ride.

Most horse folks tie the horse in the trailer, but some do not. If your horse puts its head on the other side of a divider or keeps trying to turn around, it's probably better to tie. If your horse is alone in the trailer and hauls quietly, it's probably all right to leave your horse untied. Because horses clean dust and debris from the upper respiratory tract by putting their heads down, problems can develop on extended hauls if they never have a chance to lower their heads.

You can use a quick release or panic snap on the trailer tie. Most of the time, the quick release is at the end that connects to the trailer. However, if the tie is made of a stretchy material (“bungee tie”), attach the snap to the horse’s halter so that when released, it flies away from the horse, not towards the horse and possibly striking it in the face or eye. Always untie the horse and release the bar or chain behind the horse before opening the rear door to unload.

Most horse people recommend using shipping boots to protect the horse’s legs during hauling. It’s very easy for a horse to step on him- or herself. The coronary band is especially vulnerable to injury. If you choose to use leg wraps, do so with caution as they can do more harm than good if too tight or left on too long. If used, wrap padding underneath as a cushion.

Trailer is stressful. Don’t make abrupt changes to the horse’s diet just before the trip; such changes, along with dehydration, can lead to colic. Avoid giving dewormers or vaccinations just before the trip; not only do they add to the stress on the body, they might not be as effective.

Recap

Trailer is Your Competitive Trail Horse

- ☐ Towing vehicle and tires must be adequate for the size of trailer and weight of the load
- ☐ Regular maintenance is necessary
- ☐ Plan your route
- ☐ Do a safety check before each trip
- ☐ Condition your horse for trailer is
- ☐ Check requirements for health certificates, Coggins test, etc. for your destination and states traveling through
- ☐ Make each trip as stress-free and as safe as possible for your horse



Swiss Mocha (a.k.a. Coco), owned and ridden by Paula Riley, Region 5 member, became a Horse Hall of Fame inductee in 2014. This gaited grade mare won the 2004 President's Cup and numerous national and regional awards while covering 11,480 NATRC competition miles over her career. Photo supplied.

CAMP SETUP

Safe, comfortable camping with your horse is an important part of an NATRC ride. Ride management has discretion to choose one of several stabling options, however, because of facility limitations, at most rides, horses are tied to their trailers overnight.

Location

You have several things to consider in selecting your spot at camp. Ideally, you will find a place where you and your horse will be comfortable.

Select a location where your horse, when tied to your trailer, will be on soft, flat and level ground free of obstructions (large rocks, trees, bushes and manmade objects). Consider the swinging room your horse can take when moving around at the end of the lead rope, including space behind your trailer. You can toss branches, small rocks, and debris outside of the swinging area.



Close quarter parking. Horse area clean and free of debris.

No neighboring horse. Photo by Cheryl Edmondson.

When looking for a place to park in a cramped area where you will have to park close to another trailer, determine which side on that trailer the resident horse is, or will be, tied. Then, knowing which side you tie your horse, park so the horses cannot kick at each other. Better yet, park so that your trailer is between your

horse and its neighbor, but not so close to the other horse that it can kick your trailer.

Hopefully, this same place will allow you to easily level your trailer for staying and sleeping in, be in the afternoon shade if there are trees, and, should it rain all weekend, enable your truck to pull your rig out of your camping spot.

Tying to the Trailer

There are lots of myths and misconceptions about tying a horse to a trailer, but it has been a requirement in NATRC for many years and has proven to be a very safe way to stable a horse. Horses taught to tie quietly to a trailer are able to handle “on the road” situations with ease, and once they know that the trailer is “home,” they become very comfortable with it.

It is common at rides for horses that are initially nervous or agitated when first tied to their trailers to calm down once they see other horses around them standing quietly. Camping at the trailer does take training of the horse and attention to detail on the part of the rider to do it safely. Think about and practice how to secure your horse and care for his/her needs before you ever leave home. You may need rings, bucket brackets and other modifications to make the trailer your horse's "home away from home" safe and secure.

You can train your horse to stay comfortably tied to the trailer overnight in a manner that allows freedom of movement and the ability to lie down.

Preparing Your Horse for Trailer Tying

Obviously, you must train your horse to stand tied and not pull back. If your horse has problems with pulling back, you will need to correct that issue before attempting to tie to a trailer overnight. Enlist the help of a professional horse trainer if you do not feel qualified to correct your horse's problem.

Here are some ideas to help you get started with teaching your horse to stand tied to a trailer overnight. Take the time it takes at each step depending on what works for your horse.

- Start by tying to the trailer with a short lead rope for 1 or 20 minutes. The length of the rope should allow freedom of head movement. Stay with and perhaps groom your horse, maybe feed a few treats or a little grain to help him or her relax and associate the trailer with a pleasant experience. Repeat this exercise a few times over the course of a week.
- Lengthen your lead rope to about 18 inches. Give the horse a hay bag and allow him to relax and eat for a while. Repeat this exercise a few times over the course of a week, staying nearby so you can help if your horse should get into trouble.
- Over the course of a week or two, slowly lengthen the rope until the end when hanging straight down from the trailer is 3 to 4 inches above the ground. Make sure hay is there to eat,

either in a net or on the ground. Increase the time the horse spends tied to the trailer.

- Next, leave your horse tied up and walk away. Go do chores or work with another horse. Check on your tied horse often and provide reassurance.
- Camp out with your horse at home with your truck and trailer in a confined area. Stay there with your horse, make sure that there is ample hay and water, and check on him or her two or three times during the night. You will find you reassure each other.
- Take the horse, truck and trailer to a location away from home and camp out there. Maybe go to a friend's house or your local fairgrounds for the night. Practice in camping out will help you to refine your setup and will help your horse become bonded with the trailer!
- Practice tying your horse on both sides of your trailer since situations may arise at a ride camp that would prevent you from tying the horse to your preferred side. The horse needs to be comfortable with being on either side, and both sides need to be safe and free of any dangerous or sharp edges or protrusions.



At home away from home. Plenty of hay and water. This horse is lightly blanket for the overnight chill and possible rain after a warm day's ride at the 2017 Indian Territory CTR in Oklahoma. Photo by Mike Collins.

STABLING

Different options are available for stabling and tying your horse depending on the campsite and the discretion of ride management. Besides the usual tying of horses to trailers, other stationary tying using trees or posts might be available. Some campsites allow sliding tethers; others provide pens or small corrals, and some rides allow portable corrals. You need to check with the particular ride, and you might want to try various things ahead of time to know what works best for your horse.

The important considerations in tying your horse to your trailer are:

- to make sure there are no sharp protrusions, narrow places where a horse can catch a hoof, or handles within reach that can catch the halter if your horse should scratch an itch;
- to find a level spot with no large rocks; and
- to keep the tie area away from fire pits, picnic tables, protruding branches, wire fencing, electrical outlet posts, and such.

Tying

Stationary Ties

As mentioned previously, usually horses are stationary tied overnight to their trailers. Other stationary ties such as fence posts or trees might be available. A good tie spot's height would be that of the halter ring. Most prefer the height to be that of the level of the horse's withers or higher. The tie spot should be sturdy and one where the tie will not slide down.

Always have a sharp knife handy. Sometimes a horse can pull even the best quick release knot too tight to undo.

Overhead Trailer Ties

You may use an overhead trailer tie. In its locked position, which should be perpendicular to the side of the trailer, it is a stationary tie. If the overhead tie system includes a length of bungee, it is safer to attach the bungee to the overhead tie and the horse's halter rope attached to the bungee. If you have to release the horse quickly, you can do it at the joint of the halter rope and bungee, with the bungee snapping back away from the horse rather than towards him or her.

It is NOT a good idea to tie a saddled horse to an overhead trailer tie as the horse can swing around and get the tie rope caught under the back of the saddle.

Sliding Tethers

*Contributed by competitors
Carla Jo Bass and Jonni
Jewell, Region 4*

Ride management may choose to allow sliding tethers. Most stabling options selected depend on the campsite. A sliding tether is simply a rope hung high between two points with a ring that can slide along the rope, to which you tie a horse. There are several ways to set up a sliding tether:

- a rope between two rings on the side of a trailer (with height or slightly above) with a ring on the rope so that the horse can "slide" along the side of the trailer
- a rope tied between two trailers
- a rope tied from the trailer to a tree
- a rope tied from tree to tree.



Overhead trailer tie example. Quick release snap within easy reach. Photo by Jonni Jewell.



Hi-line between two trees with stationary tethers. Photo by the TrailMeister.

Some camps are set up for overhead hi-lines between trees or between poles installed in the campground for that purpose. If the campground allows hi-lines tied to trees, ALWAYS use a tree saver. You can purchase these, or you can tie an old girth around the tree. You then tie the line to the tree saver or girth instead of to a narrow rope that would cut into the tree bark.

In addition, you must use "stops" on the rope (line, hi-line). A "stop" is a loop, knot, or ring on the line that stops the sliding tie rope far enough from the tree that the horse can't damage the tree's root system or chew on the tree. Many National Forests prohibit riders from tying horses to trees where the horses can reach the trees with their teeth. If you are using hi-line poles instead of trees, the stops will prevent the horse from wrapping around a pole.

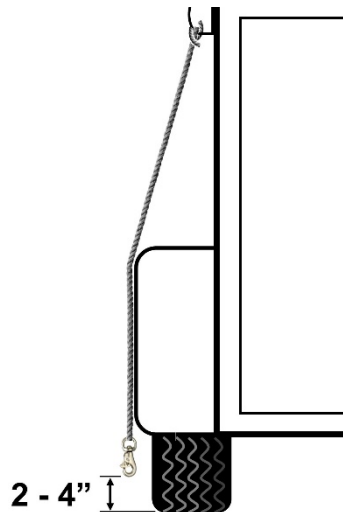
Position the tether line well above the horse's head for safety, unless on the side of a trailer. You must also keep the line pulled **tight with no slack** all weekend. To prevent the horse from getting a leg over the tied rope, the rope attached from the tether line to the halter needs to be a little higher than one foot off the ground when dropped since the tether line has some stretch to it. Using a quick release knot to tie the halter rope to the line is a must.

General Tying Tips

Tie the tie rope with a quick-release knot with the loose end brought back through the loop to secure the tie. Various forms of quick-release knots are acceptable. The loop should not be so large that the horse is apt to fiddle its loose end free, which is especially likely if the rope itself is a short one.

In lieu of a tie knot, you can use a mechanical quick-release snap, as long as the tie length is appropriate. The quick-release or panic snap should be at the end farthest from the horse; it's too hard to try to release a snap under the chin of a thrashing horse. Also, it's too easy for a horse to release him- or herself if the quick release is attached to the halter.

The tie's length must not be so long that the horse could catch a foot over the rope while pawing or nibbling at ground level. For a standard length, the halter snap when unfastened would hang about 2-4 inches off the ground, not touching the ground at bedtime since the rope can stretch during the night. It is acceptable to have the length a few inches shorter if there



is a possibility the halter can catch on a fender. The purpose for the length is so the horse can just reach the ground to eat and be able to lie down if it wants to. Although the horse can sleep standing up, it gets its best rest lying down. During the day, it is acceptable to have the horse tied shorter.



To help with the tie rope being just the right length for overnight at the trailer (just long enough for the horse's nose to touch the ground without any slack that it can put a foot over), mark the place where the rope wraps the tie ring with a permanent marking pen (on light-

colored rope) or with a wrap of electrical tape (works on any color).

Some riders keep an extra lead rope specifically for tying the horse to the trailer. They attach their regular lead rope to the horse's halter and disconnect the dedicated tie rope when they take the horse away from the trailer. This avoids the hassle of tying the lead, checking its length and then retying and adjusting it to the correct length. If you tie with an extra lead rope, check the length during the weekend, as they tend to stretch or the knot tighten and get too long.

A good investment is a nylon adjustable crosstie. Keep it in your trailer specifically for your trailer tie. Clip it to the ring where you intend to tie your horse and adjust it so the clip dangles 2-4 inches above the ground.

If you bring more than one horse, put them on separate tie spots a good distance from each other. Ideally, they should be on opposite sides of the trailer. When this isn't possible and you must tie them on the same side of the trailer, you could use a portable panel securely fastened to the trailer to separate them.

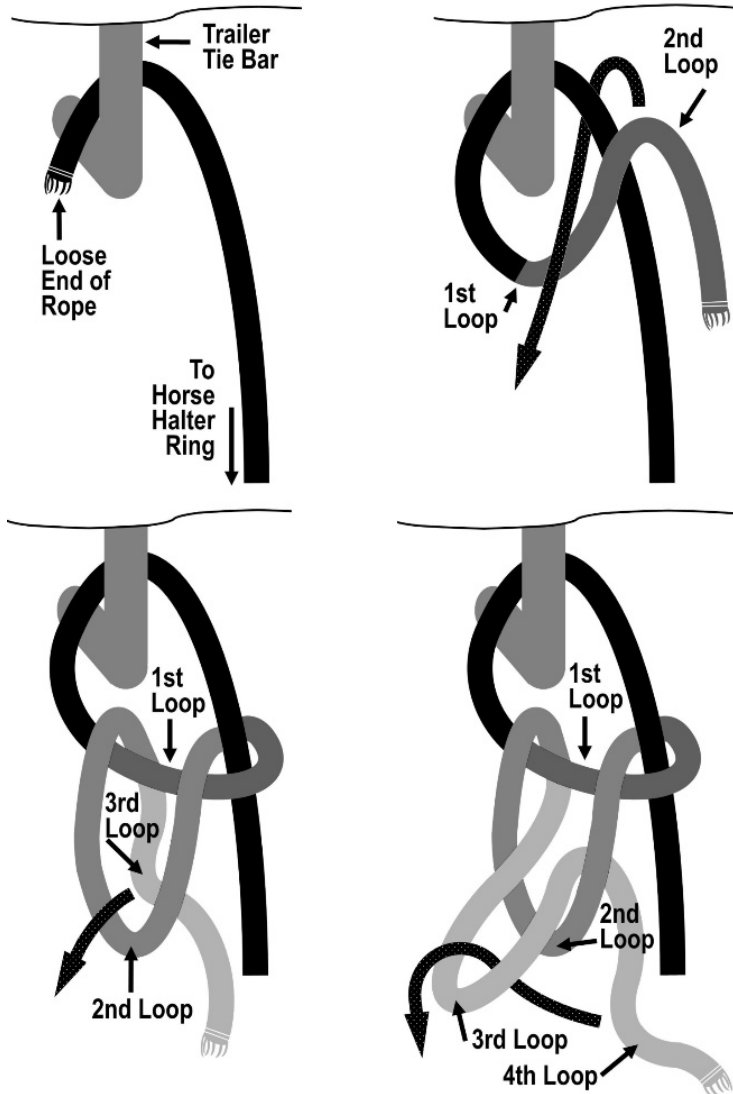
Bungee ties are hazardous if used improperly. If the horse sets back and someone releases the end farthest from the horse, the now-free end becomes a missile toward the horse's face or eye. It is safer to use a bungee with a Velcro-type release than a hardware-type release. Alternatively, you can tie a non-stretchy line between the horse and the bungee; you would then release this line from the bungee and the now-free bungee would recoil away from the horse when released under pressure.

Quick Release Knots

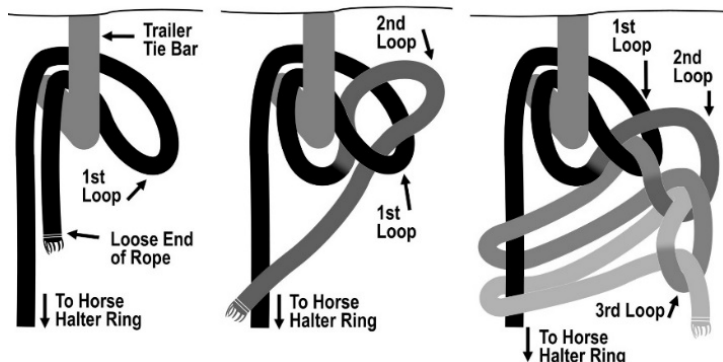
*Contributed by Priscilla Lindsey
Horsemanship Judge, Region 6*

Quick release knots can come in different forms. They each have their pros and cons.

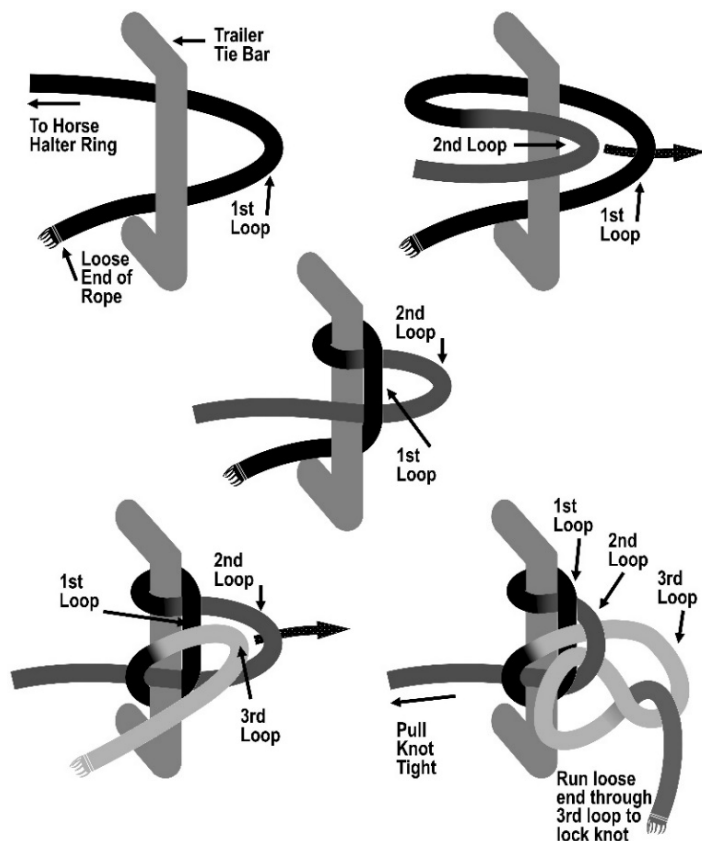
- The Daisy Chain Knot (Chain Sinnet).** This is a series of looped half hitches. It is the quickest and easiest to tie, but it can be hard to untie when there is pressure on it, and it can loosen as the horse moves around. This knot can have as many loops as you like. It is especially good for taking up an extra-long length of the loose end of the rope. In the illustration below, the loose end could be run through the 3rd loop to lock the knot.



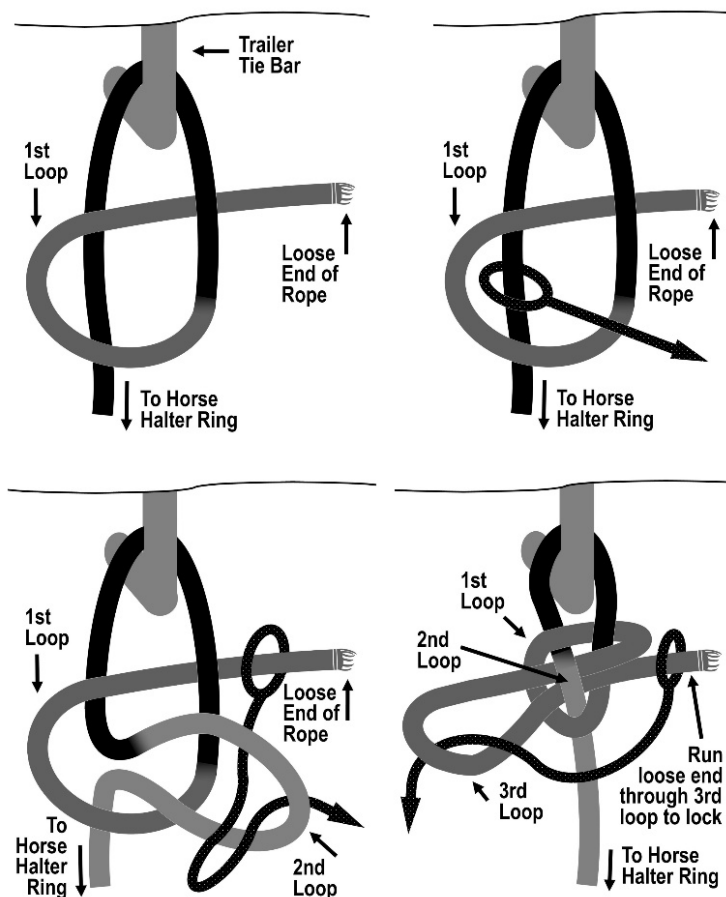
- **Daisy Chain Variation.** When starting to tie the knot, instead of running the loose end around the tie bar, make a loop and run the loop around the tie bar.



- **The Highwayman's Hitch.** This knot is very easy to untie, especially when tied around a post or rail. It is possible for it to become jammed in a tie ring if the horse pulls back extremely hard.



- **The Mooring Hitch.** It seems that this knot is the least likely to jam under pressure. It is easy to learn and quick to tie.



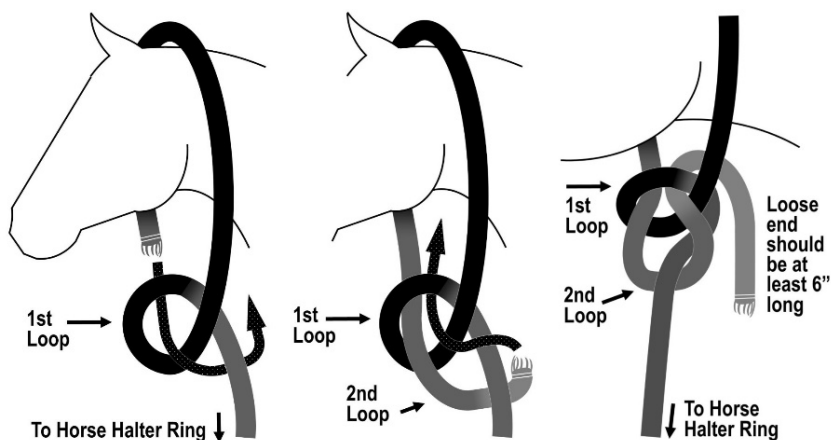
- **Tips for all knots and tying.**
 1. When possible, take a double wrap around the tie ring or post before tying the knot. This spreads the strain over a larger surface of rope. It also helps keep the knot from loosening.
 2. Always lock (secure) your knot by running the loose end through the final loop of the knot.
 3. Ropes with a hard or firm feel are less likely to jam than very soft ropes.
 4. Take care when tying a knot not to put your hand or any fingers inside a loop that will tighten if the horse pulls back.

5. Remember that the rope can loosen up or stretch, and the knot may tighten as the horse moves around during the night. Experience is the only way to determine what is correct for your horse and your tie rope.
6. Be prepared to demonstrate your quick release knot to the judge in case the judge is not familiar with it.

Stallions

When tie conditions exist, stallions must be double-tied at all times. The primary rope is snapped (or tied) to the halter ring and tied as described previously. Secure an additional rope around the neck, run it through the halter ring (or the halter itself), then run directly to a second point above the primary tie point (or through the point at which the primary rope is tied and on to a second point), and tie in the usual way.

If securing the rope around the neck with a knot, the knot should be a bowline. See illustration below. The horsemanship judge may find other secondary methods acceptable. Whatever the secondary restraint is, it needs to be strong and impossible to rub off, such as the bowline-tied loop around the neck, and be snug enough to remain behind the horse's ears. An acceptable secondary method is to use a double-thick nylon dog collar around the neck (the largest size is just right for horses).



The secondary rope should be strong and in good shape (not frayed), and the snaps, if used, need to be heavy-duty; no snaps are preferable. Tie the rope directly to the ring on the collar. Another method is to use a snap at the neck-end of the rope snapped to a ring tied into the neck rope.



Stallions tied with two lines to separate trailer locations. Photos by Jamie Dieterich (above) and Larry Gould (left).

You must tie the primary and the secondary ropes to

different tie spots/points. Some riders use a long rope they can toss over the trailer roof (after running it through the primary tie point) and tie to the tie point on the opposite side.

Portable Corrals

NATRC allows the use of portable corrals securely anchored to a trailer or tree at the discretion of ride management. It's a good practice to have one portable corral per horse. If two are in one corral, it is very hard to tell how much each horse is eating, drinking, peeing and pooping. Even though the horses might be used to being stabled together at home, they might take exception to being in such close quarters.

Supplies

Safely secure containers on the ground or avoid them entirely. Reasonable exceptions can be grain-type, flexible no-handle tubs on the ground when the rider is nearby or the large muck-bucket type tubs used for water. Some judges think the bail on a bucket on the ground, even though secured, is hazardous. Ask your judge if in doubt.

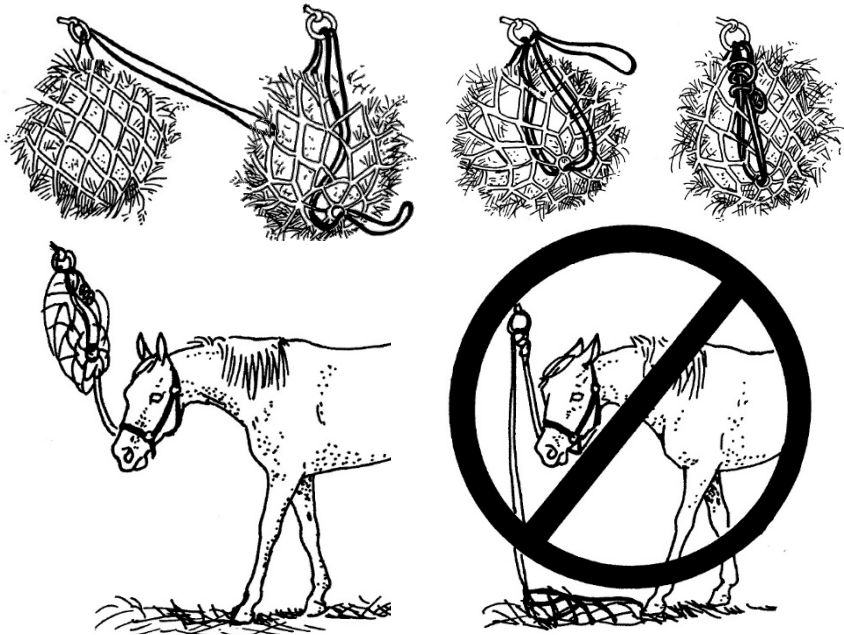
Rakes, grooming tools, tack, spare buckets, camp chairs, and the like within the horse's range of movement jeopardize the animal's safety.

Water

An adequate supply of free-choice water must be available at all times. Secure the buckets so the horse can't spill the water or get a foot caught in the bail. Large muck buckets don't have to be tied, but many riders like to poke the rope handles down so as not to be something for the horse to get caught in.

Feed and supplements

If a standard hay net is used, tie it within your horse's reach and high enough so that it will not droop so low that, when empty, your horse could entangle a foot in it. If your trailer doesn't have a place high



enough to tie the hay net, clip the bottom of the hay net (after it is filled) to its top to shorten the empty length. Or, you can tie each end of it at the same height about 3-5 feet from each other.

Hay nets with small holes designed to be slow feeders do not present the same risk when empty, but you must know your horse and know it's getting enough to eat during the competition.

If a hay bag is used, it's a good idea to secure the bottom of the bag to the trailer as some horse's flip the bag over when they yank on a mouthful of hay. You can feed hay on the ground if you prefer.

Most riders feed concentrates, grains, mashes or supplements in buckets attached to their trailers or in shallow rubber feed pans on the ground.



Free choice salt.

Photo by Jamie Dieterich.

Just like at home, many riders like to have free choice salt available. Methods used range from loose salt in a bucket or rubber pan, mini salt/mineral blocks in holders attached to the trailer, or salt on a rope.

Blankets

Blanketing the horse depends on the weather, the horse's coat, and the horse's condition. At night, a blanket or at least a light sheet offers some comfort as well as helping keep your horse clean. Weather can change dramatically during the night, especially in the spring

and fall. It is a good idea to blanket your horse when the nighttime air turns cool, even if you do not usually blanket at night. After a day's exercise on the trail, standing tied to the trailer and not being able to move around as much as at home, your horse can chill easily. Covering the big muscles can help prevent chilling and stiffness.

If a blanket is used, the belly straps should be moderately snug to the belly since they tend to loosen as the horse repeatedly lies down and gets up. In removing the blanket from the horse, some say to undo the buckles from the rear toward the front and remove the blanket with the lay of the hair if possible. Others say to unbuckle the front, then the back, then the center. Ask your judge first if you are unsure.

Horse/Rider Identification

Team Number

The final act in setting up your camp for competition occurs after you have registered with the ride secretary (covered in Part 4. Competing). This act is posting identification so management and judges can find you. You usually receive two items with your assigned rider/horse number on them: a card and a couple of pieces of tape or tags (may be surveyor's tape).

The card is for your trailer. Be sure to attach it in plain sight near where you tie your horse. If you tie your horse away from your trailer, such as at a post or on a high tie between two posts, or keep your horse in a stall or pen (allowed at management's discretion), you

must identify that tie location in addition to the identifying your trailer. Place it where your horse can't have the card or tape for dinner.

One piece of tape or tag is a halter tag; the other is the bridle tag. Secure them on the near side by the buckle/knot or brow band, respectively. The intent is that your horse be identifiable at all times. Your horse must have its number on it whenever it wears tack items. Additionally, if your horse gets loose, whoever finds him or her can retie your horse to your trailer even if you aren't around. At many rides, managers decide to stable horses in one or more divisions in pens or stalls when enough are available for them. In that case and for safety, your horse will not be wearing a halter while in a pen or stall, so braid the identification tape into his/her mane.

Tape or a tag that flutters on the bridle out on the trail is distracting to the horse. Some riders shorten it, tape it to the bridle, or find some other creative way to display the team number.

Safety

Two potential safety related instances require identification: a horse (mare, gelding, or stallion) that is prone to kick if crowded and a stallion.

For the potential kicker, braid a long strand or two of bright RED ribbons or tape into the horse's tail. This simply warns others to be careful.

For the stallion, braid a strand or two of YELLOW tape or ribbon into his tail. Many stallion owners like to braid yellow into the horse's forelock and mane, too.



Braiding yellow ribbons into a stallion's tale plus a red ribbon for being a potential kicker, 2008 Cass County Trails CTR in Texas. Photo by Debby Starr.

Recap

Camp Setup and Stabling

- ☐ Select a comfortable location for your horse free of large rocks, obstructions, and away from other horses
- ☐ Train your horse to be tied to the trailer overnight
- ☐ Use a quick release knot when tying
- ☐ With the tie rope fully extended, the snap should be no closer than 2-4" from the ground
- ☐ Double tie a stallion
- ☐ Tie hay nets high to avoid a horse entangling feet in the net
- ☐ Display your team number on your horse and your trailer
- ☐ Tie a red ribbon on a potential kicker and yellow ribbons on a stallion

Competing in a Competitive Trail Ride

4

SEQUENCE OF RIDE ACTIVITIES

Every ride sanctioned by NATRC follows the *general* steps below. This format is for a 2-day ride. Ride chairs for 1-day rides, whether they occur on a Saturday or a Sunday, may ask that you arrive the day before. Leisure Division (LeD) rides are designed so you can arrive, compete, and leave on the same day. It all starts for you, the rider, with your arrival at ride camp.

Day before - Friday

- Arrive at ride camp early in the afternoon.
- Select a campsite and set up camp (level trailer, water your horse, etc.).
- Register at the “office” to pay your remaining entry fee and receive your rider packet.



Registering at the 2015 Robbers Route CTR outdoor “office.”
Photo by Mike Collins.

- Place your rider number at the required places, clean up your horse, put on your rider number vest/bib, and present your horse for the baseline check-in veterinary exam.
- After the exam, you are free until ride briefing, which is usually right before or right after dinner. Some rides hold potlucks for dinner; others allow you to buy dinner, and even a few feed you “for free”! Of course, you can bring your own food and go to briefing after eating at your campsite.
- Take care of your horse and hit the sack.

Ride Day – Saturday

- Saddle up, assemble with the other competitors, and time out on the trail.



Riders assembling in preparation for timing out on the trail at the 2010 Horsemasters CTR, Texas. Photo by Jim Edmondson.



Ride kick-off day at the 2017 Indian Territory CTR. Some rides play the US National Anthem on Saturday morning. Photo by Mike Collins.

- Ride the trail for some 5 to 7 hours, negotiate obstacles, stop for P&Rs and lunch (if there is one).
- Arrive at camp and time in with the timers as you come off the trail.
- Make you and your horse comfortable, eat a bit, and clean up your horse for the end-of-day veterinary exam.
- Get your horse examined. Sometimes the judges ask you to bring your horse to the veterinary exam area and sometimes the veterinarian prefers to come around to your trailer. Either way, the horsemanship judge will come around to check out your horse's stabling area.
- Have supper and attend briefing.
- Take care of your horse and hit the sack.

Ride Day - Sunday – pretty much the same as Saturday with the exceptions shown in *italics*.

- Saddle up, assemble with the other competitors, *do an in-hand or mounted trot-by for the judges (veterinary judge looking at soundness; horsemanship judge looking at your lightness)*, and time out on the trail.
- Ride the trail for some *4 to 6 hours (usually the trail is shorter on Sunday)*, negotiate obstacles, stop for P&Rs, and lunch (if there is one).
- Arrive at camp and time in with the timers as you come off the trail.
- Make you and your horse comfortable, eat a bit, and clean up your horse for the *final* veterinary exam.
- Present your horse for examination. This will be at the same place where you checked-in on Friday.
- *Turn in your number vest/bib.*
- You are free to do whatever you want while you wait for awards. Some riders have a long drive home and need to get there to be able to return to work on Monday, so they request permission to leave early after arranging for someone to pick up their horse and horsemanship cards and awards for them. Then they head home.
- Awards ceremony!



Photo by Richard Rosinski.

After awards, camp becomes a ghost town as most of the rest of the riders leave. A few stay overnight as do some members of ride management for a fresh start home in the morning.

What to Carry and Where

*Contributed by Bev Roberts
Competitor, Region 4*

Experienced competitors carry a variety of items in competition. The minimum list below is what everyone carries; some of which the horsemanship judges expect you to carry and may ask to see. Many of these you should carry on yourself for quick access or in the case you and your horse part ways. Others you can tie to your saddle or place in saddle/cantele/pommel bag(s). The choice of where to carry items is ultimately yours. Suggestions are in the discussion below.

Because while you are in competition you are probably no more than 5 miles from ride management, judges or volunteers and just minutes from other competitors or safety riders, you may not wish to carry the additional things you would carry when conditioning.

*The choice of
where to carry
items is
ultimately yours.*

Minimum

As a minimum, you should carry these items:

- **Helmet** – Wear it. There is no excuse these days for not wearing a helmet. There are a wide variety of styles, colors, brands and accessories from which to choose. Helmets can and have saved lives. Ask any seasoned competitor and you will find that they have had an experience, or know someone who has, where their helmet saved them from a serious head injury or death. Yes, they can make your head itch, but, on the other side of the coin, have you ever dunked your helmet in a stream and put it on your head on a hot day? So “cool!”
Wearing an equestrian safety helmet is required for junior riders in NATRC and encouraged for all riders. Not all helmets are safe for trail riding. Be sure yours is a safety-approved, equestrian helmet that fits properly.
- **Canteen/Water Bottle(s)** – Carry on you or your saddle. You may want to carry two; one for your drinking water, one for wetting down your horse.
- **Halter** – You need some way to tie your horse securely should the need arise. You have a couple of options: (1) a conventional halter or a rope halter either tied onto your saddle, carried in a saddlebag, or placed on your horse's head under the bridle; (2) a combination halter bridle.

- **Lead Rope** – If you ride with split reins, you can add a snap to one of the reins for snapping it to the bit. For this rein to double as a lead rope, unsnap it from the bit and snap it to the ring on your halter bridle. If you ride with closed reins, both ends need snaps in order to use it as a lead rope. If you choose to carry a separate lead rope, do not attach it to the halter, run it around your horse's neck and tie it at the chest. It can catch on brush, or worse, if you go into a pond to water and the horse flounders and catches a front leg in the lead rope pulling his head under water, you have a disaster on your hands. Can you retrieve your knife and cut the lead rope while your horse is struggling for its life?
- **Ride Map** – This is vital to your timing, pacing and knowing where you are. Keep it handy in a pocket, a waist “fanny” bag, a pommel bag, or in a clear waterproof case attached to the front of your saddle.



- **Hoof Pick** – Easy to access from your pocket.
- **Knife** – Always carry a knife on you, even in camp. You never know when you might need it.
- **Fan** – A collapsible fan, bucket top, or anything you can fan your horse with to aid cooling at a P&R stop.

- **Sponge on a String/Water Scoop** – Tie or clip the string to a front saddle ring. Make sure the string is long enough to reach the water in a shallow stream. Practice at home to become proficient and accustom your horse to the “snake” you just threw in the water. Toss it in the water on the downstream side so it stays away from your horse’s legs. If you carry a scoop (usually tied to a ring at the back of your saddle), you will most likely have to dismount to use it. This is handy if your only water is at a horse-watering tank as it does not contaminate the water with salt and bug spray chemicals, yet you can still wet the critical cooling areas on your horse.
- **Watch** – On you. Necessity for tracking your time.
- **Leather or Nylon Ties** – On your saddle or in a bag. Used primarily to tie such things as jackets, rain gear, or spare hoof boot onto your saddle. Used secondarily for an emergency tack repair. Western saddles come with these and you may have to cut one or two off for use in an emergency. For saddles with rings, put strings on clips and clip them to the saddle rings.

Other

- **Lip Balm** – Carry it on you.
- **Horse’s Lunch/Electrolytes** – Unless the trail master or ride chair announces that they will carry all competitors’ horses’ feed for them to the lunch stop, then you must carry feed, electrolytes, or treats for your horse yourself. If there is no lunch stop, consider carrying electrolytes or treats.
- **Your Lunch/Snack** – The same applies for your lunch as for your horse’s. If there is no lunch stop, then you may wish to carry a snack. It is usually 7 hours from breakfast until you arrive back in camp.
- **Heart Rate Monitor** – A few riders use heart rate monitors in competition to help gauge how their pacing is working. Many use them for conditioning to avoid overworking their horses. Even if you have and use a heart rate monitor, it is still best to learn to read your horse’s behavior and develop a feel for when all is well and when not all is well.
- **GPS** – Many riders like to carry Global Positioning System receivers as a way of checking their pacing and timing. They also have a digital record they can download onto a map at home.

- Cell Phone – More and more ride locations have cell phone coverage. The smart phones can double as a GPS, are useful for taking photos along the trail, and of course, ideal for contacting the ride chair in case of an emergency. Carry it on you.

- Wire Cutters – Even during competition, and most certainly when

conditioning, it is a good idea to carry these in a saddlebag in case your horse or another's tangles in wire. If you don't have wire cutters and can't lift your horse's leg out of the wire or unwind the wire, you can break the



wire with your bare hands. Here's how: grasp the wire, at the location you want to break, between your thumbs and fingers of both hands. Bend the wire back and forth many times by rolling your hands first so the backs of your fingers meet and then 180 degrees so the backs of your thumbs meet. After a minute or so, you will feel the wire heating up and the bending will become easier; a few more bends and the wire breaks. You have just "fatigued" the wire causing it to fail.

- First Aid Kit – The human kind. Add aspirin to the kit to give to someone who might be having a heart attack.

What to Wear

Your vest/bib number should be clearly visible at all times. Be sure your clothing or hair is not covering it. Judges note and record observations according to your number. It is helpful for them and management if you wear your bib in camp besides on the trail.

The clothing you choose is entirely up to you. It is best to dress in layers so you can adjust for changing conditions. Because most rides are in warm weather, for the upper body, avoid cotton/acrylic blends, which hold the heat. All natural (like cotton) or all synthetics

designed to wick away sweat work well. Wear stretchable or roomy clothing that allow you to move your arms in all directions without binding.

Many riders select pants that are stretchy for comfort and ease in mounting and dismounting. Pants with straps under your feet or tight at your ankles keep the pant legs from riding up. If you can, avoid inside seams on your pants, or you may find your knees rubbed

Like the items you carry, what you wear is also your choice. Wear what is safe, keeps you warm / cool and dry and is comfortable.

raw. Carry rain gear if foul weather is in the forecast. A plus for keeping your seat dry is rain gear that also covers your saddle. In addition, don't forget your helmet. Adding a brim to it keeps the sun off your face, and adding a cover over the air vents and brim keeps the rain from dripping down your neck.

Don't wear clothing that is so loose that it flops around or catches branches and brush when you are moving out on the trail or might catch on parts of your saddle when you dismount.

For the most comfort in inclement weather, keep your hands, legs and feet warm and dry, too. For hands, gloves do the trick. They come in breathable material for summer, insulated material for winter, and even neoprene (like a diver's wet suit) for wet weather. The best for riding are flexible and fit like a second skin.

For their legs, some riders opt for full chaps. However, these can add a lot of extra weight. Others use lighter rain pants, which also act as windbreakers. The drawback here is the constant contact and rubbing against the saddle soon wears off the rain coating and water wicks though. Some form of drape, either as part of the raincoat or a separate "sheet" around the waist under a jacket, seems best at shedding water. Whatever you choose, be sure it doesn't get in the way of mounting or dismounting, that it is snug enough to not snag things, and that you can safely handle your horse in hand or mounted.

You can protect your feet in a number of ways from rain and cold. You can wear waterproof boots with the tops under your pants legs, or wear half chaps that zip down over the top of your shoes or boots, or have a raincoat long enough that with your legs bent in the saddle, the coat covers your feet. You can put removable solid covers (tapaderos) over your stirrups to keep your toes cozy.

While judges do not evaluate the clothing you choose to wear in competition, they may evaluate the safety of your riding apparel. For example, a stirrup so large in proportion to the shoe that could allow

your foot to slip through it is unsafe. Similarly, a disproportionately small stirrup could trap your foot if you fell from your horse.

In general, leather riding boots (English or Western) provide protection for the foot, shin, and Achilles tendon. When the rider is mounted, the boot's heel can serve to prevent the foot from slipping through the stirrup in a violent action.

A substantial boot such as a hiking boot protects the foot and Achilles tendon, and it supports the ankle. Its breadth, however, might cause it to fit too snugly in a narrow stirrup. In addition, lug-type soles will not readily slide out of any stirrup in an emergency requiring instant freedom. Running shoes with a tread can present the same problem while affording less protection.

Several riding shoes/boots have a distinct heel, a smooth sole, provide cushioning, and offer ankle protection, while being cool and comfortable.

It will take a lot of trial and error to observe, to ask other riders what they use, and to figure out what works for you and your horse.

Recap

What to Carry and Wear

- ☐ Carry items that aid you in navigating the trails
- ☐ Carry items for cooling, hydrating, snacking and salt replacement
- ☐ Carry emergency items
- ☐ Wear a helmet, appropriate footwear, and other protective items
- ☐ Dress in comfortable layers
- ☐ Carry foul weather protection
- ☐ Carry and wear what YOU choose

Timing and Pacing

General

The terms *total time* and *riding time* are not the same. The total time is the time that elapses between leaving the starting line and crossing the finish line; the total time includes the lunch and P&R (pulse and respiration) stops. Riding time refers to the actual riding time not including the lunch and P&R stops.

Most rides have suggested arrival times at several checkpoints along the trail, and time penalties may be assessed for early or late arrival to these checkpoints. There are two purposes for that: (1) to help riders gauge the intended pace of the ride so they can tell if they are traveling more or less on schedule, and (2) to help management and judges keep themselves on schedule.

The essence of pacing your ride is to cover the marked trail comfortably within the time allotted with the least amount of stress on your horse and you.

For uniform judging, the judges observe every horse (veterinary judge), every rider (horsemanship judge), or every team (LeD judge) at their respective judging points on the trail. If 30 riders spread out 2 minutes apart, it would take 60 minutes for them to pass a particular point. A rider's pace may cause problems for management in transporting judges and P&R teams to their next scheduled judging point. If a rider rides very much ahead, then, by the time the judges complete their work at the current location, the rider might already be past the next judging point before the judges and ride personnel arrive there. Or, if a rider is very much behind the suggested checkpoint times, that rider will delay the ride personnel and judges from leaving for the next judging location.

If ride timing is too slow for your horse, as happens occasionally, you may stop along the trail, linger at P&R stops, or spend extra time at lunch so you will not be too early at checkpoints. As with all timing matters, the pre-ride briefing would include pertinent information about point-to-point times.

The easiest way to keep track of your time is to set your watch at 12:00 (straight up) when timing out in the morning start. Many riders use two watches, one for real time and one for ride time. Your "ride watch" will then tell you what the elapsed time is since you left the start. For example, if the suggested time to the first checkpoint is



1 hour and 5 minutes, you would be precisely on schedule if your watch read 1:05 when you reached the checkpoint. Such precision is uncommon though, and most riders' watches would probably read between 1:00 and 1:10, plus or minus. Now having an idea of your pace, you would speed up or slow down accordingly, varying your times or pace here and there throughout the day. If the total time for the ride is 7 hours minimum and 7.5 hours maximum, a comfortable time to cross the finish would be about 7:15 by the watch, which would be considered mid (middle) time.

An exception to being able to stop on the trail occurs within the last 2 miles (1 mile for Leisure). There is a properly identified "forward motion" point about 2 miles/1 mile from the finish line each day. Riders may stop and wait, mounted or dismounted, at the forward motion point itself. From this posted point into camp, riders must maintain forward motion: no stopping, backing, weaving, or zigzagging. Riders must not stop or dismount except in extenuating circumstances dictated by good horsemanship and sportsmanship. Forward motion is by the most direct route following the marked trail. Like a 15-minute warning, the forward motion marker gives riders a fair shot at being on time. It also encourages proper rating/pacing, assures that the horses arrive in camp in a similar state of exertion, and prevents riders who finish too early from waiting just outside the finish line.

Usually the trail master times the last 2-mile/1-mile section so that, if you have properly paced yourself, your horse can walk to the finish. You should make it a point to learn how fast your horse normally goes at various gaits.

Some riders plan their timing so they will have 5 or 10 minutes at the forward motion point to give them leeway in the event of a tack problem, an off course error, or some timing misjudgment on the part of management. However, it's not wise to push your horse to arrive early at this point if it means trotting downhill or over rocky ground, thus jeopardizing soundness.

How to Pace Your Horse

Because competitive trail riding involves covering a certain distance in a given amount of time, it's good to get a feel for how fast you are traveling, or, in other words, what "pace" you are going.

With the evolution of electronics and satellites, the global positioning system (GPS), and devices to communicate with the GPS, you can accomplish the task of learning your normal pace. As long as your GPS can see enough satellites, it can continuously track your location. The GPS operating system knows the time and does the calculation of your current speed and average speed for you. It even keeps records of your track (where you went) which you can view on a map.

Another system is to take a familiar section of trail and mark it at 0.5 and 1 mile. Be as accurate as possible. Arm yourself with a stopwatch and let the training begin!



Mount up and ride towards your starting point. Sit up, pay attention, feel the horse. Leave yourself enough room to get your horse settled into the desired pace before you cross your timing line. Don't try to set a speed in advance at this point; use what is comfortable for you and your horse. Start the watch when you cross the start line. Concentrate on keeping a constant pace. Feel the rhythm of the horse. Count the cadence for your horse to march to. Feel the rhythm and remember what it feels like. When you cross the stop line, stop the watch and check your time.

The following chart gives times for 0.5 mile and 1.0 mile. Compare your time to the chart. After several passes across your measured spots, you should have a good idea of what speed you are maintaining. Repeat the process until you have a good feel for your constant pace for 1.0 mile.

Pace MPH	Minutes: Seconds	
	0.5 mile	1 mile
3.0	10:00	20:00
3.5	8:34	17:09
4.0	7:30	15:00
4.5	6:40	13:20
5.0	6:00	12:00
5.5	5:27	10:55
6.0	5:00	10:00
6.5	4:37	9:14
7.0	4:17	8:34
7.5	4:00	8:00
8.0	3:45	7:30
8.5	3:32	7:04
9.0	3:20	6:40
9.5	3:09	6:20
10.0	3:00	6:00

If your pace is 3.5 miles per hour (mph), and you want to go 4 mph, pick up your pace and check your time until you can consistently do 1.0 mile at 4 mph. As your training proceeds, remember the same speed feels different on hills than on the flat. Mark off some sections on the hills to practice on, too.

You might find you and your horse always fall into a comfortable pace and that you just don't want to work on going faster. The main thing is that you develop a feel for *your* pace. During competition, if the average ride pace is 5.0 mph and your practice pace is 4.5 mph, you know you have to do part of the ride at faster than your standard pace. You will take advantage of level areas with good footing to trot out and "make some time" (increase your average pace). With practice, you will develop a good feel for how long it takes to cover 10 miles at your pace, or what pace you need to do to cover 10 miles in a certain time.

Whether you do it the old-fashioned way or the 21st century way, you need to know your normal pace and learn what it feels like.

Timing and Pacing in Competition

It is your responsibility to attend the ride briefings where the trail master explains the pacing and timing. Many riders use colored highlighter pens to mark their trails on the ride map. Take note of what color of ribbons your division follows. Pay attention to point-to-point times given. From the total ride time, subtract the lunch time and 15 minutes for each P&R. This equals the riding time. Divide the ride miles (given on the ride map) by the riding time; that equals the average mph of the ride. Some rides figure this for you.

You should know the average walking, trotting, uphill, and downhill pace of your horse. A ride timed at a walk probably means a 4 mph walk. If the average pace of the ride is 4 mph and your horse walks 3.5 mph, you know that you'll need to do some trotting. Pay attention to the discussion of the ride map because the trail master will likely mention where there are good places to trot. Figure the pace out the night before the ride and be aware of the point-to-point times on the map.

Management will tell you how to read the ribbons. For example, most trail masters

place the ribbons on your right and mark the turns in a distinctive manner, such as with three ribbons at the turn.

Keep in mind that ride management needs to plan to get P&R teams to their designated locations and judges to as many places on the trail as possible. If you ride outside your overall 30-minute window of time, you'll risk being not seen at an observation point. This would not only be inconsiderate for those who must keep track of you for safety reasons, it could cost you some points.



This rider is probably doing 2-2.5 mph on the downhill. She and her horse will be making up time on flat ground later. Photo by Gary Walls.

Timing Your Ride – Open Competition

Contributed by Lory Walls

Competitor, Horsemanship Judge, Region 2

Timing begins during training and conditioning. Develop and learn ground speeds (walk, trot and canter) to the point that you and your horse are comfortable, and you can maintain the gait for several miles. During the training/conditioning periods, using some sort of GPS system, establish a rate of minutes per mile over varying terrain. Ask yourself, “How fast do I have to ride to compete at 5.0 mph?”

The average daily Open ride is 30 miles. At 5.0 mph, this will take 6.0 hours (excluding P&Rs and lunch). Ten miles into the ride, one should have consumed 2 hours. During the early part of the ride, many riders ride on or near the minimum time. This allows 30 minutes for solving tack problems, drinking and cooling times at water stops, missing trails or any other problems that can arise.

From the times given by the trail master (usually listed on the back of the map), write the point-to-point times on the map itself, including lunch and P&R times. This way, the information is on the map and easy to check while riding. During the trail briefing, the trail master will usually indicate/note where there are climbs (up and down, slow areas), level trot areas (where you can make up time), and any other points for recognition/location of turns, etc. during the ride. Be sure to add this information also to your map. All the information you obtain about the trails will aid in pre-planning where you can go faster to make up for earlier lost time.

From your conditioning/timing rides, you know the speeds you and your horse must maintain, and you know how fast you want to move out at the start of the ride. Since you do not know exactly how your speed compares to the trail master's, at the first time checkpoint on your map, check your time compared to the suggested time. If the first point is 5 miles into the ride, and the ride is “timed” at 5 mph, you should be out approximately an hour. Now you know you are going close to the correct speed/timing for the ride. If you are 5 miles into your ride and are 1 hour and 20 minutes into the time, you know you need to pick up the pace. Ride by the conditions of the trail, then speed up or slow down as required by checking your time at every map checkpoint. If you find you are constantly running late, there might be a map timing or distance error. Often it is worthwhile to check with other riders or management. You might need that time at the end of the ride day. Many riders prefer to move faster during the early, cool part of the day and slower in the hotter afternoon section of the ride.

Riders often worry about P&R stops, but you can easily figure the location if the trail master has not told you where they will be. Normally the first P&R stop will be at a stressful point on the trail (during an uphill climb, deep sand or mandatory trot). Pick your pace into the P&R. Most riders go as slow as their mount will walk or trot without getting frustrated. If there is a “forward motion” sign into the P&R, you may rest before proceeding. However, remember, once you see the P&R crew, you must proceed into the P&R.



No doubt there was a P&R at the top of this long climb at the 2019 Colorado Trail CTR in Colorado. Photo by Bill Wingle.

Pick your pace to maintain your desired timing (whether you prefer minimum, maximum time or somewhere in between) until you approach the second P&R. You can generally pick your own comfortable pace for the first two-thirds of the ride; however, keep close to the suggested point-to-point times. As long as you are within the times recommended by ride management for certain checkpoints, you should be good on timing.

Upon leaving the second P&R or the last third of the ride, know how much time and distance is left. For example, if there are 10 miles left and 2 hours remain to complete in minimum time, you can slow down a little. Walk some of the slower spots, stop and allow your horse to eat some grass, spend some time at good water. Start planning for the next day by conserving energy and saving your horse. For the same reason, if you have 10 miles to go and only an hour to **minimum** time – it should not be a big problem. If you are riding on minimum time, you really have an hour and a half to complete, so use it. You know what you need to do. Pick it up a little on the easy spots to avoid pushing in the difficult spots.

Managing your ride time is putting your time on paper and your mind to work on the trail. Ride the trail conditions and move out when possible.

Know your animal and feel your ride. Simply ride your ride, pick your pace and work with your horse. Have fun!

Never cross the 2-mile forward motion marker with more than 30 minutes left to minimum time unless you have an extremely slow horse or you know the terrain in the last 2 miles is difficult. However, plan every ride so that you do not have to wait at the forward motion marker for an extended period. Time your ride by the trail; try not to ride the “minimum time” (fast) later in the ride. It is best to finish the last 2 miles at an easy walk.

Another basic consideration to timing your ride is with whom you ride. It is rare that a horse can travel with other horses, at other horses' gaits, so be sure that the horses with which you choose to ride will move at your horse's pace. If the purpose is to do well, perhaps it is best to ride by yourself. Enjoy the friendship of others, but ride your own ride.

*Know your animal
and feel your ride.
Simply ride your
ride, pick your
pace and work
with your horse.
Have fun!*

Time Penalties

Management sets a minimum and maximum riding time for the day's trail. There is a 30-minute window between the minimum and maximum time, and competitors must arrive back at camp within that period to avoid penalty points.

At the finish line, if a horse arrives within 30 minutes either side of the "30-minute window", the horse receives one penalty point for each minute early or late, and the rider receives a penalty, too. The actual rider (or LeD team) point deduction is at the discretion of the horsemanship (or LeD) judge. Thus, a team could ride well but be

out of the ribbons with perhaps only a small timing error. Arriving more than 30 minutes early disqualifies you and your horse. Arriving more than 30 minutes late (i.e., 30 minutes after maximum), gives the horse and rider team completion points and mileage only.

Official Delays

If riders are delayed by the ride management or judges (such as at a judged observation), the lost time can be credited to the rider's maximum time. Minimum time is unaffected. If delayed, keep track



Note the rider in the background on the right at the 2018 Pine Grove Giddy-up CTR in Arkansas. She is checking her watch in order to keep track of the time she will be waiting for riders in front of her to complete the judged obstacle before it is her turn. She will give that delay time to the pony-tailed woman in the background, left.

Photo by Brandy Steele.

and report your lost time at the point where you lost the time to someone (ride management or other volunteer) who will record it. *Remember: make sure to keep track of observation/obstacle hold-ups and give those delay times to ride personnel at the time of the hold-up.*

Off Trail

If you find yourself off trail, go back to where you last saw ribbons or other trail markings. Do NOT try to go cross-country; stay on a road or trail where someone can find you.

Every ride has safety personnel on horseback, on ATVs, or even in vehicles who keep track of where the riders are. Those on horseback may be riding the trail some distance behind the last rider in a division. They are there to help you or your horse if either of you have a problem or sustain an injury and to find anyone who is lost.

If you get lost (off trail), you must return to where you went off trail and continue. The length of time you were off trail will dictate how much you'll have to pick up your pace in order to get back on schedule. Do not short cut and gain a competitive advantage; you could be penalized or disqualified. Even if you determine that you can't finish the ride in the allowed time, return to where you went off trail so management has a chance of finding you.

If you become lost for a long time and finally make it back to the trail, there's still a good chance you can finish the ride and at least get points for completion. Do not over-ride your horse to make up time. See the NATRC Rule Book for possible penalty points for being off trail.

Most riders get lost (off trail) from time to time. They miss turns. Ribbons are blown down, knocked down, washed away by rain, and even eaten by cattle. Occasionally someone, not associated with the ride, thinks it is funny to remove ribbons completely or hang the ribbons somewhere else.

Ask any seasoned competitor how they avoid getting off trail and they will tell you these things:

- They always know where they are on the map and where they expect the trail to go.
- They stop if they don't see the next ribbon ahead.
- They do not blindly follow the rider in front of them.
- They make sure they are looking for ribbons even if they are talking as they ride along with other riders.

When they do stop, sometimes in just looking back, they see a ribbon that was hidden to them and they know they are not off trail. Sometimes, even back tracking, they cannot find another ribbon, so they wait a bit for another rider who may spot the errant ribbon.

If a competitor is riding somewhere in the middle of their division, which means there are other riders ahead of them, and do not see the next ribbon, they glance down at the trail to see if there are hoof prints left by those who are ahead. If there are hoof prints, they keep going another hundred yards or so until they spot another ribbon. If there are hoof prints but no more ribbons, then those in front may be

off trail, too. Time to head back to the last ribbon they saw and look elsewhere for the next ribbon.

Because everyone is riding at the same pace, there is usually less than a minute between single riders or groups of riders. NATRC competitors are the best of sportsmen. If someone behind you sees that you are heading off trail, they'll holler to you and let you know.

Recap

Timing and Pacing

- ☐ Aim to cover the trail in the time allotted with the least amount of stress
- ☐ Carry a second watch to use for ride time
- ☐ Know how fast your horse travels at various gaits
- ☐ Always know where you are on the ride map
- ☐ Know where you can make up time for time lost during the inevitable uphill and downhill portions of the trail
- ☐ Generally ride toward the minimum time in the first half of the day and slow your pace during the second half
- ☐ If riding with others, find teams who travel at your pace
- ☐ If you get lost, go back to the last place you saw a ribbon and proceed from there, adjusting your pace to accommodate for the lost time
- ☐ Know the penalty for late or early arrival
- ☐ Keep track of delays at obstacles and give time to ride personnel
- ☐ Add official delay time to your maximum time
- ☐ Keep moving forward after passing the forward motion point
- ☐ Ride your own ride



Windstorm Sienna, owned and ridden by Region 5 member, Wayne Tolbert, became a Horse Hall of Fame inductee in 2015. This Morgan mare won the 2003 and 2005 President's Cup and numerous national and regional awards while completing 9,100 NATRC competition miles over her career. She was VERY reliable and took care of herself on the trail. During one year, Tolbert traveled to 16 states and once to Canada to compete her and never once worried that she would not make the trip or complete the ride. Photo supplied.

THE RIDE BRIEFING

Each evening before each day's ride, management holds a meeting of the competitors, volunteers and judges to brief the riders about the trails and times.

Introductions

The first part of the briefing is introductory. You'll meet more of the competitors besides the ones you are camped near. The ride chair introduces the judges, trail master, rules interpreter and other key volunteers and guests. The chair will

- cover facility rules and requirements such as what to do with your horse's manure and your trash, leashing of dogs, generator cut-off time, where smokers can smoke
- double check that everyone - competitors, judges and volunteers - has signed their liability waivers and that the competitors who need to weigh in have done so
- probably introduce first time competitors and ask longtime competitors to give the "newbies" a helping hand
- remind you of emergency numbers you can call for any emergency on the trail or in camp, if cell phone service exists at the ride location
- upon completing announcements, turn the meeting over to the trail master to hand out the ride maps and brief everyone on the next day's trails



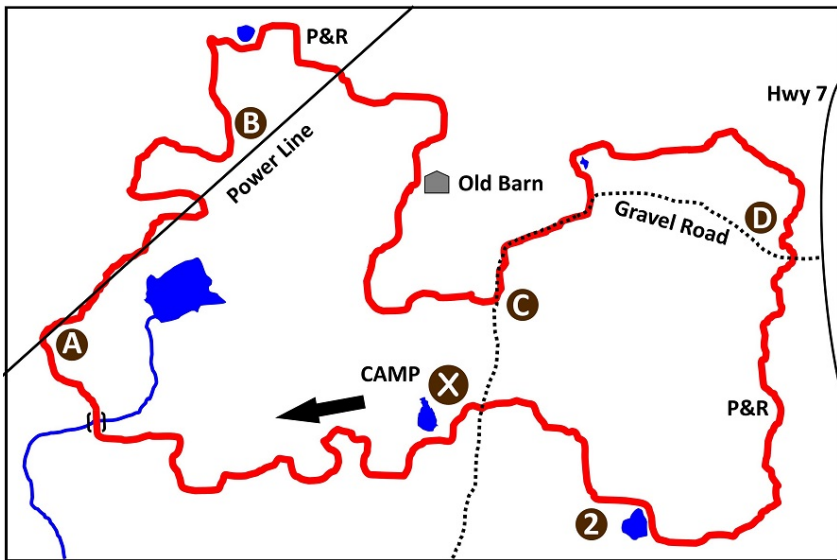
Ride briefing at the 2012 Indian Territory CTR, John Zink Ranch, Oklahoma. For over 35 years, NATRC has been, and continues to be, the only equestrian group allowed to hold an event on the ranch. Photo by Jim Edmondson.

Map

Most trail masters prefer to hand out the maps at the briefing. Some include your ride map(s) in your rider packet. This gives competitors a chance to become familiar with the map and timing prior to the ride

briefing. If this is the case, remember to bring your map with you to the briefing.

The map will show the camp and relevant trail features such as roads, lakes, power lines, bridges, oil wells, radio towers and train tracks to help you orient yourself during the ride. It will also give you points along the trail with mileage, so you can check your pace against ideal ride time. Most trail masters will include the times at these points. Also, remember that there will be at least two P&R checks along the trail. Each one of these takes 15 minutes of ride time, so the rider must factor in the extra time allowed for each P&R.



Sample Ride Map

A distance/ time chart for a ride might look like the following table. In this sample, management has given you the point-to-point times with the P&Rs included. It's wise to always double check given times.

POINTS	DISTANCE (miles)	TOTAL DISTANCE (miles)	TIME (mid-time)
CAMP - A	5.0	5.0	1:15
A - B	3.6	8.6	2:09
B - P&R - C	4.8	13.4	3:36
C - D	2.2	15.6	4:09
D - P&R - 2 mi	2.4	18.0	5:00
2 mi - CAMP	2.0	20.0	5:30

At most rides, the times given are mid-times. That means if you are staying in the middle of your window throughout the entire ride, you are riding on mid-time. Some rides give them as minimum times, so if you aren't sure, ask. Let's take a look at this in detail.

Conveniently, the trail is exactly 20 miles from start to finish and the trail master has announced that the average riding pace is 4 mph. This means the riders should average 1 mile every 15 minutes. There will be two P&R checks during this ride, so management gives the riders an extra 30 minutes to include them. The math will look like this:

20 miles at 4 mph = 5 hours

5 hours + 30 minutes (15 for each P&R) = 5 hours 30 minutes

Allowing for our 30-minute window, we discover we must complete the ride between 5:15 (minimum time) and 5:45 (maximum time).

Boldly mark the maximum and minimum times on the face of your map as this is your completion window.

Now, let's break the ride down into times from point to point. Point A is 5 miles out from camp, so simple calculations tell us that we should get there in 1:15 averaging 4 mph. If we have set our watch to 12:00 as we timed out at the start of the ride, a simple glance will tell us if we are going too fast or slow when we get to the point A marker.



Photo by Jim Edmondson.

POINTS	DISTANCE	TTL DIST	TIME
Camp - A	5.0 mi	5.0 mi	1:15

Point B is 3.6 miles farther, and looking at our time chart, we see it should take us 54 minutes to go from A to B. Adding those two times together, we discover that ideally we should reach B at 2:09 on our watches (1:15 + 0:54).

POINTS	DISTANCE	TTL DIST	TIME
Camp - A	5.0 mi	5.0 mi	1:15
A - B	3.6 mi	8.6 mi	2:09

We see from the map that Point C is 4.8 miles farther, so we can calculate we should get there around 1:12 after Point B or at 3:21 on our watch. However, we notice on

the map we have a P&R between Point B and Point C. This will add 15 minutes on our time, so we need to add in 15 minutes to our cumulative elapsed time. Now we see we should actually get to Point C at 3:36 on our watch.

POINTS	DISTANCE	TTL DIST	TIME
Camp - A	5.0 mi	5.0 mi	1:15
A - B	3.6 mi	8.6 mi	2:09
B - P&R - C	4.8 mi	13.4 mi	3:21 + :15 = 3:36

Point D is 2.2 miles farther along the trail. It should take us 33 minutes to go from Point C to Point D. Our watches should read 4:09 at Point D, if we are pacing our horses correctly.

POINTS	DISTANCE	TTL DIST	TIME
Camp - A	5.0 mi	5.0 mi	1:15
A - B	3.6 mi	8.6 mi	2:09
B - P&R - C	4.8 mi	13.4 mi	3:21 + :15 = 3:36
C - D	2.2 mi	15.6 mi	4:09

The next mileage point on our map is a forward motion marker. Every NATRC ride has one of these, and it signifies the number of miles you are from camp. Typically, this is 2 miles for Open, CP and Novice and 1 mile for LeD. On our sample ride, it is 2 miles and means we have covered 18 of the 20 miles of the course and we should get there at 4:45... Oops, don't forget to add another 15 minutes for the second P&R along the trail! Now we see that we should be at the 2-mile marker at 5:00 on our watches. If you are too early, this is the place to get off and kill some time with your horse. Once you pass the forward motion marker, you CANNOT stop, but must maintain "forward motion". The forward motion marker is the last place to double check your time/speed and adjust your pace.

POINTS	DISTANCE	TTL DIST	TIME
Camp - A	5.0 mi	5.0 mi	1:15
A - B	3.6 mi	8.6 mi	2:09
B - P&R - C	4.8 mi	13.4 mi	3:21 + :15 = 3:36
C - D	2.2 mi	15.6 mi	4:09
D - P&R - 2-mi	2.4 mi	18.0 mi	4:45 + :15 = 5:00

If we maintain 4 mph, it should take us about 30 minutes to cover the last 2 miles back to camp. This would put us over the finish line at 5:30, exactly in the middle of our allowed time window of 5:15 - 5:45.

POINTS	DISTANCE	TTL DIST	TIME
Camp - A	5.0 mi	5.0 mi	1:15
A - B	3.6 mi	8.6 mi	2:09
B - P&R - C	4.8 mi	13.4 mi	3:21 + :15 = 3:36
C - D	2.2 mi	15.6 mi	4:09
D - P&R - 2-mi	2.4 mi	18.0 mi	4:45 + :15 = 5:00
2-mi - Camp	2.0 mi	20.0 mi	5:30

Congratulations! You have just done your first NATRC ride on paper.

After discussion of the map, management will let you know what time the ride will start the next morning and where the start is located. Most of the time, management has the Open riders (the group that has the fastest pace) start first, followed by CP and then Novice. The LeD riders usually have their briefing, check-in and start after the other divisions. The trail master has selected trails and worked out the timing to minimize congestion on the trail and minimize Open competitors overtaking the other divisions.

Within the divisions, riders may start in whatever order they choose. Some like to ride up front, others to bring up the rear. Usually, a rider times out every 30 seconds.

The veterinary judge will give the P&R hold criteria. A “hold” of “17” and a “go” of “16” means that if one or both of a horse’s P&R readings is 17 or more, the horse must remain another 10 minutes to recover. A 16 or less for both means the team may proceed down the trail. “16-go/ 17-hold” is standard for the LeD.

Post Briefing Meetings

For the benefit of the competitors new to our sport, management may hold a separate meeting usually after the briefing to answer questions on any aspect of CTR competition, not just the trail briefing. This meeting allows for quick one-on-one interaction.

Various volunteer groups, such as the P&R teams and the safety riders, may hold side meetings not involving competitors to coordinate their activities for ride day.

Recap

The Ride Briefing

- ☐ Pay attention
- ☐ Make notations on your map
- ☐ Double check or figure point-to-point times
- ☐ Ask questions about anything you don’t understand



High Mileage Horse – 20,780 Competition Miles
Elmer Bandit (Half-Arabian) – Rider, Mary Anna Wood
Photo by Ron Osborn

THE HORSE'S SCORECARD

NATRC veterinary judges, who are licensed veterinarians, use the following criteria and point values to judge horses: condition - 40 points, soundness - 45, and trail ability and manners - 15. All horses start out with 100 points. See the front and back of the sample scorecard on the following pages.

Your copy of your horse's scorecard (and your horsemanship scorecard) is a valuable learning and training resource. You receive these scorecards after the ride awards ceremony.

A veterinary judge examines your horse at many points during a competitive trail ride. The judge objectively measures the overall physical fitness of your horse for the competition and evaluates how s/he holds up as an athlete over the course of the weekend. The veterinarian judges every horse on the same things, the same way, using the same system of scoring.

The veterinary judge typically conducts a preliminary examination on the Friday afternoon before the start of the ride on Saturday morning. The veterinarian's secretary records the findings. The judge determines the baseline values on MM (mucous membranes), CRT (capillary refill time), JR (jugular refill), ST (skin tenting), GS (gut sounds), MT (muscle tone), and MAW (movement/attitude/willingness), listens to the heart, lungs and gut sounds, and notes blemishes and scars that could potentially interfere with function or become inflamed due to the rigors of the ride. For a lameness evaluation, the veterinary judge then asks you to trot your horse out, circle in each direction and trot back.

The judge conducts a similar thorough exam at the end of the ride to determine the effects of the ride on the horse. As noted in the section on NATRC ride structure, the rides are a measured distance within a window of time. All things being equal, the veterinary judge determines which horse handles the stress of the ride the best.

HORSE SCORECARD

NORTH AMERICAN TRAIL

Condition 40 Points													
			Out	Score	Out	Score	Out	Score	Out	Score	Out	Score	
Check In P & R	P												
	R												
Mucous Membranes MM			Check In		MM				MM				
Capillary Refill Time CRT					CRT				CRT				
Jugular Refill JR					JR				JR				
Skin Tenting ST					ST				ST				
Gut Sounds GS					GS				GS				
Muscle Tone MT					MT				MT				
Movement, Attitude, Willingness MAW					MAW				MAW				
Soundness 45 Points			Check In										
Lameness L					L				L				
Way of Going WoG					WoG				WoG				
Withers Back Loins Girth WBLG					WBLG				WBLG				
Sores Plaques Rubs SPR					SPR				SPR				
Legs Interference Wounds Scalping Pain Tendons Ligaments			Left Front		LF				LF				
			Right Front		RF				RF				
			Left Hind		LH				LH				
			Right Hind		RH				RH				
Trail Ability and Manners 15 Points <small>Includes, but not limited to, disposition, response to rider, kicking, head tossing, prancing, standing for examination and mount, buddying, trail wise, etc.</small>			Check In										
Rider #		Horse Name						Breed		Age		Ride Name	
		Rider Name						Vet Judge(s)					
		DO-1 DO-2						TYPE: AA A B1 B2 DIV: Open CP Nov CLASS: Hwt Lwt Jr Hsp Judge(s)					

Judges: VERIFY the accuracy of DO-1, DO-2, and appropriate TYPE, DIV and CLASS | Competitor:

RAIL RIDE CONFERENCE



2016 Revision

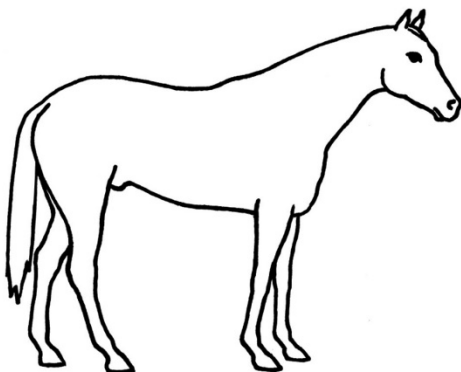
10/15/20

								CRI		CRI		Condition 40 Points
Score	Out	Score	Out	Score	Out	Score		Pulse	Score	Pulse	Score	
								1)		1)		
								2)		2)		
		MM				MM		Final Check				Soundness 45 Points
		CRT				CRT						
		JR				JR						
		ST				ST						
		GS				GS						
		MT				MT						
		MAW				MAW						
		L				L		Final Check				Trail A&M 15 Points
		WoG				WoG						
		WBLG				WBLG						
		SPR				SPR						
		LF				LF						
		RF				RF						
		LH				LH						
		RH				RH						
								Final Check				Subtotal
												Penalty Points
ne		Date		Region		Penalty Point Explanation						SCORE
e(s)												PLACE
ge(s)												

titors: REVIEW ADDITION AND REPORT ERRORS TO MANAGEMENT

SWEEPSTAKES

☐



Scoring Guide

HORSE SCORE 2016 Revision

Point assignment is at the discretion of the judge.
Breaking Ties: Refer to the tie-breaking rules.
Missed exam or observation deduct -1 from total score.

SOUNDNESS

Lameness Grades

Questionable Soundness: (Not recommended)

Grade 1: Lameness is difficult to observe consistently apparent regardless of circumstances (e.g. under saddle, circling, inclines, hard surfaces, etc.)

Grade 2: Lameness is difficult to observe when trotting in a straight line, but consistently apparent under certain circumstances (e.g. weight inclines, hard surfaces, etc.)

Grade 3: Lameness is consistently observable under all circumstances. Do not allow to compete. A horse observed during ride should be observed at final check. Completion of ride granted at the discretion of the judge with a grade of 3 or worse.

Grade 4: Lameness is obvious at a walk.

Grade 5: Lameness produces minimal or no motion and/or at rest, or a complete inability to move.

Legs Heat - each leg Pain - each leg
Slight -1 -2
Moderate -2 -3
Severe -4 or pull -5

Fill Slight 0 to -1 "Fill" reference
Moderate -1 to -2 may occur
Severe -2 to -3

WBLG Withers, Back, Loins, Girth
Discomfort or pain to palpation: i.e., R loin, L loin, R back, L back
Slight -1
Moderate -2
Severe -3 or pull

SPR Sores, Plaques, Rubs at girth, marks are also scored using this system
Slight -1
Moderate -2
Severe -4 or more

WoG Way of Going - Gait, length of stride, interfering, coordination, winging

Windpuffs (synovial swelling of joint) do not cause heat, pain, or lameness

CONDITION 40 Points

GS (Gut Sounds)		MT (Muscle Tone)	
Strong to Slight	0	Normal	0
Prolonged	-1 to -2	Cool / Clammy	-2
Silence	-4 or Pull	Cold / Trembling	-4
(Pull horse only if other criteria corroborate)		Rigid / Spastic	During Ride: Pull End of Ride: -5

CRT (Cap Refill)		JR (Jug Refill)		ST (Skin Tenting)	
(Seconds)		(Seconds)		(Seconds)	
0 to 1	Normal	0 to 1	Normal	0 to 1	Normal
2	Mild	2 to 3	Mild	2 to 3	Mild
3	Severe	4 to 6	Severe	4 to 6	Severe
4 & up	Pull	7 & up	Pull	7 & up	Pull

Scoring CRT, JR, & ST

Slight Change (1 degree)	0 to -1
Moderate Change (2 degrees)	-1 to -2
Severe Change (3 degrees)	-2 to -3

MM (Oral Mucous Membranes)		MAW (Movement, Attitude, Willingness)	
Normal / Moist	0	5	Bold, animated, attentive
Injected / Tacky	-1	4	Attentive, good mover, no animation
Pale / Dry	-2	3	Slow mover, but willing & attentive
Dark / Toxic	Pull	2	Showing a great deal of fatigue, not very willing to trot out
		1	Refuses to trot out on own
		MAW: -1 per degree the horse deteriorates	

Pulse: Base = 12 (48 bpm)		Respiration: Base = 9 (36 bpm)	
Point deduction: -1 per each beat over base		Point deduction:	
13	-1	1 to 9	0
14	-2	10, 11, 12, 13	-1
15	-3	14, 15, 16, 17	-2
16	-4	18, 19, 20, 21	-3
17	-5	22, 23, 24, 25	-4
		25+	-5

Hold criteria is at the discretion of the veterinary judge.

CRI: Refer to current protocol and scoring

Colic, Tie-Up, Thumps: Pull - Recommend Immediate Medical Attention

idelines



ORECARD
vision

cretion of the veterinary judge.
o current Judge's Manual.
1 more than the worst performing horse.

SS 45 Points

ommended) -1 to -2
serve and is not
circumstance -3 to -5
, hard surfaces, etc.)

serve at a walk or
consistently apparent
eight carrying, circling, -6 to -10

observable at a trot PULL
w to start the day! or
l be pulled. COMPLETION
n Only may be ONLY &
e with card scored. -11 to -15

walk. PULL
nal weight-bearing PULL
te inability to move.

- each leg
-2
-3
-5 or pull

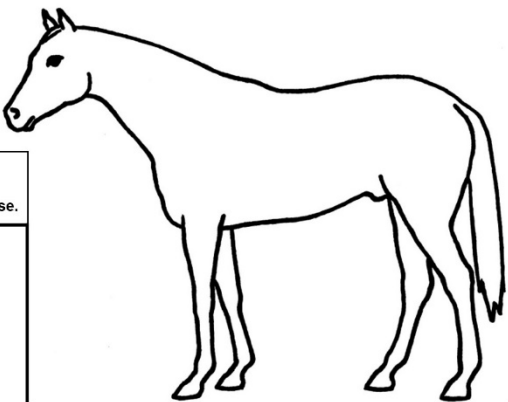
refers to edema of the distal limb that
occur post-exercise.

1
on. Score each side of horse separately;
back etc.

rth, cinch, mouth, etc. Interference
this scale.

1 of stride, choppy, stumbling, forging,
ging, etc.

if joints or tendon sheaths that do
ameness) are not penalized.



TRAIL ABILITY / MANNERS 15 Points

Obvious kick or bite at judge, rider or handler -5 to -10
Fractious, Unruly, Dangerous DISQUALIFY

Exams, Mounts:	Responsiveness:
Stands for exam, mount 0	Attentive to trail and rider 0
Moves 1-2 steps or turns -1	Mild disobedience -1
Walks off -2	Moderate disobedience -2
	Severe disobedience -3

Maneuvering Trail/Obstacles:	Behavior Vices*:
Adequate to excellent skill 0	Mild -1
Difficulty and/or slight resistance -1	Moderate -2
Moderate difficulty or resistance -2	Severe -3
Unable to do in allotted time -3	*Buddying, head tossing, shying, calling, etc.

MINIMUM STANDARDS FOR VET JUDGING

1. Two on-trail metabolic evaluations per day
2. One on-trail soundness evaluation per day
3. One evaluation of surface factors per day
4. Second and subsequent day soundness check prior to start
5. Obstacles: Safe? Appropriate? Affect flow of ride?

Considerations:
1. Use CRI as defined, scored & administered by CRI guidelines
2. End of day soundness exam at trailer if appropriate

PULL CODES

Strike a diagonal line across the face of the card. Write the words
"PULL" and one of the following pull codes:

Lameness: Any degree of lameness
Metabolic: Non-recovery, colic, thumps, tie-up, etc.
Surface Factors: Wounds, sore backs, rubs, etc.
Rider Option: Rider illness, injury, fatigue; weather, etc.
Disqualification: Rule violations, dangerous horse, etc.

Condition - 40 Points

*Contributed by Mike Peralez, DVM
Veterinary Judge, Region 2*

A veterinarian judges condition, or stamina of a horse, by recognizing the signs of fatigue and then scoring the varying degrees on each horse. The veterinarian evaluates condition before, during, and after the ride. For a proper comparison, the pre-ride veterinary exam provides a baseline for the judge to consult during the ride.

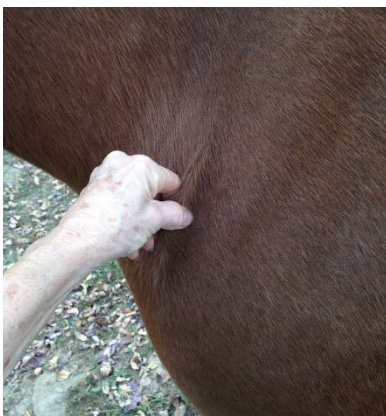
Several factors contribute to the horse's ability to do the task we ask him/her to do. To reach a competition level, you train and condition the horse's cardiovascular system with increasing levels of exercise for weeks or months. As the conditioning program progresses, the increased workload requires that more oxygen is delivered to the muscles.

If the conditioning program proceeds appropriately, the heart becomes more efficient at meeting those needs as the horse becomes more fit. During the competition, the heart continually pumps oxygen-carrying blood to the muscles so they can perform the work needed to cover the course in the allotted time.

Likewise, the respiratory system also adapts to training. For instance, oxygen uptake significantly improves as fitness improves. Adequate ventilation overall, which also helps control the body's blood gas status, becomes more efficient.

Hydration Criteria and Fatigue

The veterinary judge evaluates dehydration (water loss through sweat, panting, urine and feces), a major detriment to trail horses, by a variety of methods.



Skin tenting. Photo by Bev Roberts.

A pinched up fold of skin (skin tenting or ST) at the point of the shoulder normally goes down immediately when released. The veterinary secretary records the number representing the baseline skin tenting return time at the preliminary exam for each individual horse. If the return time increases during the ride, the horse is feeling the stress more. As the horse becomes more dehydrated, the fold remains longer, sometimes several

seconds. Zero to 1 second is normal; 2-3 indicates mild dehydration; 4-6 is severe. The veterinary judge, if the rider hasn't already done so, will pull the horse from competition if the time is 7 or more. In general, slight changes from normal are scored (0 to -1), moderate changes (-1 to -2), and severe changes (-2 to -3).

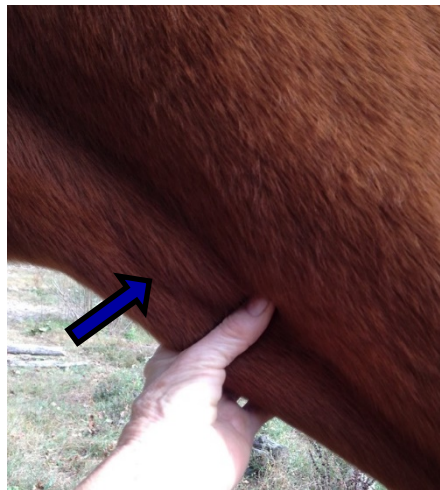
Another indicator of hydration is capillary refill time (CRT), the time required for gum color to return after the veterinary judge presses on the gums with the thumb. Normal time is 1 or 2 seconds, and in stressed horses, it may be several seconds or more. Guidelines on the back of the scorecard list the scoring bases for these criteria. Zero to 1 (second) is normal; 2 seconds is a mild delay; 3 is a severe delay. The horse will be pulled if the CRT is 4 and up.

The veterinary judge measures jugular fill time by pressing on the jugular groove in the neck and watching how long it takes the jugular vein to fill up towards the jaw. It typically fills in about 2 seconds. That fill time increases as the horse becomes dehydrated. Scores for changes from the baseline for each horse are: slight (0 to -1), moderate (-1 to -2), severe change (-2 to -3).

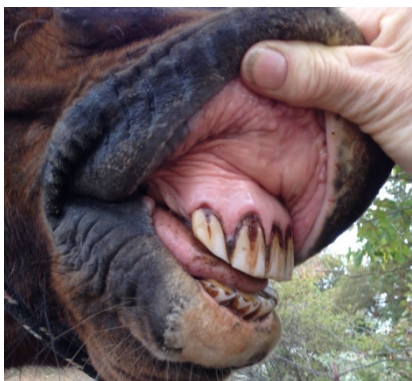
The gums, the inside of the eyelids, and the vulva on a mare, which are all mucous membranes (MM on the scorecard), are good indicators of how dehydration affects the blood circulation and the perfusion of the tissues with oxygen. Normal gums are moist and pink, varying in degree with each horse. As the horse becomes fatigued or dehydrated (causing the blood to thicken), the gums may



A pinch on the gum for capillary refill time. Photo by Bev Roberts.



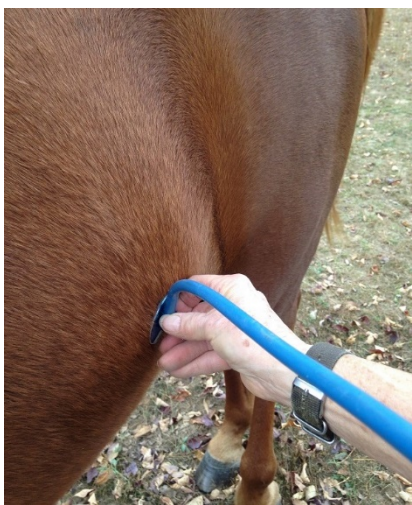
Jugular fill. Photo by Bev Roberts.



Pink and moist gums.
Photo by Bev Roberts.

dry out, and the color becomes pale or blanched. In more severe cases, the color may turn muddy (jaundiced), blue (cyanotic, lacking oxygen), or injected (overfilled with blood, poor circulation). On the scorecard for MM, (-0) indicates normal/moist; (-1) injected/tacky; (-2) pale/dry. The veterinary judge will pull any horse that has dark mucous membranes with a toxic appearance. An increase in numbers from the baseline during the ride reflects stress on the horse.

By monitoring the horse's appetite and desire to drink, the veterinary judge can evaluate the digestive system. Peristalsis (a series of contractions creating a wavelike movement that pushes the



Checking one of four quadrants for
gut sounds.
Photo by Bev Roberts.

contents of the digestive track) normally decreases during exercise but resumes quickly with rest. A fatigued horse shunts blood away from the gut to other areas of the body, especially the muscles. This results in reduced gut motility and gut sounds (GS). A horse's intestines should make sounds of nice gurgling contractions. The judge notes increases in time between sounds and later scores them. Absent gut sounds may indicate fatigue or impending colic.

Muscle tone (MT) is a measure of condition, electrolyte balance, and fatigue. In a fatigued horse, the muscles might feel cool or clammy, or even cold or trembling. At check-in, the judge may note a one (1) for normal and note changes from that during the ride with appropriate numbers and scores.

Fatigue can also be judged by changes in the horse's **movement**: changes in the gait from the normal springy long strides to fatigued, short choppy steps; **attitude**: alertness of the eyes, ears,

facial expressions, actions such as nickering, interest in surroundings, etc., and by decreased **willingness** to go on. Whereas numbers for the other parameters start low and go high as the horse deteriorates, MAW (movement, attitude and willingness) scores start at a 5 (bold, animated, attentive) and go down; 4 (attentive, good mover, no animation), 3 (slow mover but willing and attentive), 2 (showing a great deal of fatigue; not very willing to move out), and 1 (reluctant to trot out). Change from baseline is the basis for scoring through the ride.

Other visible signs of fatigue include synchronous diaphragmatic flutter (thumps) seen as a rhythmic twitch in the flank in rhythm with the heartbeat (indicates serious metabolic problems), a change in the character of sweat from normal watery to thick, sticky, and strong smelling, to sweating even ceasing. Dry skin on a horse that should be sweating is a danger signal.

Judges may use additional factors for judging condition depending upon their own experience and observations. So that you can avoid competing an overly tired horse, pay close attention to the veterinary judge's comments about your horse's condition. Riders should learn to evaluate their own horses, especially when working at home on strenuous rides. Never stress your horse beyond these guidelines.

Pulse and Respiration Checks (P&Rs)

George Cardinet III, Bill Throgmorton and two other classmates from veterinary school started research at the first NATRC ride at Mt. Diablo in 1961 to test George's hypothesis that pulse and respiratory recovery rates were directly related to the horse's physical conditioning. Not only did they find good correlation, their results showed that 12 minutes gave the best correlation. That number was a nightmare to keep track of during competitions, and the 10-minute recovery became the standard allotted recovery period. Since then, as one of the measures of a horse's level of fitness, NATRC's procedure is to take 15-second readings of pulse and respiration (P&R) after a 10-minute rest period, record, and score them according to guidelines set by the Judges Committee.

Failure of a horse's pulse to recover can be due to not only inadequate conditioning, but also to musculoskeletal pain, dehydration, or other metabolic problems. In a well-conditioned horse, the pulse should return to a 15-second count of 12 (48 bpm; a "working" resting rate) or less following a 10-minute rest. Guidelines set by the judges committee require scoring -1 point for each beat over 12 at the 10-minute or "outgoing" P&R reading.



P&R team at work at the 2018 Pine Grove Giddy-up CTR, Arkansas.
Photo by LeeAnn Dreadfulwater.

Respiration is complex. The needs for oxygen uptake and heat dissipation are well known, but there are other anatomic and physiologic factors that play into respiratory rate recovery. Because of this complexity, respiration is not quite as reliable as an indicator of conditioning as is pulse recovery. Nevertheless, respiratory rate is important in determining our horses' response to the stress of the ride and the ability to continue down the trail. For these reasons, NATRC records and scores both pulse AND respiration.

Normal respiratory recovery is a 15-second count of six (6) breaths, which is 24 breaths/minute, or less. By guidelines set by the Judges Committee, point deductions start for counts above nine (9) at a rate of one (-1) point for every four (4) breaths. See the back of the horse scorecard for the points table.

High recovery rates with deep breathing (reflecting efforts to exchange oxygen and carbon dioxide) are indications of exhaustion or metabolic distress. Rapid, short, shallow breaths are an indication

of an overheated horse trying to blow off excess heat and are seen more often on hot, humid days. Horses dissipate heat by sweating - evaporative cooling; dogs dissipate heat by panting - rapid mouth breathing. A horse with a persistently elevated respiratory rate usually has built up excess heat and is trying to use his/her secondary, less efficient method of rapid breathing to dump some heat.

Pulse and respiration rates are taken at least two times each day at points of stress on the trail, sometimes at lunch and on arrival in camp. The total elapsed ride time allows 15 minutes for each P&R stop.



P&R lineup at the 2012 Cowboy Camp CTR in California.
Photo by Jamie Dieterich.

Judges and management may elect to take (but not score) incoming P&Rs. If time permits, a P&R team will take an incoming P&R at your request.

In addition to standard point deductions for pulse and respiration values, the veterinary judge sets "hold" criteria for the P&R checks. If the hold criteria are "16 - go", 17 - hold" for both pulse and respiration, this means that if the horse's pulse and respiration are 16 or below at the 10-minute check, s/he is free to proceed. If the values are 17 or greater, for the horse's safety, it is held for an additional 10 minutes and re-checked.

The first recovery P&R reading is scored, and an additional 5 points are deducted for the hold. If a horse has still not recovered at the end of a second 10-minute hold, which would be a total of 30 minutes at the P&R check, the horse will be pulled from the ride.

If the horse is held and then recovers satisfactorily to criteria, **the 10-minute hold time (or 20-minute hold time if two holds) is**

added to the rider's minimum and maximum total ride time and the rider **must** use those additional minutes. The last thing you want is to hurry a fatigued horse to make up time.

Most of the deviations from normal recoveries that we see on our rides are minor. However, the combination of several smaller metabolic changes make up, or drive, major deviations that can lead to pulling a horse or worse. Riders should be concerned not only about the P&R readings that translate to scores on the scorecard, but what those readings are saying about the metabolic status of the horse.

The LeD follows the same procedures but has only one P&R check, uses a standard "16-go/ 17-hold" for criteria, and follows a positive scoring system.

Cardiac Recovery Index (CRI)

Heart rate recovery is an important indicator of a horse's level of fitness. Kerry Ridgeway, DVM, NATRC and AERC Veterinary Judge, began using a cardiac recovery index at NATRC rides in the 1980's. The procedure used a paired heart rate, the first taken when the horse was presented for examination, and the second taken after a short trot-out. He compared data collected on horses in the rides with the usual fatigue parameters and found that "OK" horses fell under a



CRI trot – 125' both directions, non-stop.
Photo by Brandy Steele.

beautiful bell-shaped curve, and the definitely fatigued horses routinely fell outside the curve.

As a measure of the horse's ability to oxygenate tissues, veterinary judges have been using the CRI extensively since the 1980's in AERC endurance rides. An abnormal CRI is a recognized risk factor for failure to complete. The CRI has become a useful tool in other equine sports as well. The CRI is a valuable tool in assessing just how well a horse is handling the day's work and is in use at NATRC rides.

A "resting pulse" is taken for a 15-second count. The horse is asked to trot out 125 feet and return. The pulse taker notes the time at the exact beginning of the trot. At exactly 1 minute, a "recovery pulse" is taken. The importance of the initial (baseline pulse) rate as well as the increase to the second pulse is consistently emphasized in articles and discussions of the cardiac recovery index. The higher the initial count and the bigger the spread, the more significant the CRI is. The CRI is scored according to guidelines from the Judges Committee.

Soundness – 45 Points

The veterinarian judges lameness by examining and by watching the horse move. Obvious faults of soundness include:

- heat and swelling in the legs and joints
- saddle and girth sores
- injuries caused from interference (gait fault that causes the horse to strike any part of the inside limb with the inside of the foot or shoe of the opposite foot)
- overreaching (hind foot stepping on heel of front foot on same side)
- sore back muscles
- chafed lips from the bit or other tack injuries
- certain defects of vision
- blemishes and wounds that develop during the ride

The vet judges soundness by performing a physical examination and by observing the horse move.

The judge evaluates each horse at the preliminary exam to determine a baseline, the horse's physical condition before starting the ride. S/he notes such things as old interference marks on the legs (left front [LF], right front [RF], etc.) in case they are freshened during the ride. Also noted is any swelling, fill, painful or hot areas. Only

blemishes that might interfere with function or become worse during the ride need noting.

You will be asked to trot your horse straight out from the veterinary judge, do one or two circles each direction, and then trot straight back. Think of a lollipop shape for doing this. When trotting out and back, position your horse, not yourself, in the judge's line of sight.



Trotting a circle at the 2012 Mt. Diablo CTR, California. Photo by Jamie Dieterich.

In general, the points deducted on a horse are relative to changes observed during the course of the ride, from check-in to check-out, and are at the judge's discretion. However, for a horse that checks in with a fault, such as a mild lameness, the judge(s) may deduct points relative to horses without faults even though the fault does not worsen during the ride. This is the opinion of the judges. NATRC judges evaluate lameness according to guidelines adopted by the American Association of Equine Practitioners (AAEP). Scoring guidelines are on the back of the scorecard.

"Way of going" is the judge's opinion of how your horse moves as a trail horse. Ideally, we are looking for a sure-footed, free moving, long gait that is easy to ride yet energy efficient for the horse. Excessively high action, too low action, chronic stumbling, short and choppy steps, or sluggish, inconsistent strides are faulted. Gait defects that are detrimental to efficient travel are:

- winging (caused by toe-out conformation)
- paddling (caused by toe-in conformation)
- forging (toe of the hind foot strikes the bottom of the front foot on the same side during the trot)
- interfering (hoof hitting the opposite leg)
- scalping (toe of the front foot hits the hairline at the coronary band or above on the hind foot on the same side)

Way of going is evaluated in-hand and under saddle on the trail. Noted at the pre-ride evaluation, during and after the ride, are

muscle soreness, pain, or rubs in the areas of the withers, back and loins (WBL). Also noted are such things as tack rubs on the girth, mouth, chin, or crupper area.

While the choice of sole protection during the ride is up to you, the rider, judges may, and are encouraged to, check for rubs or chafes at the end of a day's ride by asking riders to remove hoof boots that have parts that go above the coronary band or over the heels. Waiting for you to remove the boots may be time-consuming. Unless you can quickly remove them, you should step aside and allow the next horse to start its exam. At some point during or after the second horse's exam, the judge can check your horse's feet, now unbooted. The veterinary judge will determine what procedure works best for this quick check.

The veterinary judge usually examines horses at any trot-out exam with the same footwear as used on the trail. If a horse is ridden shod, s/he is trotted out in shoes; if ridden with pads, trotted out in pads; if ridden in boots, trotted out in boots; if ridden truly barefoot (without sole protection), trotted out barefoot. If a horse does part of the ride without sole protection and part of the ride with boots, the method used for the trot out would be a judgment call that the judge makes. However, if a rider chooses to check in or check out without boots and the horse trots out lame in front of the veterinary judge, that rider may not return later with their horse with boots, and ask for a "second chance" soundness exam.

By examining all horses the same way at the same places on the trail and again at the final examination after the end of the ride, the veterinary judge evaluates how well the horses handled the stress of the ride. The final examination is like the preliminary one.

Trail Ability and Manners – 15 Points

A good trail horse should be, above all, safe! Your horse should travel without excess direction from you, should allow you to relax, and should maneuver obstacles with skill and willingness.

Judging manners as to the horse's suitability as a trail horse is subjective. The horse should stand still to allow the rider to mount safely under a variety of trail conditions. Spooky horses that repeatedly shy on the trail are unsafe and not pleasurable to ride. Head tossing, fighting the bit, refusing obstacles, chronic whinnying, charging or rushing obstacles, crowding other horses, poor tying behavior, pawing, buddying, being barn sour, kicking, and biting are all vices that cause a loss of points on the scorecard.

*A good trail
horse should
be, above
all, safe!*

Your horse should readily respond to your aids and cues, travel in-hand willingly and safely, and behave well for examination of feet, legs, eyes, teeth, and gums. If a judge cannot examine a horse, the judge cannot fairly place the horse.

At judged obstacles during the ride, the judge looks at the degree of response the horses have to their riders. Responses range from maneuvering the obstacle with adequate to excellent skill, maneuvering with slight resistance, or refusing altogether.

A good trail horse needs many miles on the trail in both training and competitive situations. Many horses on their first few rides behave poorly, but with experience can become your ideal trail companion. You should not become discouraged after only a ride or two. Patience and experience are great teachers. It often takes more rides for horses to “get it.”



Quietly negotiating a tricky spot on the trail at the 2019 Navajo Lake CTR in New Mexico.

Photo by Bill Wingle.

Recap

The Horse's Scorecard – Review

- ☐ Condition criteria include P&Rs, CRI, indicators of hydration; movement, attitude & willingness
- ☐ Soundness judging includes lameness, sores or injuries that happened during the ride, and way of going
- ☐ Trail ability/manners scores reflect the horse's willingness and ability to work with his rider

THE RIDER'S SCORECARD

Horsemanship judging also follows specific categories. Although more subjective than veterinary judging, much of the judging is standardized. However, judges as individuals often have different opinions about the relative importance of the numerous aspects of horsemanship. This is partly because of having observed different kinds of unsafe practices that result in accidents or riding methods that lead to poor performances of the horse and others that lead to superior performances. Thus, there is variation within the standards of NATRC.

The foundation of good trail horsemanship consists of caring for your horse, safety and courtesy.

The horsemanship (rider's) scorecard has three sections. The first section includes grooming, in-hand presentation, and tack and equipment, and contains 20 points; the second, trail equitation, is 50 points; the third includes trail care, trail safety and courtesy, and stabling and makes up the remaining 30 points of the score. As with the horse's scorecard, each rider begins with 100 points.

See the scorecard on the following pages.

Our goal in this sport is to go from A to Z in the safest way possible with a horse that is still able to carry on tomorrow. Good horsemanship helps us achieve that goal.

A clean, well-cared for horse presents a pretty picture at check-in at the 2019 Cowboy Camp CTR in California. Photo by Kimberly Naugle.



HORSEMANSHIP SCORECARD

NORTH AMERICAN 1

TACK & EQUIPMENT: Cleanliness, Proper Fit, Adjustment, Repair, Trail Gear Placement & Security		GROOMING: Brushing, Dirt, Sweat Marks, External Parasites, Feet & Shoeing		IN-HAND: Safety, T Others, F	
TRAIL EQUITATION: Ascending, Descending, & Level Terrain: Balance & Lightness of Seat, Cues, Body & Leg Position, Control, Hands & Aids to Horse; Mounting & Dismounting; Obstacles: Control, Cues, Timing, Form; Teamwork (TW)					
TRAIL SAFETY & COURTESY: Crowding; Riding in a Bunch; Response to Directions; Potential Danger to Horse, Self & Others; Consideration of Others		STABLING: Horse Care, Safety, Feed & Water Containe Quick Release Knot & Security), Blanket, Te Choice of Parking Location			
Rider #	Horse Name		Breed	Age	Ride Name
	Rider Name				Vet Judge(s)
	DO-1 DO-2 TYPE: AA A B1 B2 DIV: Open CP Nov CLASS: Hwt Lwt Jr				Hsp Judge(s)

Judges: VERIFY the accuracy of DO-1, DO-2, and appropriate TYPE, DIV and CLASS

10/15/20

ASS | Competitors: REVIEW ADDITION AND REPORT ERRORS TO MANAGEMENT

Grooming

Present a clean, well-brushed horse at the preliminary check-in. It's good horsemanship, and it makes a good impression. A well-groomed horse is also probably a well-inspected horse. Thorough grooming is a good way to check for new injuries, soreness, swelling, ticks, etc. In addition, just as we wouldn't like to start out on a hike with a rock in our shoe, a horse shouldn't start out a long competitive ride with dirt under the tack areas or a rock caught in a foot.

The judge will check for such things as dirt or dried sweat on the horse's body, feet packed with dirt, nostrils caked with dirt, bot eggs, lice, well-attached ticks, overgrown hooves, or badly fitting shoes. Insect repellent is at your discretion, but apply lightly enough that it doesn't result in "gunk."

Grooming standards at the end of the ride are varied. At the minimum, the horse should look cared for and not look like s/he was "rode hard and put away wet." Pick the feet clean, clean between the legs, and clean on the face and

around the eyes. If it is a hot day and you have time, your horse will probably appreciate a hosing off or sponging followed by a good brushing. If it is cooler, your horse will more likely benefit from hand walking and a cooler or sheet to help him dry off than from a chilling hosing off. Again, brushing goes a long way towards making the horse look and feel better. Ask the judges at the ride briefing the night before what level of cleanliness they expect for the checkout examination.



The horsemanship judge looks for dirt, dried sweat, and so on, by feel as well as sight, Pine Grove Giddy-up CTR, Arkansas.
Photo by Brandy Steele.

In-Hand Presentation

When presenting your horse, control of the horse and safety for the judges who are moving about and touching your horse are your primary concerns. Be sure to keep your horse a safe distance from the secretaries or anyone else seated nearby in a vulnerable

position. Keep your horse's attention from wandering; it should not be eating or gazing off into the distance. Correct problem behavior instantly as long as it does not jeopardize the safety of others.

Position your horse as directed by the veterinary judge. Stand on the same side of the horse as the veterinary judge, beside the horse's head, not directly in front of it, and facing toward the tail. When the judge moves to the other side of your horse, move yourself to the other side switching hands on the lead rope accordingly.

By staying with the judge, if your horse kicks or acts up, you can pull the head towards you; this moves the hindquarters away from



Control and stay on the same side of your horse as the judge moves around him, 2018 Bell Cow CTR, Oklahoma. Photo by Brandy Steele.

the veterinarian. To allow the veterinarian ample space for examining the eyes, nose, and mouth, you can briefly back up, extending your arm, or move to the other side. If the horse wants to move away from the veterinary judge, step to the other side to stop the horse's movement. Alternatively, you can reach around the front of the horse with the hand holding the extra lead rope and hold a whip or crop on the opposite side to stop the movement.

For safety, keep both hands on the lead rope at all times, especially for the close, hands-on veterinary inspection. One hand should be 6" – 12" below the snap (or stud chain) for ready control, and the other

hand should hold the remainder of the rope.

If you coil the excess lead rope in circles and your horse suddenly pulls back, the coil can tighten around your hand almost instantaneously and cause a severe injury. A safer way to hold the excess rope is to fold it into a figure eight. This allows the horse to pull the rope completely from your hand or allows you to feed the rope out between your thumb and fingers.

Gripping the halter's cheek strap with the hand that holds the remainder of the rope is only acceptable if it becomes necessary for control and the fingers are not in a position to get trapped (such as behind the strap or in the hardware).

The veterinary judge usually wants to see a trot-out, a circle in both directions, and a trot-back. For safety and best communication with the horse during the trot-out, lead at the side of your horse's head. The hand next to your horse should be approximately 18" from the halter ring to allow the horse enough room to move its head freely. The veterinary judge needs to see freedom of motion of the head to evaluate the gait and lameness. Too much slack could mean lack of ready control. However, less slack might be necessary to control an anxious horse. Keep a safe distance so your horse won't step on your feet. Don't let the horse crowd you. Lead from whichever side you choose. Trot straight out from and straight back toward the veterinary judge unless instructed otherwise.

For the circular portion of the soundness check, you can circle in hand or longe your horse. It is your choice.

For in-hand circles, it is easier to lead your horse at the trot with you on the inside of the circle.

For example, when circling clockwise, you will be on the horse's off side with your left hand holding the



This young competitor chose the difficult option of leading her horse in the circling portion of the trotting presentation without changing sides. 2018 Pine Grove Giddy-up CTR, Arkansas. Photo by Brandy Steele.

portion of the lead rope closest to your horse's head. Very few riders can run fast enough on the outside of the circle to be a safe distance from the horse's feet and to show the horse well. One way to circle in hand is to follow these steps.

- Trot out on the near side of your horse (horse to your right and your right hand closest to the head).
- When you reach the far side of the area to circle, keep trotting and bear left to form and trot a counterclockwise circle.

- Stop at the point on the circle furthest from the judges, turn toward your horse and with your right hand near your horse's eye, push your horse away from you 180 degrees (essentially turning her/him on the haunches) so you are facing the opposite direction. Stop.
- Carefully move to the other side of the horse, switching hands on the lead rope, so you end up facing the same direction as the horse and ready to do your clockwise circle.
- Trot the circle and when you approach the point where you had turned your horse around and you had switched sides, bear right and trot your horse back to the judge making sure your horse is in the veterinarian's line of sight.
- Stop about 6' before your reach the judge.
- This will take practice if your horse is not used to being led from the "off-side".

If you feel your horse getting frisky, it is okay to stop and take a deep breath or even back your horse up to get her/his attention before trotting again. Good places to do this are after you trot out and before you start a circle, where you turn around, and before you start back toward the veterinary judge. Even if your teammate isn't feeling frisky, it is good to practice at home with the stop, back, stand, and go (or combinations of them) so that your horse does not anticipate your next move and stays alert for your in-hand presentation.

For longeing circles, make sure you are well prepared before approaching the judges. Have your longe line ready so you don't have to take excess time for preparation. If there are 60 horses to check and each rider takes an extra minute to prepare, that makes an extra hour for check-in.

If you do use a standard length line, remember to practice how to hold the extra line so that it isn't dangling at your feet for you to get tangled up in. One method, although controversial, is to hold the extra line in coils, rather than folded, in the off hand in order to readily play out the loops one at a time and to bring the line back quickly. If you use this technique, you must demonstrate skill in handling your horse and the line in such a way that the line won't tighten around your fingers in the case when your horse suddenly pulls away. Ideally, become proficient at playing out folds instead of coils.

It's easier for some riders to have a non-standard length longe line. For them, a standard one becomes too cumbersome for the presentation. They may cut a standard sized longe line down (or make a line themselves) to the size they are comfortable using for in-hand presentations.

If you use a standard 9' or 10' lead rope, you can walk a small circle as the horse is moving so the horse makes a reasonable size circle. It is sort of like "riding" from the ground. The trot circle should be at least 25 feet in diameter.

Most horsemanship judges will deduct points if you do not keep two hands on the longe line, whatever the length. An overhand knot (single knot) or a stop of some kind at the end of a short longe line adds a measure of safety, but do not allow the knot to dangle lest it swings around to catch the rope above the hand. Listen carefully to the judge's instructions as to how many circles to make. After trotting away from the judge, execute at least one full circle starting at the point farthest from the judge. Stop the horse, and then circle him in the other direction. After you finish, walk toward the horse while collecting the longe line. Then, trot straight back to the judge.

Maintain control of your horse during the circling trot. Keep your horse's attention on you. When practicing at home, don't school your horse to always do a turn one way, then stop and go the other way; the judge might want to see something different. Your horse should be listening to whatever your directions are. For out and back turns involving a change in direction, turning the horse's head, neck and shoulders away from you, usually to the right, is considered safer. In the process of training your horse to turn away from you, you are forcing it to **respect your space**, and you are forcing yourself to **think** about where your horse is. It is acceptable for you to turn the horse around yourself, to the



Circle left, circle right, and return to the judge as these competitors did for the circle portion of the trotting presentation, 2015 Grasslands Gamble CTR, Texas.
Photos by Mike Collins.

left, if you stretch your arm to put the horse out to the side and thus avoid being crowded. The horsemanship judge may fault you if you turn your back to the horse in either direction.

It is permissible to use a whip or stud chain for control during the check-in/check-out procedure. Properly used, a whip is an extension of your arm. Jerking on a stud chain other than to immediately correct a behavior problem is not appropriate.

*For any activity involving interaction with the judges,
always listen to the judges' instructions.*

Fine Tuning the In-Hand Presentation

*Contributed by Nancy Smith Kasovich
Horsemanship Judge, Region 1*

The in-hand presentation is the formal introduction of the horse, by the rider, to the judges. All ensuing presentations, whether on the trail or in camp, will be compared with this initial examination. This is where the actual competition begins.

I expect a horse to approach the judges confidently, stand quietly in a straightforward position, and not move while the judges do a hands-on examination. When this is completed, the judges will ask for a trot away, circles in both directions, then a trot back. There are occasional variations in the pattern, but the "need to see" is the same. It is the rider's responsibility to choose a straight route from the veterinary judge to the circling area, keeping the horse beside but slightly away from the body. Horse and rider must move as a team and not try to outrun each other. Starts and stops should be steady, not abrupt.

Circles provide a wonderful opportunity to show your horse, so take your time and make it count. It is very important not to get in a hurry when starting to circle. No two circling areas are alike, so I suggest using a 16-foot longe rope and regulating the size of the circle according to the terrain. Pick a pivot spot to position yourself, then quietly walk the horse to the outside of the circle. The horse starts to walk the circle while you move back, feeding the amount of rope necessary for the desired circle. When you feel the horse is settled, raise the rope and take a step forward. As you stride forward, the horse strides off trotting at the end of the allotted rope, which you hold at the horse's muzzle level, or above. Move with the horse on the turns to avoid ever pulling the head toward you. When you lower the rope, the horse returns to walk until a slight tug signals a halt. The horse stops and stands straight in the circle while you walk over and reverse him. Then repeat the procedure. Never allow a horse to

reverse itself or stop and turn into you. It may be impressive to see a horse trot the circle then dart around and reverse without breaking stride. However, soon the circle gets smaller, the horse gets wiser, and you are no longer in complete control. The key word here is **control**.

Now walk over, collect your horse, casually walk a semi-circle, and evaluate your fresh, fit friend who is dying to make the trot-back memorable. It may be wise to stop and back him a step or two, do another half-circle, whatever it takes to be sure you have his attention. Then slowly start the jog back, building speed as you go in a straight line to the veterinary judge. The few seconds it takes to settle your horse before you trot back together can be vital. Soon a horse learns he isn't going to get back unless he contains himself.

It's much easier than you think to achieve this, and very basic. Time and patience are still the greatest tools we have. Never allow a horse to push, pull, or shove. Always use your hands on the horse in a steady manner. Finger manipulation on the neck and shoulder can move a horse away or toward you. Never use a stiff brush or curry comb on the area between the withers and the croup. Use a very soft body brush, damp sponge, towel, and your fingers. I never want anything associated with my hand to bring pain to my horse's body. Eventually your hand becomes a conduit of confidence between the two of you.

Time and patience are our greatest training tools.

To train a horse to longe, first teach the horse to walk a large circle, stop, and stand. Walk over, turn the horse, and repeat the process. When the horse can do this three to five times in each direction in a relaxed manner, move on to the trot. This may take 2 days or a month. At this point, you can use verbal commands and a longe whip. When the horse can walk, trot, stop, and stand calmly, pick up the pace and ask for more impulsion. As you give the trot command, stride forward lifting the rope forward and up. Soon the horse will stride off when the rope comes up. Rope down means stop. This is fun, a game. Soon the horse is watching. Hand up, slowly build up speed, hand comes halfway down, cut to a slow trot, hand is high and comes down fast, stop...the possibilities are endless. The horses love it. When they have learned this, they never forget it, so it is not necessary to longe them other than to check for soundness or get out the kinks prior to a winter ride.

I don't teach my horses to canter on the longe or work them on verbal commands (other than in the beginning as mentioned above).

Save cantering free-style, responding to verbal commands, etc., for the arena or round pen. In this way, an NATRC horse knows exactly what to expect when on the longe line. When a horse knows what to do and enjoys doing it, you have created a self-confident animal with presence as well as a horse to be proud of.

A good presentation at check-in is an excellent way for the competition to begin!

Special Needs of Physically Challenged Riders

Contributed by Doreen Portner

Past Horsemanship Judge, Regions 2 & 3

Many sports allow physically challenged individuals to participate. Horse sports are no exception. NATRC allows riders to compete as long as they are capable of controlling their animal so as not to endanger other competitors or volunteers, and as long as their participation does not hinder the flow of the ride.

The special assistance allowed is at the judge's discretion. The rider should not expect to be excused from any rules that pertain to all other riders especially where safety is concerned. Avoid misunderstandings by checking with the judge(s) and management before problems arise; preferably before starting competition.

Using a substitute handler for the in-hand trot at the veterinary exam is one example of an assistance request. The primary rider might have a leg or foot injury, a bad hip or similar problem that makes running a horse in-hand hazardous or very difficult.

Judges handle the in-hand trot in different ways. One way is for the rider to stand close to the horsemanship judge and evaluate the substitute handler; the judge then scores the rider's evaluation of all aspects of the trot-out. Another method is for the rider to do the longeing and the substitute handler to do the straight out-and-back trot. Thirdly, the rider demonstrates the procedure to the horsemanship judge by walking through it; the substitute handler then trots the horse for the actual veterinary exam.

Another problem area for disabled riders pertains to the rule stating that the rider has to provide total care of the horse. Clever riders figure out ways to feed and water their mounts. They carry their feed and water in carts. They avoid lifting heavy water buckets by pouring water into buckets firmly secured on the ground rather than into buckets on the side of the trailer. They handle feed the same way. Where there's a will, there's a way. If you need help, ask the judge(s) and management for permission.

A deaf rider can have a friend who knows American Sign Language also compete and act as an interpreter.

If it is impossible to saddle or unsaddle the horse alone, discuss the problem with the judge(s) and management to agree on the use of help or possible penalty points.

If needing assistance for a judged mount, expect some point deductions for the sake of the competition. However, the judge will not fault a rider for completing a good mount alone with the benefit of any form of terrain (a picnic table, log, rock, etc.).

Competitive riders tend to be people who do things, not make excuses why they can't. Most disabled riders are no different.

Recap

Grooming and In-hand Presentation

- ☐ Present a brushed horse free of dirt, sweat, debris, bots and ticks with hooves picked clean
- ☐ For safety, control your horse and position yourself on the same side the judge is working
- ☐ Keep both hands on the lead rope at all times
- ☐ Hold the lead about 12" from the snap for the hands-on exam
- ☐ Follow the judge's instructions for the trot choosing to circle by the method that works best for you and your horse
- ☐ Pre-arrange for a substitute handler if you are unable to physically trot your horse



One can always make time for camaraderie at CTRs as these gentlemen are doing at the 2018 Pine Grove Giddy-up, Arkansas. Photo by Brandy Steele.

Tack and Equipment

Proper fitting, clean, serviceable tack are the main concerns of the horsemanship judge. Always adjust tack to be functional.

If you ride with a loose girth, you might want to tighten it before doing a judged mount. You might also want to tighten it before going up or down a steep hill; remember to readjust it when the terrain levels out. Tightening the girth for hills is probably not necessary if you are using a breast collar and crupper. A crupper may be essential in keeping the saddle in place when descending steep hills.

The back cinch on a double-rigged Western saddle should be just slightly loose so you can slide your fingers under it. If it is hanging too loose, not only could it pick up brush, the horse could get a hind foot caught in it while kicking at a fly, crossing a log, or going down a steep hill.



Horse/rider team with properly adjusted, well-fitted tack at the 2019 Bayou Gulch CTR, Colorado.

Photo by Bill Wingle.

Breast collar fit is critical. If it is too loose, it doesn't hold the saddle in place and can get caught in brush; too tight and it can cut off breathing. The bottom of the V should be well below the thoracic inlet (where the trachea enters the chest cavity). The strap to the cinch on any breast collar should not have much slack, perhaps a finger width or two (walk your horse forward a few steps to see that the strap is neither too snug nor too loose when the horse moves). If the breast collar attaches to the

cinch, adjust the cinch from side to side to center the breast collar strap between your horse's front legs.

Usually, a bit adjusted to create one to three wrinkles in the corner of the mouth is all right. A fleshier horse will naturally have

more wrinkles than a less fleshy horse; a fatter bit causes more wrinkles. A bit that is too small will irritate the corners of the horse's mouth. Most equestrians say none of the mouthpiece of a curb bit should show outside the mouth. Some like to see a little bit protruding (not more than 1/4 inch) with a snaffle bit. If the throatlatch is too tight, it will restrict breathing. You should be able to put two or three fingers between the strap and the horse's throat. The nosepiece of a bosal or mechanical hackamore should rest where the nose cartilage enters the bony part of the nose.

Adjust a halter to be snug enough that the horse can't rub it off over the ears. Tuck the end of the crownpiece through the keeper of the buckle.

Secure all equipment (cattle bags, pommel bags, water bottles, sponges, map holders) so it keeps the saddle well balanced and doesn't flop around. A water scoop shouldn't bounce on a trotting horse's rump.

The horsemanship judge may fault you for such things as a halter too loose to be functional, a halter being too tight over the muzzle, or a back cinch so loose the horse could get a foot in it. On a muddy ride, clean the girth/cinch as mud there can cause much discomfort or sores.

The horsemanship judge may request to see certain items you are carrying. These are:

- a hoof pick or something for cleaning the feet and removing a rock jammed in a foot
- a halter and rope or similar gear (such as a halter/bridle combination) for tying a horse quickly, safely and securely in the event of a trail emergency
- your ride map/time schedule
- a watch
- a knife or trail tool

Recap

Tack and Equipment

- ☐ Adjust tack so it is safe, comfortable and functional
- ☐ Make sure a halter is snug enough to not slip off an itching horse's ears
- ☐ Secure items tied to the saddle so they do not bounce around

Stabling

The chief factors revolve around the safety and comfort of the horse and the rider's care of the horse.

While at the ride, you will usually tie your horse to the trailer when not riding or handling him/her. Years of experience have shown that this is actually a very safe method of stabling, and horses take to it very well and are quite comfortable. Most horses will stand quietly tied to the trailer if they have a constant supply of hay and ample water available at all times. Some horsemanship judges feel it is unsafe to use a rope halter for overnight tying to the trailer, because the narrow portion over the poll could cause injury if the horse pulls back.

Inspect the trailer in the area where you will tie your horse for hooks or latches where the horse could catch or cut him- or herself. The most common one is the back door latch on most two-horse straight load trailers. Unless you tie your horse at the midpoint or further forward on those trailers, s/he can usually stretch around and get the halter caught under the door latch while rubbing there. You can wedge a tennis ball over the latch and secure it with some duct tape for the duration of the ride.

Sharp projections present a clear hazard the horsemanship judge would fault. Torn fenders and protruding license plates can cause serious damage to a horse. If possible, relocate the license



A safe, clean and comfortable setup for this horse. Lots of hay, feed and water.

2017 Indian Territory CTR in Oklahoma. Photo by Mike Collins.

Inset: Canvas covering trailer side. Photo by Jamie Dieterich.

plate permanently. If not, you can wrap the plate with a towel and secure it with duct tape. Other non-trailer risks include dry twigs at

face level, wire ends not pinched back, and loose branches or rocks underfoot.

Many riders cover the wheel wells with a piece of plywood to prevent the horse from banging a leg on the rim, from sticking a leg under the trailer while lying down, or from catching the lead rope on the curved part. They pre-cut the plywood to the same shape as the fender well opening but a little larger. They secure it between the fender and the tires after they park the trailer. Others fill the space between the tire and the wheel well with foam padding.

Some riders have fabric covers made for the entire side of the trailer to present a smooth surface in the area they tie their horse. This does double duty in keeping the side clean and scratch free.

If your trailer has a V-shaped space behind the wheel well, it can trap a horse's foot; you should block that space with something like a towel, a piece of plywood, or even a large rock you find at the ride camp.

If you have to unhitch your trailer for the weekend, be sure the tires are chocked so your horse cannot move the trailer if s/he were to pull back. A panicked horse can drag an unhitched living quarters trailer a lot farther than you would think! Make sure the chocks or blocks are flush with the tire sidewalls and don't stick out where the horse will be standing.

It's a good idea to mount any buckets up over the wheel wells or at chest level on the side of the trailer to prevent a horse from accidentally catching a foot in a bucket when pawing. Tying large muck-type buckets to the trailer is unnecessary, but many riders push the rope handles down through their holes so the handles are not sticking up.

If you have any questions about the safety of your trailer setup, ask an experienced fellow competitor to look it over and assess it for safety.

Recap

Stabling

- ☐ Make the stabling area safe and comfortable for your horse
- ☐ Have ample hay and water available at all times
- ☐ Cover or remove sharp protrusions
- ☐ Chock your trailer wheels if you unhitch your truck
- ☐ Avoid horse feet in secured buckets by hanging buckets about chest height

Trail Equitation

From the NATRC Judges Manual:

The purpose of good trail equitation is to make the horse's job of carrying the rider as easy as possible and to enable the horse's performance to be as safe and smooth as possible. From that functional definition, the judging of trail equitation is to be based on its relevance to the sport of NATRC distance riding. The competitor should use riding form appropriate to preserving the horse's soundness and conserving the horse's energy as much as conditions permit. Related to that is judging the rider's endeavors to deal with horse manners to accomplish smoothness in horse performance and safety for self as well as others.

Balanced Riding for Distance Riders

Contributed by Donna Snyder-Smith

Achievements include American Riding Instructors Association Lifetime Achievement Award; Centered Riding Instructor; North American Western Dressage Award; America's Top 50 Riding Instructors 2007; American Horse Show Association, Inc. Judge. Author of three books. Now retired, she still offers help through video analysis and consulting.

The most efficient horse is the balanced horse. Because it takes more energy to recover balance than to maintain it, it is of utmost importance to a horse's efforts that the rider be able to move in harmony and non-interference as the horse adjusts itself over various types of terrain. Only the balanced rider can accomplish true non-interference.

A rider who is not in balance both longitudinally and laterally uses muscle tension or "grip" for security. Although tension in a rider's body might make the rider feel secure, it causes tension in the horse. Consider trotting your horse for a mile on packed sand by the ocean's edge. How much energy does it take to do the distance? How much more energy would it take to go that distance if you and the horse were in knee-deep water? Tension, like water, creates resistance to motion. It tires and debilitates and is to be avoided in the trail rider and trail horse whenever possible.

Riding light and balanced to not interfere with the horse's movement is the hallmark of trail equitation.

The rider should sit upright and light in the saddle at all gaits as well as at the halt. The dynamics of position and correct use of the

rider's body in the interaction with the horse's motion is more important than static form, but without form there is no control.

The desirable "light" seat can be achieved if the rider sits as though his or her torso were filled with helium. The helium is constantly "lifting" the rider, never allowing him/her to slouch or become heavy. The rider appears to float with the horse. Imagine the parts of the body which touch the saddle as being filled with fine sand. The weight of the sand stabilizes the rider, molding the seat and legs to the saddle and the horse's sides without tension or effort. In her book, *Centered Riding*, Sally Swift encourages riders to imagine a growing tree. In this concept, energy is sent both upward (lightening) and downward (stabilizing) to produce the desired "lightness" of the truly accomplished rider.

On flat or slightly undulating ground, the body of the trail rider is balanced over the feet, so a vertical line dropped from the rider's ear passes through the shoulder, hip, and ball of the foot at the walk, sitting trot or jog, and canter or lope. Riders whose feet and legs are carried toward the horse's elbow, in front of the vertical line of balance, are less effective at assisting the horse in carrying itself.

In the upright position, sitting in the saddle, a rider should **not** (1) carry the shoulders behind the vertical, (2) give the appearance of having a hollowed

or arched back or

(3) slouch in the saddle giving the appearance of a

rounded back. Stiff,

pinched shoulder

blades are not a

substitute for good

posture, but neither

is a relaxed, but

upright, torso a

reflection of

"sloppy" riding. The

middle back is the

key; the middle and

lower back of the

rider should be

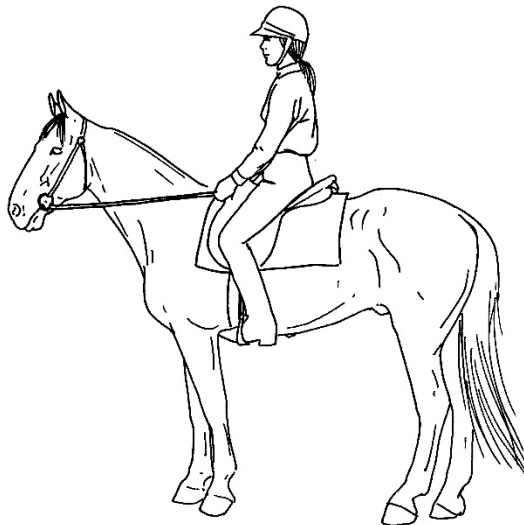
straight without

being stiff, the

shoulders not be

mechanically

rounded even though they might appear so due to individual rider conformation. Under no circumstances should the rider's shoulders,



A rider properly balanced in the saddle.

elbows, wrists or fingers look stiff or appear to move unnecessarily or "bounce."

The rider's heel should be slightly lower than the toe as the foot rests in the stirrup. This position allows the greatest freedom and shock absorbing capacity in the ankle joints. The stirrup should be under (and just slightly behind) the ball of the foot, which is the least tiring position. Stirrups placed too close to the toe or heel can cause the rider discomfort, including numb feet and sore knees.

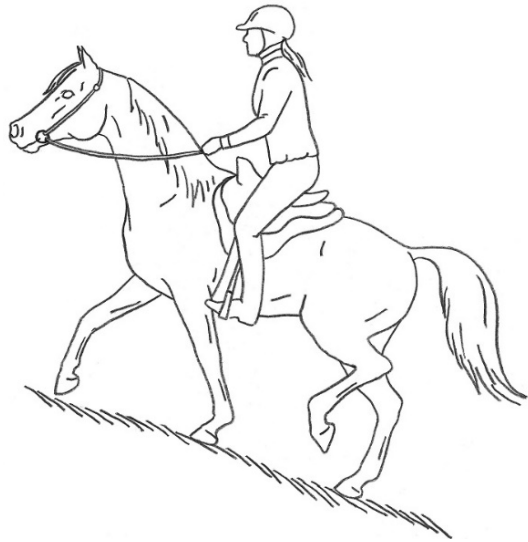
Viewed directly from the front or rear, the rider should appear to sit squarely in the middle of the horse at all times. Any one-sidedness, tendency to lean (shoulders not parallel to the ground), or drifting to one side of the saddle (pant seams not lining up over the horse's spine) can cause soreness in the horse's back. Close attention should be paid to stirrups being even. A rider who sits crooked on the horse's back will often appear to have uneven stirrups since a crooked seat causes the saddle to shift.

At the rising (posting) trot, standing trot, extended canter, or when ascending a hill, the rider's torso should incline forward. This does not mean standing in the stirrups and leaning forward by bending at the waist, but by folding the torso at the hip joint, keeping the back flat. In this position, weight is shifted off the buttocks and redistributed on the rider's inner thighs. The stirrups receive some of the redistributed weight as well, but must not bear the entire burden. The rider should never "pinch" the horse's back with their thighs or knees at this or any other time. This "half seat," in front of the vertical, position can only be accomplished without effort if the rider's stirrup length is adjusted in such a way as to permit sufficient flexing (loading) of the shock absorbers of the ankles, knees and hip joints. It is especially important that the ankle, knee, and hip joints remain flexible during the "standing" trot.

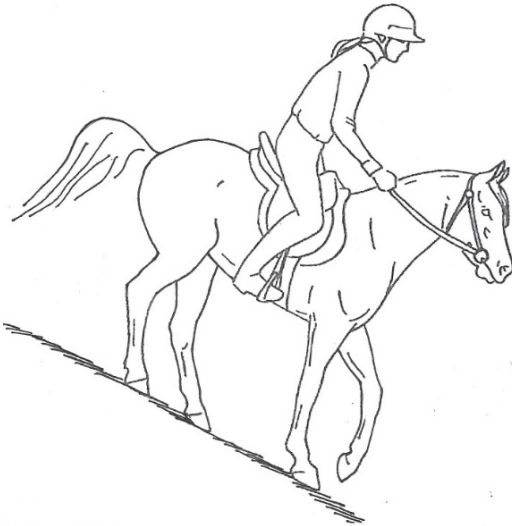
When riding up or down hills, the rider should be sure his or her weight remains off the horse's loin; the loins need to have complete freedom of movement for the horse to balance itself easily. If the ascent or descent is steep, some calf pressure might be needed to help the rider keep their legs and seat in the most inoffensive (effective) position.

*When ascending or descending hills,
keep your weight off your horse's loin.*

When the horse is climbing, the rider should bring the torso forward by closing the hip joint. It is acceptable to use the horse's mane to help stay forward during a steep climb as long as control of the horse is maintained.



When riding down a hill, the rider should appear as though he or she would land lightly on their feet if the horse suddenly disappeared from beneath him/her. It is not acceptable to lean back. The rider should allow the pelvis and joints to be moved by the horse's mechanical efforts, feeling the "walk" in their own joints, even



as they sit on their horse. The illusion of "stillness", the mark a good rider, comes because the horse and rider are in harmony, moving together rather than because the rider being physically rigid or tense. If the rider fails to allow free movement of their hips, knees or ankles, the horse will shorten its downhill stride and will be subject to stumbling.

Contributed by Priscilla Lindsey

Horsemanship Judge, Region 6; Retired Centered Riding Instructor

As stated above, riding in balance begins with the alignment of the rider's ear, shoulder, hip and heel in a vertical line when the horse is standing, walking, trotting or cantering. In addition, this vertical line

balances the riders of horses with lateral and four-beat gaits such as running walk and foxtrot. The faster trot, gallop and up hills require a change so it is the rider's center of gravity over the heel, with shoulder ahead of the vertical line and hip behind, counterbalancing each other. The amount ahead and behind the line depends on the speed of the horse or the steepness of the hill.

The first step in achieving this ideal alignment is to have the pelvis in true vertical position, neither tipped forward (rider with hollow back) nor tipped backward (rider with rounded back). Visual feedback from a friend or a riding instructor can help determine if you are sitting hollow-backed or rounded. If you can easily feel your seat bones (the bony knobs that you sit on when sitting properly), rock back and forth on them until it feels like they are pointing straight down at the ground beneath your horse's belly. Also, when the pelvis is in the true vertical position, you will feel the least amount of muscle tension (abdominal or lower back muscles) holding it there. If you can't feel your seat bones in the saddle, try practicing on a flat, hard chair.

*Use feel of
your muscles
and seat bones
to achieve true
vertical
alignment.*

Another way to assess your position is to pull your knees up over the pommel of the saddle until your thigh is parallel to the ground. Feel how you are sitting on your seat bones. Then lower your legs without changing the position of your pelvis.

With your pelvis correctly aligned, the next step is to position the legs so the feet are directly under your hips to provide a solid foundation of support. Otherwise, you will have to use a lot more grip, rather than balance, with your hands and legs to overcome the effects of gravity and the motion of the horse.

Riding a Gaited Horse

Contributed by Janine Ancell

*Past Horsemanship Judge, Region 3, and
Stacy Bowman, Competitor, Region 6*

A gaited horse does a "broken gait" meaning the front legs are usually not doing the same gait as the hind legs. At a foxtrot, a horse walks in front and trots in the rear. At a running walk, the horse trots in front and walks in the rear. For "trotting" presentations for the veterinary judge to evaluate soundness, you should make an effort to keep the horse at one gait, at one **consistent** speed long enough to permit a good examination.

When riding at a walk, center yourself over your gaited horse's center. There may be contact with the saddle, but distribute your

weight down your thighs and in the stirrups. You should be light but not up in the air. Riding a gaited horse is comfortable and easy, so you need to guard against becoming too comfortable and heavy in the saddle.

At the "extended" gait, standing up out of the saddle is not necessary and posting is impossible. You should be slightly forward with your weight distributed down your thighs and in the stirrups. Leaning back or being heavy in the saddle is still poor equitation. Riding too far forward for any distance causes pressure on the withers and shoulders from the saddle besides making the horse overbalanced on the forehand. Going up a steep hill, you should be a little lighter in the saddle and bending slightly more forward from the hips, just as on any other horse.

If the horse "breaks gait," it may be necessary to sit down more, push with the legs, and collect the horse a bit more to regain the desired gait. Once achieved, you should resume the "lighter" position. Training the gaited horse to go at the pace you want in the position you want is part of your work at home.

A sore back in a gaited horse could be from the rider sitting too far back, from being too heavy in the saddle, or from an improper saddle fit. Gaited horses do not require any special kind of saddle;



Gaited Morgan rider in balanced trail seat, unlike the show ring chair seat. 2018 Pine Grove Giddy-up CTR, Arkansas. Photo by Brandy Steele.

the saddle should fit the horse and be comfortable for the rider.

Although show-ring equitation on gaited horses calls for a deep, "chair seat" type of riding seat, riding a gaited horse in distance competition is not that much different from riding any other type of horse. Some riders of walking horses argue that they

get a more comfortable ride by sitting back during the running walk, but these same riders often end up making excuses for their horse's poor performance at the end of a ride.

As with other breeds, some gaited horses are easier to train and condition than others; there are differences in conformation and genetic potential. It is beneficial for all young horses to spend a lot of time walking, learning to develop a good, even, and fast walk. If you are unsure how your gaited horse should be moving, you will not be able to do a good job training and conditioning it. It would be good to get help from someone knowledgeable with your particular breed.

Biomechanics for Ascending Terrain

Contributed by Donna Snyder-Smith

Reprinted from Endurance News magazine with permission from the American Endurance Ride Conference, www.aerc.org, 866-271-2372, and from Hoof Print, official publication of the North American Trail Ride Conference, (Spring, 2014).

There's an old saying, which goes something like, "what goes up, must come down," which in and of itself is true enough. But in our sport, what needs to be considered is, "what goes up well, can keep coming down sounder - and for a lot longer." How a rider positions themselves in the saddle when ascending a hill is important to the horse's ability to do its job well. That position will be impacted by:

1. length of stirrups
2. horse's biomechanics (use of body)
3. suitability of saddle

Before we examine each of these aspects of efficient function, let's discuss the old wife's tale about standing in your stirrups. When a rider "stands" in their stirrups, all of his or her body weight and much of their energy force is directed downward, through their feet, onto the stirrup. The stirrups, in turn, displace this pressure and energy, sending them up the stirrup leather into the saddle tree, thus focusing all of the rider's weight like a pressure laser onto two tiny areas of the horse's back, just behind the shoulder blades. Bad news!

As a result of these dynamics, a rider standing in his or her stirrups when ascending a hill actually makes the horse's job more difficult by pinching the muscles the horse uses to move its forelimbs. Since the horse is unable to reach freely outward and upward with his front legs, its stride shortens. The raised head and contracted/hollow back stiffen the entire body, effectively preventing the horse's hindquarters (its most efficient power source) from functioning to the degree necessary to push its own weight and the weight of its rider efficiently up the incline. The horse then "grabs" at the ground, attempting to pull itself up, over-using and taxing the muscles of its neck, chest and forearms and the flexor and extensor tendons of its front legs in an attempt to do the job with "second string" muscle groups.

This pattern is inefficient and destructive in the long run and is seen all too frequently. Indeed, this pattern is present when horses attempt a really steep incline, panic and topple down slope, or gather speed and try to rush the hill in an attempt to overcome gravity.

The rider's job is to encourage the horse to use the eminently larger and stronger muscles of its hindquarters to push itself up the incline. Training a horse to climb correctly and efficiently is an important part of its development program, but how to do this must be left for another article. Suffice it to say, however, if the rider is not correct in the positioning and use of his or her body to aid the horse in its job, the horse no matter how correctly trained will be unable to function to its fullest capacity.

While "standing" is not an efficient posture for the rider when ascending a hill, neither is staying fully seated against the cantle of the saddle – a position which inhibits the horse's driving mechanism, and once again puts the rider in opposition to the efficient biomechanical function of the horse.

The photo shown here depicts a rider in a body position optimal for helping her horse climb. Her hip, knee and ankle joints are flexed. She has "closed" her torso over her base of support (her feet), by flexing at the hip joint – not by rounding her back. Her buttocks are lifted slightly out of the saddle, redistributing her weight onto her passive inner thigh muscles (no gripping!), allowing only a small amount of the transferred weight to descent to the stirrup. Her weight, because it is centered over her feet, neither overloads the horse's front end nor its hind end. If the terrain becomes excessively steep, she can grab a handful of mane to help maintain her upper



body and increase her calf pressure (lightly) against her horse's rib cage if necessary, to keep her legs and feet from swinging back and interfering with the horse's stifles as it climbs. If the horse were removed from the picture, this rider would land balanced lightly over her feet, falling neither backward nor forward.

The three factors which influence correct position – stirrup length, horse posture and equipment – can all be seen in this photo. The rider's stirrup length is short enough to allow a proper contact between the rider's foot and the stirrup. This allows the rider's ankle to flex and her heel to drop slightly below her toe. Rather than getting stuck behind the horse's motion, forcing the horse to heave the rider around like a sack of potatoes, this heel-toe relationship provides a "springy" base, enabling the rider to move with the horse as it makes reaching efforts with its front limbs and pushing efforts with its hind limbs.

The horse is standing in a relaxed position with its neck lengthened and carried in a natural posture, giving the rider plenty of room for the forward movement of her torso. A horse whose head is high and whose neck is inverted with the accompanying hollow back would make it very difficult, if not impossible, for a rider to position themselves in this manner.

Competitive distance riding is a partnership. The horse, being the bigger and stronger of the team, can compensate, sometimes for many years, but sooner or later disturbed biomechanics result in reduced optimal performance, altered load distribution, increased risk of injury and accelerated degeneration. Top competitors and caring riders can improve their role in the horse / rider team performance by improving their own mechanics.

Effective Downhill Riding

Contributed by Donna Snyder-Smith

Reprinted from Hoof Print, official publication of the North American Trail Ride Conference, (Spring, 2014).

Competitive trail, endurance and eventing competitors have numerous things in common: each discipline demands exceptionally fit horses at the upper levels and all at some time or other require riding descending terrain at trot, canter or gallop. While the event competitor is seldom asked to ride steep downhill terrain for a prolonged distance, and seldom subjected to the types of "questionable footing" (loose rock, deep sand, and mud) which are frequently encountered as a part of endurance and competitive trail competitions, all of the competitors in these disciplines need to be intimately familiar with the mechanics of what is being asked of their horses, when such an effort is extended. Certainly, balance of both

horse and rider will weigh heavily in the successful outcome of both an individual competition and a competitive lifetime.

Many riders grew up being admonished that when riding downhill, anything faster than a walk was both dangerous and injurious to the horse's legs. Can we change those rules and still avoid taxing our horses or pushing the safety envelope past the tearing point, or must we make sacrifices to participate in this sport, especially in the ranks? That is our question. The degree of descent, the footing, the length of descent, the horse's age, condition and degree of training all influence its ability to handle the challenge of descending terrain successfully. By "successfully," I mean in defiance of the old rules and the law of gravity. Whether the answer to this question is yes or no, depends almost totally on the *rider*, as it is the rider's ability to ride their horse in an efficient biomechanical manner downhill, which is perhaps the *most significant factor* in helping or hindering the horse in this aspect of any horse sport which involves traveling long distances across country.

To facilitate the horse's ability to utilize its natural ability to balance itself, a rider must be unlocked in their joints and position the torso in a balance over their base of support, i.e., their feet. This can only happen when the rider folds forward from their hip joint, bringing their upper body forward while at the same time, allowing their buttocks to slide back toward the cantle. Once in this position, the rider's weight is borne on the inside thigh muscles (without tension), a little bit on the gluteus maximus muscles (buttocks), with some being supported by the stirrups under their feet.



Rider, upper body forward, "floating" downhill at the 2012 Cowboy Camp CTR, CA.

Photo by Jamie Dieterich.

In this position, the rider "floats" down the hill with their horse, allowing the horse's energy to move up through their joints which act as shock absorbers, and through the rest of their body without resistance. This unlocked, "floating" rider position allows the horse (especially the muscles of its back) complete freedom, allowing the horse access to its natural, full range of motion, which includes the ability to put its hind feet well up under its mass to defend its front end against the impact shock resulting from the force of gravity.

Conversely, if the rider is mispositioned (positioned in a way that interferes with the horse's necessary biomechanics), even a little, tension is created in the horse. As a result of this limiting tightness (tension) in its muscles, the horse can be said to be "handicapped;" its stride shortening, its weight is falling onto its forehead — all deteriorative events.

While a rider's correct upper body angle (forward vs. backward) is of great importance in the equation of balanced riding and a horse's subsequent efficient movement, it is not the only factor. In order to position themselves in such a manner, the rider needs to address several items. The foot must contact the stirrup in a way which allows the toes to be higher than the rider's heel, giving the ankle and knee joints the ability to act as shock absorbers, flexing with every stride. The rider's knees jump upward slightly in an alternating manner with each stride, like shock absorbers compressing, as each of the horse's front legs strike the ground. The stirrup must be short enough to allow a platform for the foot to rest upon lightly when the ankle, knee and hip joints are flexed.

Leaning back and bracing the knee and ankle joints are two common downhill riding mistakes.

When the rider is positioned in this manner and his or her joints can work fluidly and freely, the feeling is one of "floating" around the horse's body, rather than of "sitting" on it, as a horse descends a hill at trot. It is both distinct and unmistakable and when combined with good mechanical execution (frame) in the horse, produces a remarkable ability for the horse to fly (no brakes, yet completely in balance) down hills in the lightest manner. In this state of freedom, you may notice that the interactive movements taking place between your body and your horse's body will cause you to feel as though you are on the ground, jogging down that hill yourself (only to a slightly less exaggerated degree, of course).

Posting or rising to the trot down a moderate grade is perfectly acceptable, but as the degree of incline and trot speed increase, the

rider is better to free up the horse by assuming this half-seat position. Cantering descents are also best done in this position, with the exception that the rider's torso is held in a slightly more vertical line than in the fast trot.

There are two common mistakes riders make when attempting to negotiate descending terrain. One is leaning back. While this may seem logical, (it worked for the man from Snowy River didn't it?) the position forces the rider's weight to the rear, impairing the horse's ability to round its loin, engaging its stifles and hind legs. In order to carry its weight and the weight of its rider on its hindquarters, freeing the front feet to both reach out (length of stride) and land lightly (insuring long term soundness), the horse must be able and willing to place its hind feet deeply under its body when descending. A horse with more of its weight on the rear limbs than on the fore feet is both easier to control and safer to ride. It is in a better position to correct a "misstep" whether that be quickly lifting a front foot off a sharp stone to avoid a stone bruise, or lifting the foot out of a hole or depression in the path to avoid stumbling or a strained tendon. If the rider's weight is too far toward the rear of the horse, the rider effectively blocks the necessary biomechanics in the horse that will allow it to perform its job efficiently.

The second mistake commonly made by riders is to stiffen the joints of their ankles and knees when riding downhill. This stiffness focuses the jar of motion into the horse's back, causing the horse to tense its back. Without a freely swinging back, both the horse's shoulder and hip become impeded in their ability to allow the horse's legs to swing, and again, we have a situation where the horse can't balance and defend itself because it can't access the free use of its own limbs.

Work on a mini trampoline is one way to find and eliminate tension blocks. Other problems which can be improved or solved by eliminating tension in the rider's body are: sore knees, tired, sore, achy middle and/or low back muscles, painful ankles, numb feet and shin splints.

For an illuminating look at how it used to be taught and done, spend an evening watching Volume 3 of the US Army Training Films - Cavalry Collection from Vintage Video (POB 551, Greencastle, PA 17225). Correct rider position is only half the story in efficient downhill riding at speed. The other half is putting your horse into a correct "frame," one that aids the horse in seemingly defying the forces of gravity as it descends. Many riders believe that the horse will learn this automatically by exposing the horse to lots of hours on the trail. I wish it were so. Unfortunately, for both horses and riders, this is just not true.

Best case scenario: a perfectly balanced (conformed) horse, with completely comfortable tack and a skilled if not educated rider, exposed to *just the right amount* of the muscular efforts demanded by varying terrain in any given training session, during formative years, but also during any conditioning period, would develop the necessary muscles to defend itself by efficient movement.

The reality: the horse cannot understand why it should change its normal pattern of movement (two-thirds of its weight on its forehand) because it does not think in human terms. Therefore, it cannot understand at the beginning of its training, that if it travels the many training and competitive miles in a forehand heavy position with the weight of a rider added to the equation, it will cause increased degeneration to its bony systems as well as threatening the integrity of its support systems (muscles, tendons and ligaments).

So if you want the best outcome for your athletic team, correct, knowledgeable, gymnastic work is the answer.

Body Sway Downhill

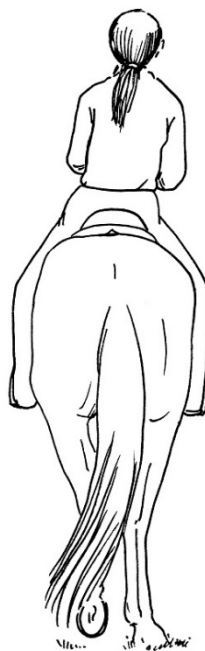
*Contributed by Priscilla Lindsey
Horsemanship Judge, Region 6*

The first step to solving this problem is to look at the cause. There are three major causes: sitting heavy in the saddle, bracing against the stirrups, or being a small, lightweight rider riding a horse with big, powerful strides. The solution to all is the same.

Awareness is the key. The first thing you must do is become aware of what your body is doing when the horse is moving. The next time you and your horse negotiate a steep descent, feel what your body is doing. Are you holding yourself rigid, bracing against the stirrups, letting the rise and fall motion push you side to side? Are you sitting heavy “on your pockets” and letting the horse’s motion throw you back and forth?

Riders who sit light, yet relaxed, with flexibility in their ankles, knees, hips and lower back, can follow the motion of the horse with their seat bones and legs while keeping their upper body relatively still.

Have you watched Hawaiian women doing the hula? They have lots of motion in their



Excessive body sway to the right.

pelvis while keeping their upper body still or moving slowly. You don't have to be quite that flexible, but almost!

If you can visualize your abdomen, below your ribs, having a spring inside, let it collapse on first one side and then the other as your horse alternately lifts and drops your seat bones. Feel the sensation of your seat bones and legs walking forward with the horse's walk while your ribcage and shoulders remain vertical and still. Let your upper body "float" above your lower body, with your natural muscle tone holding you upright, not tension or rigid muscles.

Two more things that can hinder your downhill balance: first, leaning back too far, instead of trying to stay relatively perpendicular to you horse, magnifies the rise and fall motion and makes it much harder to minimize the sway. And, second, looking down at where your horse is placing its front feet throws you off balance and allows tension to override your flexibility. It is much better to keep your head upright and balanced, looking at something at the bottom of the hill or on down the trail. Your horse will take care of where its feet are going without your having to watch them.

Down/Up Transition

For a smooth performance through a down and up, such as a gully, the rider needs to apply not only all the body and leg principles of the descent and climb positions vital to balance and lightness, but the rider also must rein with tactfulness based on the horse's ability and temperament. Make a smooth transition from the descent to the climb in order to not to interfere with your horse or jeopardize your own balance and safety.

The rider who doesn't move readily into the climb position at the instant the climb-out begins will be put behind the action of the horse. The cause might be inadequate body alertness and/or inadequate rein control, the latter allowing the horse to rush or lunge. To compound the problem, a rider propelled back in the saddle might accidentally use the reins for balance if the horse lurches forward. It is always a good idea to ask for a slight stop (half-halt) at the bottom of the transition before continuing up.

Obstacles / Observations

The term "obstacle" refers to natural trail situations (or simulated natural trail situations) that give the judges an opportunity to evaluate the rider's skills in cueing the horse, a matter that involves the rider's rating of the horse, timing, reining, leg aids, possible voice cues, plus the horse's responsiveness. A few examples of these situations are bridges, water and log crossings, maneuvering through rocks or downed timber, backing out of a dead-end, or opening and closing a gate. Sometimes the judge just asks for a demonstration of skills a

well-trained trail horse should be able to do such as backing up or side passing.



The judge's instruction was to stay between the yellow ribbons through this section of trail, 2019 General Albert P. Clark Memorial CTR at Air Force Academy, Colorado.
Photo by Bill Wingle.

Slow down for the obstacle. Communicate to your horse that you want it to pay attention. Look ahead, out in the distance. Your horse will go where you focus your eyes. If you are looking down, your body will be twisted and hindering the horse's balance. In addition, riding with your head down adds weight to the horse's forehead. By the time you see where its feet are being placed, it's too late for you to do anything about it anyway. If your horse is nervous while the one ahead is completing the obstacle, turn it around, facing from where it has just come from. Judges recognize that for any certain movement there is more than one way to school a horse, more than one way to cue a horse. A judge will not fault the manner in which

you ask provided it works and it is safe. If your technique seems inappropriate and does not produce the desired results, the judge may fault you.

*There is more than one way to school a horse
and more than one way to cue a horse.*



Back up hill, 2017 Hartsel Springs Ranch
CTR, Colorado.

Photo by Bill Wingle.

To perform a backup where you need to avoid rocks, brush, limbs, etc., look behind your horse to pick a clear path before cueing the horse to back. If you have just come to the judge over a clear, flat road and the judge asks for a backup, technically you do not have to look back. However, you wouldn't back up your car without looking, would you? When you look back, just look over your shoulder; do not twist your body. Using excess force on the bit (causing the horse's mouth to gape open) will be a fault.

If, at any obstacle or observation you are uncertain what the judge expects (walk over the log? walk around the log?), ask. If you feel the obstacle/observation is beyond the ability of you or your horse, tell the judge you

will pass on that one. You will be faulted one more point than the worst rider doing it; conversely, no matter how badly you do an obstacle, you'll score better than someone who doesn't do it at all. The judge will expect you to do an obstacle in a reasonable amount of time; it would be inconsiderate to hold up other riders. The judge may even give you a time limit in which to complete the task. It is usually better for the horse if the rider does not make a big deal of a refusal; use the experience for more quality training time at home when you and the horse are in a better frame of mind.

Many riders prefer to ride their own ride, to ride alone, out of the pack. The horse usually behaves better when it only focuses attention on its rider, and not on the "herd." However, camaraderie develops while riding with someone else; plus there is added security with someone close-by. If you ride with others, be sure to do what you think is right and best; don't be guilty of "monkey-see-monkey-do" for either you or your horse; the other guy might be doing it wrong.

Gates

Contributed by Pat Jubb

Past Horsemanship Judge, Region 3

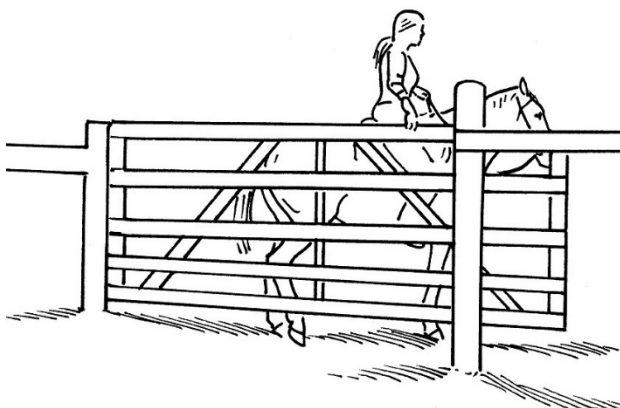
There is more than one way to open a gate. One standard says to look at the latch to open the gate; look at the hinge to close it; always swing it away from you. In the West, the correct way to do a gate is dependent on where the cattle are; the horse should always face the cattle to be able to cut them off if they should try to get through.

Use the same hand throughout, sliding it along the top of the gate when necessary. Deciding which way to do a gate depends on a number of factors: the placement of the hinges, how close perpendicular fencing might be, cattle guards, etc.

Four methods for handling gates:

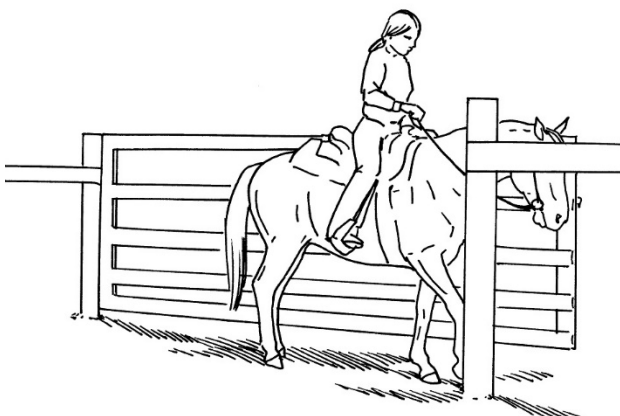
1. **PULL GATE**

Pull the gate toward yourself; walk forward around and through the open end. Then while backing up parallel to the fence, pull the gate toward yourself to close and latch.

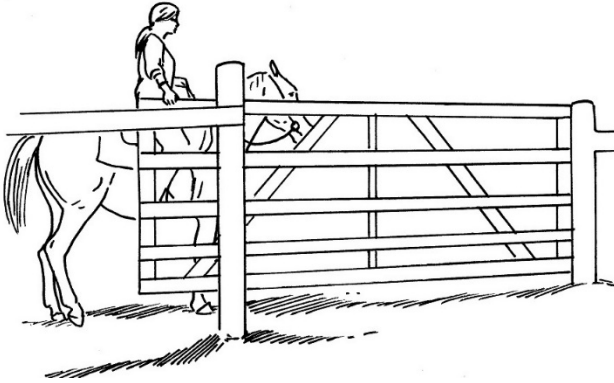


2. **PUSH GATE**

Push the gate away from yourself, walk forward through and around the gate, side pass to push the gate closed and latched.

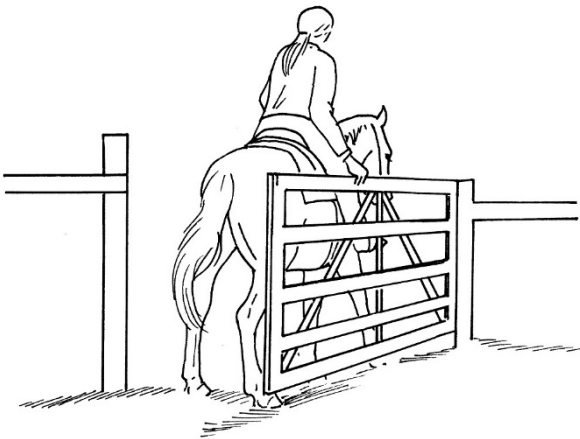


3. PULL AND BACK GATE



Pull the gate toward yourself, back around the open end and through, sidepass while pulling the gate to you, close and latch.

4. PUSH AND BACK GATE



Push the gate away from yourself, back through and around, then sidepass to close and latch.

Whichever way you do the gate, you must maintain control of your horse. The judge might fault you for losing hold of the gate. Do not lean way over to the side of, and unbalance, your horse.

On conditioning and training rides, open and close gates at every opportunity you encounter.

The Judged Mount

Classic Flat Mount

First, if possible, have your tack adjusted (girth/cinch tightened, stirrups down, reins snapped) before you present the horse for the judged mount. Don't lead your horse with the reins around the neck. Then "square up" your horse so that all four feet are at four equal corners. This enables your horse to more easily accept your weight without being thrown off balance or moving off.

Next, put the reins over the horse's neck and walk to the side of your horse. Keeping the reins fairly even, put your rein hand on the neck and the other hand on the other side of the pommel or on the cantle. With your foot in the stirrup, push off with the other foot with a certain amount of "bounce." Using your core strength, lift yourself up, swing your leg over the horse's rump and lower yourself gently but quickly into the saddle, landing like a feather. As you make contact with the saddle, slip your foot into the other stirrup, and straighten your saddle.

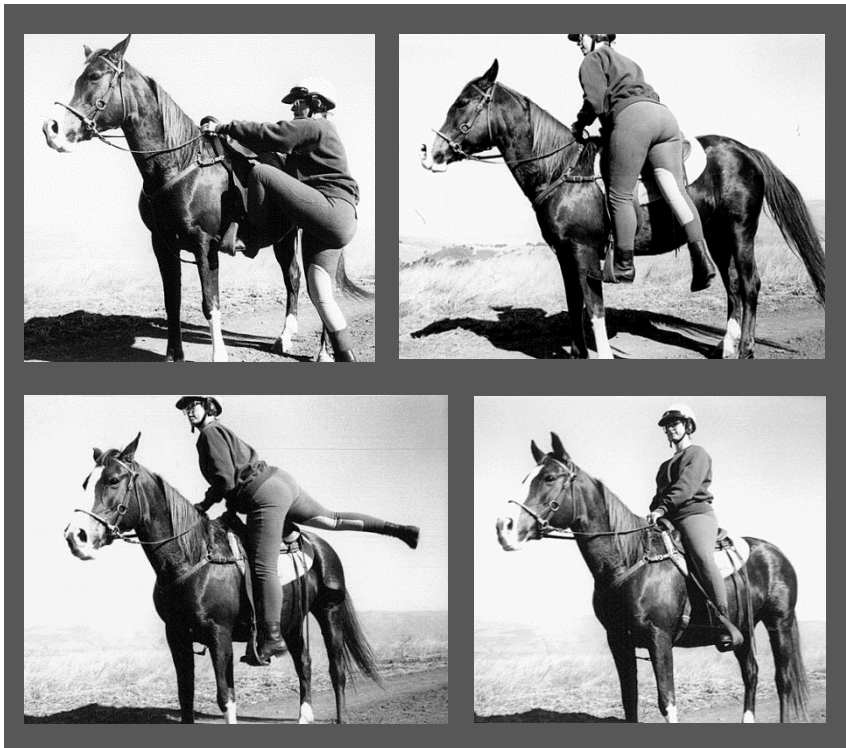


Photo sequence by Jan Jeffers.

The mounting process is a vulnerable time. Pay attention to your horse's ears for signs that you are in tune with each other. Be ready to make corrections or even to start over. Maintain rein contact and control to not let the horse move off before cued to do so.

Terrain Assisted Mount

We are using the word "terrain" to mean some object to stand on to make mounting or dismounting your horse easier for you and less stressful for your horse. Terrain can be something like a rock, log, trailer fender, truck tailgate, mounting block, concrete wall, fence rail, or anything stable and sturdy that will not move or break when you stand on it.

The mounting technique is the same as from the flat mount. You just start from a higher point. By using terrain to your advantage, you are not hauling/pulling your saddle toward you in your mounting effort so the saddle puts very little torque on your horse's back. Research shows scientifically that the terrain assisted mount is better for your horse. Whenever possible, use terrain. Your horse will thank you.

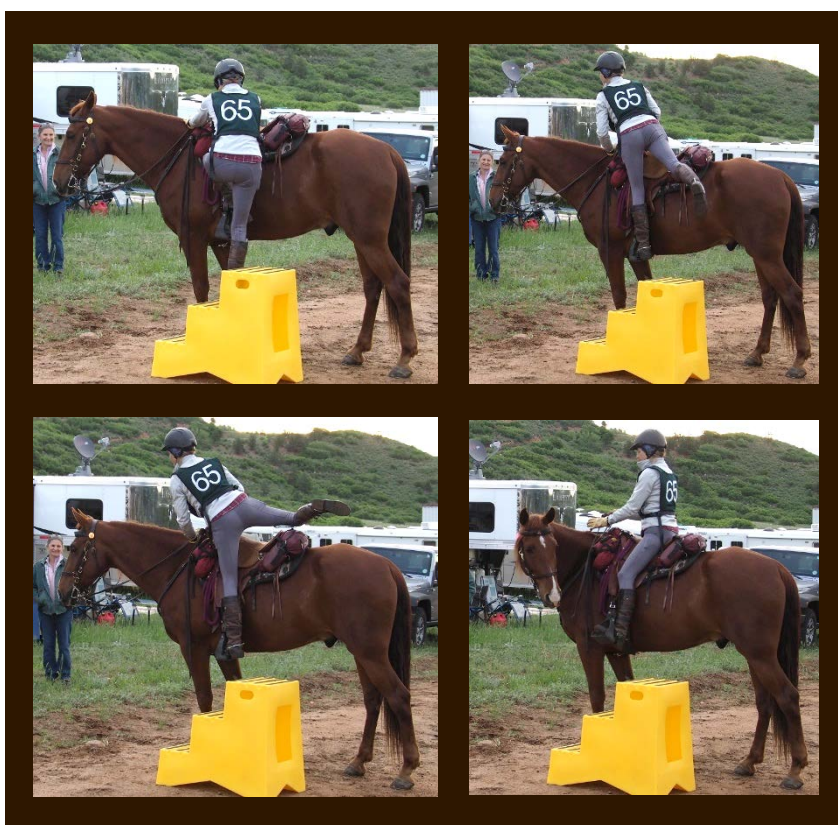


Photo sequence by Bill Wingle.

General Comments

Practicing your mount at home to master the mount is important. The late Bev Tibbitts, an accomplished horsewoman and NATRC judge, recommended mounting your horse several times in a row during a conditioning ride. That way the horse gets used to being mounted and not directly moving off. She recommended mounting from the near side, dismounting on the off side, mounting from the off side, dismounting on the near side several times to not only help teach the horse to stand still, but to strengthen both of your own legs and stretch the stirrup leathers the same.

To dismount, gather the reins, kick one foot free of the stirrup, swing that leg over the rump, kick the other foot free and slide or spring down the horse's side with a slight twist so you land facing forward, OR, do the mount in reverse.

You should be proficient at mounting and dismounting from either side. Use terrain for both whenever possible.

Common faults in mounting include mounting/dismounting on the downhill side of the horse, dwelling too long in the stirrup on the side of the horse, dragging your foot over the rump, not resetting the saddle after mounting, permitting the horse to walk off too soon, and pulling the horse off balance.

Hands and Reining

*Contributed by Nancy Smith Kasovich
Horsemanship Judge, Region 1*

*You should be
proficient at
mounting your
horse from either
side.*

In the words of a riding instructor, "Let me remind you that the reins you hold in your hands are connected to a piece of steel in the horse's mouth. These reins are for control and communication with your mount. You are **never** to use them as a means of maintaining your own balance or venting your displeasure with your animal."

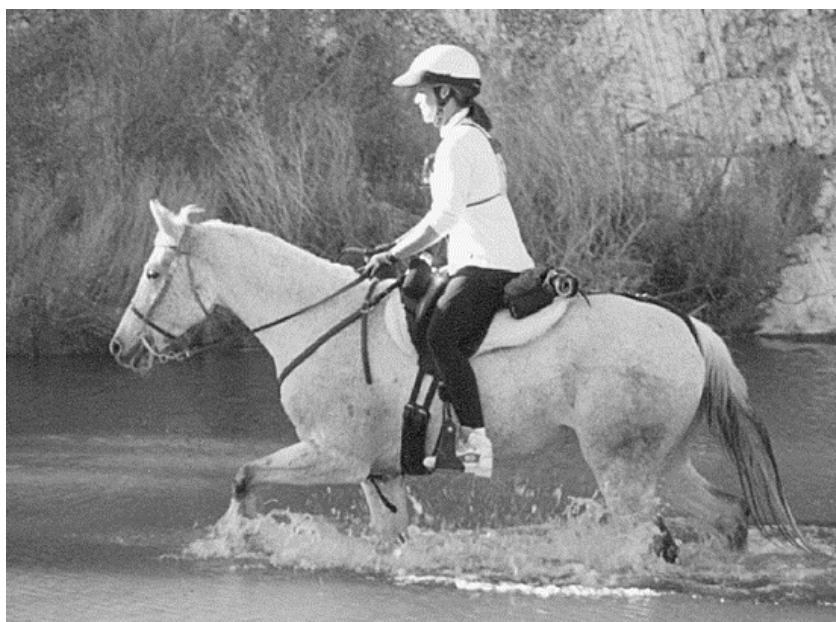
The hands are the prime means of communication with the horse whether I'm on the ground or on its back. My voice and leg aids are backup systems, but my hands on the lead rope or the reins are the controlling factor in the relationship. What I do with my hands determines the performance of the horse, my safety, and our mutual respect for each other.

When I examine a horse, I casually run my hands over its neck and scratch its head. If it's a skittish animal, does it become tense after I rub it, or does it seem to relax under my touch? This response is a crucial key to the animal's basic personality. This knowledge is just as important to me as conformation and soundness. This is where it starts - at the touch of my hand.

*Never use the reins to maintain your balance
or to vent your displeasure with your horse.*

Try to think of your hand as a sensor composed of five sensitive fingers each working separately around the palm or cushion of your hand, exerting as much pressure as the situation demands, but always maintaining contact. When you hold the lead rope or reins, you must be in communication with the animal on the other end. Contact is communication and control. Control is safety.

Through your hands, you should be many things to your horse: a respected and trusted friend, a quiet, steady influence whom will reward good behavior with a word and a touch and bad behavior with a calculated correction using the rope or rein. I do not include the term partner in this because a partner has an equal say. Good hands are not just a pretty pose. When a horseman (and by that term I'm not referring to someone who owns a horse, but rather a person who has earned the respect of his peers by his/her ongoing knowledge and performance over the years) says, "You have a beautiful set of hands," this is what it means, and you have received a fine compliment.



"A beautiful set of hands." Sage Hill CTR, California.
Photo by Juli (Moss) Carralejo.

Doing a mount is an excellent opportunity to demonstrate the use of hands in relation to rein control. The communication through the hands should be quiet and steady because that's what you expect from the horse.

When you reach the designated mounting area, you should position your horse for the mount. Put a quiet hand on the neck, speak a low word, and give a light movement of the rein to straighten the horse up and get its attention **before** you mount. This is so very important. How many of you, at one time or another, have tried to sneak on quietly while the horse was absorbed in some fascinating sight, only to have the whole thing fall apart when your horse realized what was going on? Take that extra few seconds to communicate through your reins and thereby control the situation.

If your reins are the proper length to maintain light contact as you mount, you will feel and be able to anticipate a movement before it occurs and correct accordingly. If the horse is about to move forward, a firmer rein pressure should steady him. A lessening of rein pressure with a light touch by the withers should correct a horse about to move back. Remember the secret is **contact**. Communication with your horse enables you to anticipate these movements and adjust to them before they occur. If your reins are too long, you won't achieve this. If they are too tight, your horse will overreact to freeze on the bit. Either way, you have broken the line of communication.

Collect your horse. Communicate with your horse. When you have its attention and your light rein contact is correct, mount, ease your leg over, and drop lightly into place. Maintain that steady rein contact. If you catapult on board, this throws the hand forward, sideways, whatever, the horse moves, and the rider is marked "Off balance, heavy into saddle." That's bad enough, but the horse will probably lose points also for moving on the mount. It's not the horse's fault. The rider is the one who is supposed to have the brainpower. It's up to you to anticipate and correct before, not after.

Continuing down the trail and moving into a trot, you should notify your horse that a change of pace is coming. If the horse is very relaxed, walking quietly, this means the rider will collect it through rein contact and legs. The horse comes together, the rider feels this through the reins, lessens pressure slightly, increases leg pressure, and the horse moves off smoothly.

If the horse is very eager to go, take your time. Ease forward (slightly less rein pressure) into a very slow trot and gradually accelerate, but only if the horse settles. If the horse moves off jerkily down the trail, you are probably exerting unsteady pressure. You give, your horse takes. You try to take, your horse resists. If the horse jumps into the trot and whizzes away, perhaps this is how you prefer

to travel, but more likely you gave too much rein and the horse got the jump.

If the horse weaves its way down the trail, you are probably guiding with an unsure hand. If your weaving horse is green and doesn't have a set way of going, hold your horse straight through the use of hand and leg aids, then ease slowly into a trot and keep it slow. A collected horse is much easier to maintain steady hands and seat on; you can then work up to whatever speed you want. Don't try to do it fast before you can do it slow properly. If the horse weaves from side to side down the trail because your balance is poor, concentrate on one thing at a time. If the hands are steady and the fingers supple, chances are the balance will equally improve. Never try to maintain your balance by your hold on the reins.

The wise equestrian knows to avoid the pack. If you are working to achieve smoothness, collection, and control, flying along ahead of/in/or behind the cavalry charge is very self-defeating. It's nice to ride with friends and enjoy the day with them, and if you're a good rider with a finished horse, there's no reason why not to. In competition, I prefer to ride by myself or with one other person because it's easier to maintain a horse's attention. That fine line of communication, hands through reins to mouth to horse's mind, can become kinked when the horse's mind is wandering.

Develop the ability to listen through your hands to what your horse can tell you. "I'm scared." "I'm tired." "I'm sore." "I love you." This all comes through the reins. This isn't something that happens overnight. We're all perennial students, and if you don't believe that, you've missed the trail.



Happy and feeling good. 2019 Rabbit Valley CTR, Colorado.
Photo by Bill Wingle.

There are always variables when working with animals, and problems arise. Above all, be patient with your horse and with yourself. Riding is a sport. Horsemanship, in its finest sense, is an art to be worked on and perfected throughout a lifetime. May you all become artists with a beautiful set of hands.

Recap

Trail Equitation

- ☐ Ride light and balanced to not interfere with the horse's movement
- ☐ When ascending and descending hills, keep off your horse's loins
- ☐ Bend forward at the hips, slide buttocks back, and "float" downhill with your horse
- ☐ Use feel of your muscles and seat bones to achieve true vertical alignment
- ☐ On gaited horses, use a balanced trail seat rather than a show ring type chair seat
- ☐ Avoid upper body sway going downhill keeping your upper body still and lower body fluid
- ☐ Listen to, and follow, judges' instructions
- ☐ At an obstacle, steady yourself and your horse, then proceed slowly
- ☐ Prepare yourself and your horse for transitions
- ☐ There are four ways to open a gate; practice them all
- ☐ Keep the same hand on the gate during the entire opening and closing process
- ☐ Be proficient at mounting from either side
- ☐ Whenever possible, use terrain for a mounting/dismounting advantage to avoid putting torque your horse's back
- ☐ Reins are for mutual horse/human communication
- ☐ Never use the reins for balance or for venting displeasure with your horse
- ☐ For the best communication with your horse, ride solo or with just one or two other people



High Mileage Horse – 20,710 Competition Miles
Wing Tempo (American Saddlehorse) – Rider, Shirley Sobol –
Seven-time President's Cup Winner.
Photo supplied.

Trail Care

General Care of Your Horse

Trail care begins before you even get to the ride. Trail care is about having done your homework, being prepared, and taking care of your horse during the ride. Make any changes in your regular routine at least several days before the ride.

Temperature and humidity play a big role in your horse's performance. Most of the horse's cooling is through sweat evaporation. The more moisture the air contains, the less the sweat can evaporate. One useful indicator of possible performance problems is the combination of temperature and humidity. A temperature and humidity figure totaling:

- 130 or less does not compromise the heat loss from sweating
- greater than 150 severely compromises heat loss, especially if the humidity component is more than 50%
- greater than 180, heat loss is practically non-existent

Avoid tack that covers more of the horse's body (and sweat glands) than necessary. If your horse has a heavy mane, it would benefit from having it braided or pulled to have more evaporative surface area.

Before the beginning of the ride, gradually warm up the horse's muscles to get the cellular engines operating more efficiently.

It is more efficient for the horse to maintain a constant pace than to speed up and slow down all the time. An exception to this is slowing down for hills, which saves muscle exertion, tendon strain, and heat build-up. After the ride, use intermittent hand walking to help cool down your horse.

*High heat and humidity
compromise your horse's cooling capacity.*

Clipping

The hair coat can trap heat (that's what it's there for) and thus reduce cooling. Body or trace clipping can help prevent over-heating and related metabolic stress on the equine, as well as to speed the cooling process in the fall and during early spring competitions before natural shedding has occurred. Understanding the hair growth cycle, and therefore picturing when the hair is growing out, helps you make decisions about clipping for rides. A horse's winter coat starts growing deep within the follicles as the days start to shorten after the summer solstice. By around late August, the winter coat starts to

break through the skin and push out the short summer coat. Most of the shedding of the summer coat happens around the time of the fall equinox. We usually aren't aware of this shedding because the hairs are so short, but we might be aware that our horse is shivering in the early fall because he's lost one hair coat and hasn't fully gained the other. Regrowth of the winter coat is usually good if you clip the coat in mid to late September.

The summer coat starts growing in the hair follicles around the first of the calendar year, and by early spring, is pushing the winter coat out. The spring shedding of longer hair is quite apparent. If you clip a horse's coat in January, it'll be several weeks before there's a new hair coat, and you will probably need to blanket your horse to protect it from inclement spring weather.

The best areas to clip are the major arterial areas (where the jugular veins are, from throatlatch area to thoracic inlet), inside the upper arms and upper hind legs (elbow to knee and stifle to gaskin), as well as the abdomen and flanks. It's best to not clip those areas that will be under tack.

Water and Water Crossings

Normal water consumption for a standard horse on a standard day is around 5 gallons per day. That could rise to 20 gallons per day on a hot day or with hard work. There is evidence that endurance horses can lose 2.5 - 4 gallons per hour during competition. Losses of 0.5 - 1.5 gallons per hour are more common and probably closer to what losses in a competitive trail horse would be. It is critical that the horse drinks enough water to meet its needs. As water is lost, the blood gets thicker, cannot carry as much oxygen to the muscles and other tissues, and the heart beats faster to compensate for less blood volume. In severe cases, blood availability to the skin decreases which in turn results in less sweating, overheating and circulatory collapse.

Fluid and electrolyte imbalances can affect the cardiovascular, neuromuscular, digestive and urinary systems. Give your horse a chance to drink at every opportunity, every hour on the trail if possible. A loss of 3% of body water (about 4 gallons) can have an adverse effect on performance. Indications of dehydration can include persistent elevated heart and respiration rates, a weak pulse, poor capillary refill (in the gums), muscle weakness and tremors, depression, reluctance to move out, a dry mouth, dry manure, and decreased urine output. Decreased gut sounds, an indication of impaired circulation to the bowels, usually occurs due to dehydration and electrolyte imbalance; blood flow has been detoured from the intestinal tract to the immediate needs of the muscles.

Horses that are hot and breathing hard don't drink well. Give your horse a few minutes to catch its breath at a water stop and a fair chance to drink before you go on. Move out of the way of other riders and stand your horse in deeper water while you put water on your horse in the same areas where you would clip a heavy coat. This will usually encourage your horse to drink, especially when it realizes that you are not in a hurry to move on down the trail. After your horse has drunk well, give electrolytes if you so choose.

Water on the horse, especially his head, neck, chest and legs, helps conserve water losses through sweat and adds to the cooling process. These areas have many superficial blood vessels that carry blood close to the surface. This cooled blood returns to the muscles to "pick up" more heat to transfer to the surface.



Sponging the front of a horse well before moving on and letting evaporation do its cooling job. 2016 Pine Grove Giddy-up CTR, Arkansas. Photo by Brandy Steele.

As much as 80% of cooling can take place on the front part of the horse. You can soak the entire horse if it is very hot (and humid). However, if there is any chance the horse might get chilled or the large rump muscles might cool too fast, the risks would far outweigh the benefits. While recent studies conducted on horses performing in very hot, humid conditions concluded cool or even ice water was beneficial, most experts still believe you need to use caution when putting water, especially cold or ice water, on the large rump muscles under most conditions. You can scoop water at water crossings or squirt water on the neck as you ride. Some riders use a sponge attached to a string to dip

into streams or creeks without dismounting and then squeeze water over the horse's neck.

If you soak your horse's neck and chest with water and do not continue on the trail, scrape it off after a few minutes. The horse

heats the water, and the water becomes a heat trap. Soak, scrape, soak, scrape until the skin no longer feels hot. Stop soaking when the skin feels cool to the touch. If you soak and move on, the air over your horse's body evaporates the water and keeps cooling your horse until it is dry.

P&R Stops

If you see P&R teams ahead on the trail, do not hold back but proceed directly to them. Often management arranges a non-stop climb or a mandatory trot to a P&R, in which case you may rest your horse prior to that. When you arrive, a P&R team member will record the 10-minute recheck time on a card and put the card on your horse or give it to you. Dismount and quietly place your horse in line as directed by the P&R team.

Unless you would be interfering with the P&R team, put the near (left) stirrup over the saddle and loosen the girth, if it is not already reasonably loose, to improve circulation along your horse's belly and back. Stand near your horse's head but not so close that s/he sniffs you thus affecting the respiration reading. Control the horse as you would for any inspection. If the circumstances in the P&R lineup are safe, readjust the equipment as needed and check the horse's shoes and feet.

Pulse and respiration are two of many indicators of your horse's condition and handling of ride stress.

Since a horse's pulse may elevate because of excitement, pain, or sickness, you should be conscious of this and know your horse's usual behavior. Your horse needs to be calm and relaxed at P&R checks.

Any tack you loosen should remain tight enough to be functional. Loosening the cinch means a notch or two; it doesn't mean five notches. It should still be tight enough to hold the saddle on, or it should be completely undone. If the horse spooks, the saddle should stay where it belongs or fall to the ground; it shouldn't end up hanging from the belly. If the cinch is undone, the martingale or breast collar, and the back cinch and crupper if you use them, should be completely free also; do not leave the saddle connected to the horse by only one or more of the accessories. Keep the back cinch snug enough that it doesn't leave a gap that your horse could get a foot in. If a retaining strap is used, do not unbuckle the back cinch and leave it dangling.

If it is a very hot day, your horse could cool itself better if you remove the saddle because the back contains many sweat glands. You can also use something to fan your horse with if there is no breeze; cooling is much more effective if air is moving over the body. You can squirt some water from a water bottle or spray bottle on the horse's neck to help with evaporative cooling. Some riders sponge their horses with water about the head and neck; others prefer to let their mounts rest quietly. Do what you think is best for your horse. Some rides hold P&Rs in a shady area that also helps the horses recover. Some riders offer the horse a sip of water as a treat. After you have taken care of the immediate needs, try to establish a ritual to help your horse be quiet and truly relax. This will help your horse and the scores.



Cooling a horse at the second Sunday P&R in the
August 2014 Eagle Ranch CTR, Missouri.
Photo by Andy Klamm.

If your horse's respiration remains elevated, spend more time cooling him by sponging water over his neck and legs where large blood vessels are near the surface. Scrape off the excess water, then sponge again. Excess water left on the horse actually traps the heat. Rectal temperature, which reflects core body heat, should never exceed 104 degrees.

An obvious fault is letting go of the reins or lead rope while adjusting equipment. If your horse ground ties while you're alone, that's one matter. However, if your horse gets spooked and takes off with several other horses nearby, it could cause a herd stampede.

Before your 10 minutes are up, note where a P&R team is so you can get their attention if necessary. It is helpful for you to know what

a normal recovery is for your horse by taking P&Rs during your conditioning rides. If you feel there is an error in the recovery reading, you may ask for an immediate recheck. It is important to correct any error. You may request only one recheck. The reading at the recheck is the one scored.

A horse that is not in condition might not recover sufficiently within the 10-minute rest period to bring the P&R rates down to acceptable levels for continuing. In that case, for its own safety, the horse is held for an additional one or two 10-minute increments until recovered. You must add the time used for the extra 10-minute "holdovers" **to your minimum and maximum times**. If a horse has not met both pulse and respiration recovery criteria simultaneously after two 10-minute holds (a total of 30 minutes' recovery time including the initial P&R), the horse shall be pulled.

If a nearby horse is having a P&R reading taken, wait until the P&R team completes the reading before you move off.

It's not surprising that more problems occur on hotter, more humid days. If the horse arrives at the P&R taking rapid, deep, heavy breaths, it is exchanging built up carbon dioxide for oxygen. If after a recovery period the horse starts taking rapid, shallow breaths, the



Quick post P&R hydration check at the 2012 Mt. Diablo CTR, California. Photo by Jamie Dieterich.

respiration might even be higher than the pulse. This is termed an inversion; the horse is panting in an effort to get rid of excess heat not being lost through sweating. In that case, you need to take extra measures to help your horse cool down. Remove the saddle, soak the head, neck, chest and legs

with water, scrape the water off, soak, scrape, etc. Walk the horse around slowly to improve airflow, fan some air over the horse, stand him in the shade, and stand him in some breeze. It's a good idea to take the temperature; it should not be over 104 degrees (normal for an adult horse is 99-100).

Frequently the veterinary judge inspects the horses after the P&R check. You would then proceed with the horse in-hand for that, much like at the pre-ride examination.

Lunch Stops

Minimal care involves cleaning sweat from around the horse's eyes on arrival and picking out the feet before departing. Other care depends on the weather, the horse's condition, water availability, and what the rider feels is necessary.

Some riders prefer to let their horses rest quietly for the full time, while others feel that sponging quickly after the horse cools is more beneficial. If you can use water to help cool your horse, do so. That conserves your horse's sweat, which in turn conserves water and electrolytes. If you soak your horse's neck and chest with water, scrape it off after a few minutes. The horse heats the water, and it can act as a heat trap. Soak, scrape, soak, scrape until the skin no longer feels hot.

If it is a cool day, too much sponging could chill your horse. Wetting the lower legs, especially if a stream is available, is good therapy.

Removing the saddle or leaving it on is at the rider's discretion; however, especially if it's hot and humid, the horse can benefit from improved cooling if you remove the saddle. Think about how good it feels to remove your helmet at the lunch stop. Without a saddle, your horse might even want a good roll in the grass.

Be sure the horse gets all he wants to drink. Let your horse graze if grass is available. Grass adds moisture and electrolytes. If you or ride management have carried some food for your horse, offer it after your horse has cooled off, quieted down and had a good drink. Intestinal circulation and function will not be up to par for digestion until the horse has recovered some. If a horse eats hay without having had a good drink, it will pull critical fluid from the circulation system into the gut for digestion. A forage feed, such as hay or beet pulp, is better than a grain supplement, which can cause excess gas and/or a spike in insulin.

Tie your horse with a halter and lead rope. It can be risky to sit on the ground holding a horse. Holding the horse in-hand for an hour can also diminish your ability to get some rest.

Do not leave your tack on the ground where your horse could step on it. Take care if allowing your horse to graze with the bit in its mouth as your horse may step on the reins and hurt its mouth.

Other Considerations

When stopping on a hill to rest, turn your horse crosswise to the hill, if the terrain is safe, so your horse doesn't have to work so hard to

stand. As other riders approach, move to the side of the trail or move on.

In general, trotting fast or galloping on steep ascents, descents, and exceedingly rough ground is hard on your horse and is poor horsemanship. We should always think about conserving our horse so he can go on again tomorrow and the next day and the next.

You may lead your horse by the reins on the trail for such things as lining up at a P&R, leading your horse to the veterinary judge for a metabolic exam and in-hand trot, executing an obstacle in-hand as directed by a judge, and opening a gate. You can open a gate in hand if your horse is responsive to you and you display skill in doing so and don't let your horse tangle or step on the reins.



Leading with both hands on the reins, 2017 Indian Territory CTR, Oklahoma. Photo by Mike Collins.

If it is a chilly or rainy day, your horse could benefit from the use of a rump rug (cover over the rump; can be rolled up and tied to cantle when not needed) especially when the large rump muscles are not working hard, such as at a P&R or lunch stop.

Back in Camp

If you paced your horse well throughout the ride and walked the last 2 miles/1 mile into camp, your first job is to make your horse comfortable. Most riders dismount after the timer has timed them in and loosen their horse's cinch for the walk back to their campsite. Once there, some riders immediately pull the saddle after tying their horse to the trailer, others leave it on. Then they give their horses down time to relax, drink and munch on hay while they put gear away and have a bite to eat. Next, it is time to prepare for the in-camp veterinary exam.

If you have hurried into camp, your horse will cool down better and the legs will get less stiff if you walk in hand for a while rather than just leaving your horse standing tied to the trailer. After your horse has cooled down some, offer water, then hay first before grain.

For the in-camp veterinary exam, groom your horse according to weather conditions. If it's hot, hosing or sponging would be fine. Be sure your horse is dry before heading to the veterinary check. A wet back could result in a false sore back response to palpation. If it's cold, putting on a cooler or horse sheet until the horse quits sweating would be more appropriate. At the minimum, be sure the legs are clean, the feet picked out, girth area cleaned, and any sweat marks and salt accumulations brushed out.

Finally, before heading to the briefing for the next day's ride or before heading to bed, many competitors walk their horses to remove any developed stiffness and to let them enjoy mental relaxation while grazing, too.

Ice and Ice Water

It is permissible to use ice and ice water on your horse. Cooling methods can include such means as cooling packs, standing the horse in buckets of ice water or in a cold creek, or for the rider to hold ice on the legs. Ice boots and other means of applying ice/ice water/cooling packs topically are allowed by various attachment methods whose primary function is to stabilize the ice/cooling method in place.



How long is best to attach ice? There doesn't seem to be a firm answer. Most of the research on icing in horses has been done in laminitis cases with horses standing in ice water for 48 to 72 hours with no ill effects. Following an injury, the consensus is to alternate



**NOT
ALLOWED**
Devices that
circulate ice water
or
provide compression



15 to 20 minutes on and off. After strenuous exercise, a one-time application for 30 minutes may be sufficient.

You may not use any device that circulates the ice water, cools below 0 degrees Celsius (32 degrees Fahrenheit), or offers compression.

Some veterinary judges prefer that you wait until after the end-of-the-day exam, so ask if you are unsure.

Leg Wraps

Leg wraps are not allowed during competition. Improperly applied leg wraps, those that are too tight, left on too long, or put on over medications, can do more harm than good.

Recap

Trail Care

- ☐ High heat and humidity compromise your horse's cooling ability
- ☐ Clip major arterial areas
- ☐ Put water on the front part of your horse at water crossings to enable evaporative cooling while moving down the trail
- ☐ Scrape water off a hot wet horse if standing at a P&R
- ☐ At a P&R on a hot day, assist your horse's cooling by cooling with water, fanning and removing the saddle
- ☐ If held at a P&R, add 10 minutes to your minimum and maximum ride time for each hold
- ☐ For your horse's safety, no recovery after two holds at a P&R is a mandatory pull
- ☐ Too much sponging on a cool day can chill a horse
- ☐ A vet might do a quick hydration and soundness check after a P&R
- ☐ At lunch, let your horse get a good drink (offer more than one) and allow to graze, remove bit
- ☐ Use lunch to rest yourself
- ☐ Back in camp, attend to your horse and yourself, then prepare for the afternoon vet exam
- ☐ Walk your horse to relieve stiffness and swelling before the vet check and before heading to bed
- ☐ Apply ice or ice water with methods other than circulating or compression devices

Trail Safety and Courtesy

*Contributed by Jean Green
Horsemanship Judge, Region 4, and
Bev Roberts, Competitor, Region 4*

*Safety and
courtesy are
interwoven.*

Safety and courtesy tend to be interwoven in this category in that courtesy is practical from a safety standpoint and vice versa. In general, an attentive competitor who understands the safety aspects of horsemanship and who respects the rights of others will ride accordingly.

Riders travel at different speeds, stop at different times and encounter other trail users all the time. Courtesy goes a long way in making a competition or an outing enjoyable for everyone! Here are some tips.

Maintaining a Safe Distance

A long established standard says that a rider should keep at least one horse-length behind another except when overtaking to pass. A minimum of two horse-lengths, however, might be necessary on uneven terrain to allow for better visibility and reaction time.

Make an effort not to crowd with other horses and riders on the trail. Your horse could pick up a "herd effect" of excitement in a group. One horse could easily kick another horse or rider. It is also very frustrating to a judge to try to evaluate riders in a bunch. Because the judge cannot evaluate the individuals except for the first one, the judge may fault each of the bunched up riders behind the first rider.



A safe distance, 2013 Air Force Academy, Colorado. Photo by Gary Walls.

Passing Other Horses and Riders

Always make your presence and intent known to the rider you are overtaking. Do not gallop or charge up behind other riders. Slow down, make sure the rider in front has control, and then **ask** to pass, telling the rider on which side you intend to pass, right or left. Say something like, "May I pass you on the left?" The rider in front of you

may want to pull off the trail first, so wait for the rider to answer your request. Passing at an excessive speed or at a very narrow spot in the trail is inconsiderate and presents a potential hazard to both parties if the passed horse gets overexcited.

After passing another rider, move on down the trail far enough to not interfere with the horse and rider. Horses usually slow down once they are in front, so a horse that may have been rushing along behind another team, may suddenly slow down and hinder the progress of the passed team once in front.

Meeting Other Horses and Riders

On a narrow trail, if those approaching are a larger group than your own, find a place to pull off the trail and stop so they can pass by. It never hurts to chat with them, too, so everyone is relaxed.

Passing or Meeting Pedestrians or Bicyclists

If approaching from behind, always make your presence known before you get close to people. They may not hear you approaching and will appreciate not being startled. This is especially important if



A friendly meeting with bikers who pulled off trail for equestrians to pass. 2016 Colorado Trail CTR, Colorado.
Photo by Gary Walls.

a person has a tall backpack and does not look like a “human” to your horse. Getting the person to say something reassures your horse that these are indeed humans. Some may have dogs with them and will want to corral them before you get close.

As soon as you see someone coming toward you, holler “hi” so they will say “hi” back and your horse can identify them as “humans.”

Most pedestrians and bicyclists will move to the side of the trail when they

know you are approaching, to let you pass. If not, ask them to do so for your safety and theirs.

Meeting Motorized Vehicles

As soon as you see people on vehicles approaching, wave so they will wave back thus acknowledging that they have seen you.

Most bikers will move to the side of the trail and turn off their

engines to let you pass. When passing, be sure to smile and thank the bikers for stopping and turning off their engines.

If you encounter someone who doesn't know trail etiquette when meeting horses, stop, signal them to stop (flat of the hand up facing them) and to cut their engines (slitting your throat move with your hand). As you are passing the stopped vehicle(s), you have the opportunity to explain trail etiquette to them and thank them for their courtesy.

If you encounter someone who has no regard for etiquette or your signals and keeps coming, *especially if your horse is NOT used to the type of vehicle approaching*, this is not the time for a training session; dismount and lead your horse off trail (or ride off trail and dismount) and steady your horse.



Photo by Quadinsan from Pixabay.

If you are on a hillside, pass on the high side of the trail.

When being passed by a vehicle on a narrow, precipitous road, it is usually safer to move to the inside against the rise of the hill or bank rather than to the cliff-side. Should something startle your horse, you are less likely to plunge over the edge and down the hillside.

Watering

At water spots on the trail, do not crowd other horses and riders. Ask if it is okay to move up and water beside another horse. When your horse finishes, move out of the way, so another horse can drink.

Wait at the water hole until the other horse finishes drinking before you ride off or ask if it will bother the other horse if you move off. Most riders know if their horses will continue drinking when others move past them or move on.

Other discourteous actions are:

- contaminating a common water source (like a watering tub) with a sweaty sponge that may also have chemicals on it from bug spray you used on your horse (some ride chairs designate one bucket or tub just for dunking sponges for cooling your horse)
- mudding up a small watering hole
- allowing your horse to paw the water

Obstacles

At obstacles, judged or not, it is good trail manners to wait on the far

side until the next horse completes it. Then the first horse can proceed while the second waits for the third, and so on. This applies as long as the next horse is within close range. Likewise, don't leave your position at the P&R stop while the next horse is having its pulse



Rider on the right is waiting for the rider on the left to negotiate the gate obstacles at the 2012 Willow Springs CTR, Colorado. Photo by Gary Walls.

taken (it will probably rise if you walk off). If you leave another horse anywhere on the trail, first ask the other rider if it's all right.

By code of trail etiquette, if you open a gate, close the gate. If a gate is open, leave it open. If it is closed, leave it closed after you pass through. However, with the approach of a group of riders, the individual who opens the gate may leave after giving clear instructions to the others to close the gate.

Stallions

Riders of stallions should keep their horses at a safe distance from other horses when necessary. Stallions must have at least one yellow ribbon in their tails at all times. Some riders also like to put yellow ribbons in the stallion's forelock and mane. In this way, those following, meeting or seeing a horse from the side know if it is a stallion.

Likewise, a horse known as a "kicker" should wear a red ribbon in its tail. All riders, however, share some responsibility in making themselves alert to potential behavior problems of *any* horse.

Listening to Instructions

Never assume anything! Don't assume that the person in front of you went through the obstacle correctly. Don't assume at a veterinary check that every veterinary judge wants you to trot out, trot a circle to the left, trot a circle to the right and then trot back. Don't assume that the times figured for you on the ride map are correct.

Listen to the person giving you instructions. Ask questions if you don't understand what they want. Did the person say step over the log or straddle the log, sidepass left or was it sidepass right, stop at

the bottom of the gully or just before the bottom? Did the judge say two circles in each direction, circle right first, trot a figure eight?

Calculations of ride times are fertile ground for human error. Did you make the error when double-checking the times or did the trail master make an error? Did you forget to add in 15 minutes for that P&R? You were the first one out this morning and now 2/3rds of the way into the ride everyone is passing you. Whose timing is out of whack?

Listen to be sure of what you are doing or going to do, relax, and enjoy the ride!

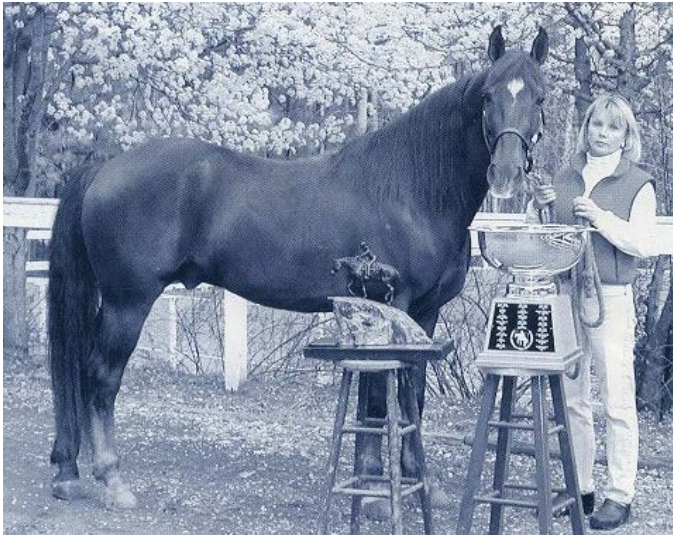


Rider in background receiving instructions from a judge's assistant while rider in foreground crosses the bridge at the 2016 Colorado Trail CTR, Colorado.
Photo by Gary Walls.

Recap

Trail Safety and Courtesy

- ☐ Safety and courtesy are interwoven
- ☐ Never assume anything
- ☐ Maintain a safe distance from others including pedestrians and vehicles
- ☐ Stay on the high side when meeting or passing vehicles on a hillside trail or road
- ☐ Avoid crowding at water holes
- ☐ Avoid contaminating the water
- ☐ Wait quietly while the rider behind you executes and obstacle
- ☐ Keep a safe distance from stallions and kickers
- ☐ Listen to instructions



High
Mileage
Horse –
11,600
Competition
Miles
**Chargers
Rampage**
(Missouri
Fox Trotter)
– Rider,
Lisa Brooks
Photo
supplied.



High Mileage Horse –
11,480 Competition Miles
Swiss Mocha (Grade) –
Rider, Paula Riley
Photo by
Jim Edmondson

Leisure Division Scorecard

The judges evaluate horses on trail ability and manners. They evaluate riders on equitation and their partnership with the horse. Safety is scored. The horse and rider compete as a team, with their combined positive scores used to determine placements. See the LeD scorecard on the following pages.

See the comments listed under the Rider's Scorecard for aids in grooming, in-hand presentation, tack and equipment, and stabling earlier in Part 4. In the LeD, stabling is evaluated for safety but not scored; i.e., the judge reviews your setup to give you tips on safe stabling.

Scoring is based on a system of positive responses for performance and achievement. Up to five (5) trail observations may be conducted during the course of the ride. Each observation is worth a total value of ten (10) points; the rider can earn up to five (5) points and the horse can earn up to five (5) points, with the points added together for a total team score on each observation. There are times the rider does everything "right", however the horse just isn't cooperative, so the rider may score a 5, while the horse scores a 1 for a total team score of 6 on that observation. There may be times where the horse is willing, quiet and responsive, but the rider is giving confusing cues so the point values may be opposite of the previous example.

Timing and Pacing

Please see the section on Timing and Pacing earlier in Part 4.

The Ride Briefing

Please see the section on The Ride Briefing earlier in Part 4.

Trail Ability and Manners

Trail Ability/Manners for the trail horse presumes, above all, that it shall be a safe horse! Then, consideration may be given to the features that make a horse pleasant during the rigors of traversing challenging terrain.

A pleasant horse performs the task without undue harassment to or from the rider; it allows the rider to relax, subsequently see the scenery, and enjoy trail riding even more. The scoring of manners should reflect this priority.

OBSERVATIONS						
Horse's Trail Ability & Manners and Rider's Equitation & Comr						
		Declined 0	Tried, DNC +1	Needs Work +2	Satisfactory +3	Good Job +4
1	Horse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Rider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Comments:				
2	Horse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Rider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Comments:				
3	Horse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Rider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Comments:				
4	Horse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Rider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Comments:				
5	Horse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Rider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Comments:				

Rider #	Horse Name	Breed	Age	Ride Name
	Rider Name			Judge (s)
	TYPE: B1-Sat B2-Sun DIV: LEISURE CLASS: Experienced Adult Junior DO			

Judges: VERIFY the accuracy of TYPE, CLASS and DO | Competi

Communication		
Excellent +5	Partnership (Optional)	Points
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> + <input type="checkbox"/> -	0 - 5 Horse 0 - 5 Rider
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> + <input type="checkbox"/> -	
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> + <input type="checkbox"/> -	
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> + <input type="checkbox"/> -	
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> + <input type="checkbox"/> -	
Total Observation Points 0 - 10 per obstacle		

LEISURE DIVISION SCORECARD



Surface and Soundness				
	Check In	Check Out		
Mouth				
Back / Girth				
Legs				
Soundness	Permitted to start <input type="checkbox"/>	No Change <input type="checkbox"/> CO <input type="checkbox"/> Pull <input type="checkbox"/>		

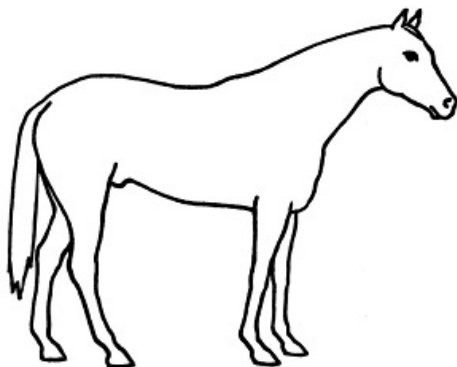
Pulse & Respiration				
	Out (Scored)	1st Hold	2nd Hold	Points
Pulse				0 - 5
Respiration				0 - 5
Holds	No Holds +10	1 Hold +5	2 Holds 0	0, 5, 10
P&R Points 0 - 20 Refer to back for scoring				

Safety & Courtesy	
Comments:	
Safety Points 0 - 5	

Name	Date	Region	Penalty Points	SCORE
[Signature]			Penalty Point Explanation	PLACE

petitors: REVIEW ADDITION AND REPORT ERRORS TO MANAGEMENT

10/14/2020



Scoring Guide

LEISURE SCORING 2020 Revision

Point assignment is at the discretion of the judge.
Missed observation: Award 1 point for the worst performing test.

SURFACE ASSESSMENT

Note: Findings are to be noted and discussed but not scored. Severe findings may be reason to pull at the judge's discretion.

Mouth	Evaluate for rubs from bit or chin strap.
Girth	Observe for any swelling, chafing or rubs.
Back	With a flat hand, feel across the top of the back and observe for any reaction.
Legs	Observe for interference and/or swelling. This is not a hands on evaluation.

PULSE & RESPIRATION

Pulse	
Beats	Score
12 or less	+ 5
13	+ 4
14	+ 3
15	+ 2
16	+ 1
17 or higher	+ 0

Respiration	
Breaths	Score
9 or less	+ 5
10-13	+ 4
14-17	+ 3
18-21	+ 2
22-25	+ 1
26 or higher	+ 0

Holds	
Number	Score
No Holds	+10
1 Hold	+ 5
2 Holds	+ 0

An incoming courtesy Pulse & Respiration (P&R) may be taken but will not be scored. The initial outgoing P&R is scored as above. These numbers are based on a 15 second count.

Holds: If the scored P&R is at 17 or higher for either pulse and respiration, the equine will be held for an additional 10 minutes. Another reading will be taken on both the pulse and respiration and if either is still 17 or higher, the equine will be held for another 10 minutes. It will again be checked after this final hold.

Pull if not recovered (below 17 on both pulse and respiration) after two holds beyond the scored P&R (total of 30 minutes of recovery time including the initial P&R).

Colic, Tie-Up, Thumps: Pull - Recommend Immediate Medical Attention

SOUNDNESS

Judge will observe an in-hand, down-and-back, and up-and-back. The judge should not diagnose any type of lameness is okay to start at check in (lameness not on straight line), and the same or worse at check in should be made to award completion mileage ride as described below.

Lameness G

Grade 1: Lameness is difficult to observe consistently apparent regardless of circuit (e.g. under saddle, circling, inclines, hard

Grade 2: Lameness is difficult to observe when trotting in a straight line, but consists under certain circumstances (e.g. weight inclines, hard surfaces, etc.).

Grade 3: Lameness is consistently observed under all circumstances. Do not allow to start. If observed during ride, the equine should be pulled. If observed at final check, Completion On granted at the discretion of the judge with

Grade 4: Lameness is obvious at a walk.

Grade 5: Lameness produces minimal work in motion and/or at rest, or a complete inability to move.

PULL CO

Strike a diagonal line across the face "PULL" and one of the following pull codes.

Lameness: Any degree of lameness.

Metabolic: Non-recovery, colic, thump.

Surface Factors: Wounds, sore back.

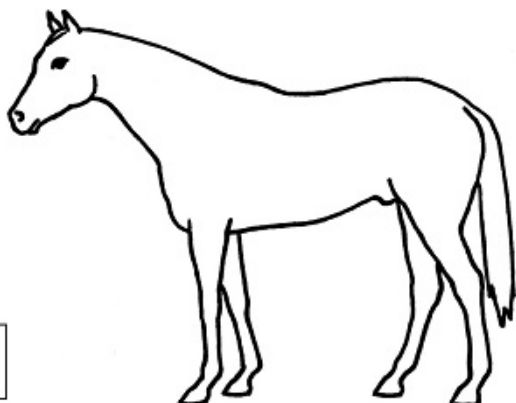
Rider Option: Rider illness, injury.

Disqualification: Rule violations, disqualification.

elines



RECARD ion



cretion of the judge.
1 point less than the
ig team.

NESS

id-back trot at check in and check out.
mess but merely decide if the equine
at observable or consistent on the
check out. If the latter, a decision
ileage only or to pull the team from the

is Grades

erve and is not
:circumstance
hard surfaces, etc.).

serve at a walk or
sistently apparent
ight carrying, circling,

bservable at a trot
r to start the day!
ould be pulled.
s Only may be
with card scored.

alk.

al weight-bearing
te inability to move.

**PULL
or
COMPLETION
ONLY (CO)**

PULL

PULL

CODES

face of the card. Write the words
ull codes:

ness Grade 3 or above.
thumps, tie-up, etc.
: backs, rubs, etc.
rry, fatigue; weather, etc.
s, dangerous, etc.

TRAIL ABILITY / MANNERS

Equines may earn up to 5 points on each observation.

Responsiveness is rewarded so an equine that is attentive to the trail and rider is scored higher than one with mild, moderate or severe disobedience. An equine that displays excellent skill during a maneuver should earn a better score than one that has difficulty or shows resistance. A quiet equine is awarded higher points than one that displays buddyding, head tossing, shying, calling, etc.

Obvious kick or bite at judge, rider or handler
Fractious, Unruly, Dangerous

**0
DISQUALIFY**

RIDER'S EQUITATION & COMMUNICATION

Riders may earn up to 5 points on each observation.

Equitation and communication may be observed during ride-through observations or when asked to stop and perform a task.

On ascending, descending and level terrain, the judge should reward good balance and lightness of seat, soft cues, proper body and leg position, good control, and effective hands and aids.

When negotiating obstacles, riders should display the desired control, cues, timing and form to enhance the equine's performance and teamwork.

SAFETY & COURTESY

Riders may earn up to 5 points for overall attention to trail safety and courtesy during the ride.

Maintaining a proper distance between equines, responding to directions, being safe with equine, self and others, and considerate when passing on the trail or waiting at an obstacle will earn higher scores. Good trail etiquette is rewarded.

1/26/2020

The traits considered important are: standing quietly for an exam or P&R check, standing for the mount, readily responding to aids and cues, being respectful and responsive to the rider, willingly stepping through obstacles, lightly traveling at the rider's set pace, trotting in hand willingly and safely, and socializing with other horses.

Dangerous behavior by the horse may be grounds for removal and disqualification from the ride. A fractious or unruly horse, especially at exams or P&R stops, will not be allowed to compete. It endangers the volunteer help, other competing horses, and riders.

For more reading, see Trail Ability and Manners under the Horse's Scorecard earlier in Part 4.

Trail Equitation

The purpose of good trail equitation is to ease the horse's effort in carrying the rider over a long distance and to enable the horse to perform smoothly and safely, thus conserving energy and preserving soundness as much as possible throughout the day's course.

From that functional definition, the judges evaluate trail equitation based on its relevance to the sport of NATRC distance riding. The competitor should use a riding form appropriate for preserving the horse's soundness and conserving the horse's energy as much as conditions permit. Related to that is judging the rider's endeavors to deal with horse manners to accomplish smoothness in horse performance and safety for self and others.

For more reading, see the sections on the mount, ascents, descents, down/up transitions, and "obstacles" under The Rider's Scorecard earlier in Part 4.

Surface and Soundness

The Surface and Soundness section is not scored. It is designed to reflect educational comments, to indicate if the team is permitted to start, to note if there is no change in surface factors from check in to check out, or if the team is determined to be Completion Only (CO) or Pulled.

The judge will watch your horse trot straight out and back to be sure it is sound to start.

Please read, "In Hand Presentation" under The Rider's Scorecard earlier in Part 4 for safety aspects of this examination.

Pulse and Respiration

The Pulse & Respiration section is scored and worth a value of twenty (20) points. The pulse is worth five (5) points, the respiration

is worth five (5) points, and absence of holds is worth ten (10) points. Criteria for accruing the maximum point value are a pulse that is 12 or less and a respiration that is 9 or less in a 15-second count.

For more reading, see Pulse and Respiration under The Horse's Scorecard earlier in Part 4.

Safety and Courtesy

Safety and courtesy tend to be interwoven in this category in that courtesy is practical from a safety standpoint--and vice versa. In general, an attentive competitor who understands the safety aspects of horsemanship and who respects the rights of others will ride accordingly. Safety and courtesy are scored at the end of the ride. If the team had no safety infractions during the ride, they are granted the full five (5) points. If safety issues were noted (i.e., crowding, bunching, dropping reins, moving horse too close to judge or others for safety etc.), the specific comments are entered and an appropriate score given.

For more reading, see Trail Safety and Courtesy under The Rider's Scorecard earlier in Part 4.

Recap

Leisure Division Scorecard

- ☐ Horse and rider evaluated as a team
- ☐ Positive scoring system – everyone starts at zero and points added based on team performance
- ☐ Ride briefing is before ride start
- ☐ Surface and soundness is not scored, it is educational
- ☐ Safety and courtesy are interwoven



High Mileage Horse – 10,210 Competition Miles
Winchester Charm (Half-Arabian) – Rider, Lucy Hirsch
 Photo supplied.

High Mileage
 Horse – 10,040
 Competition
 Miles
**Pal's Handy
 Man** (Quarter
 Horse) – Rider,
 Charlie Crider
 Photo by Nancy
 Sluys



AWARDS CEREMONY

Completing a ride is an accomplishment in itself. You have studied, practiced and conditioned yourself and your horse for this event. For every mile of competition, you have put in an untold amount of miles in preparation. Your horse looks great, although tired, you feel good and you have done what few people even dream of doing.

*Completing a ride is an accomplishment in itself.
Winning an award is a bonus!*

After your horse passes its final veterinary exam, you will turn in your numbered bib or vest.

Within a few hours after the last horse has its last veterinary exam, someone probably drives through camp blowing a car or truck horn. Like a town crier from two hundred years ago, they are calling you to the awards ceremony.

Here the judges may give a final recap of when they saw all of the competitors on the trail, what they were looking for, and how the horses fared as a group. The ride chair moves quickly into presenting the awards, as they are fully aware that most of the riders will be heading home right after awards.

Starting with horsemanship and working from Novice, through CP and then Open divisions, the ride chair announces and hands out the awards for 1st through 6th places in each. It is a happy time for all as friends congratulate friends and more than a few people are surprised at how well they have done.

Next come the horse awards in the same sequence. If there are high point breed awards, management then hands them out.

Following that is the icing on the cake – the announcing and awarding of the Sweepstakes horse (highest scoring horse of all the classes) in the Novice, CP and Open Divisions.

Awards for the LeD teams in each class may be presented before the other divisions working from junior through experienced classes with awards for 1st through 6th place.



High Mileage Horse – 9,380
Competition Miles
Mingo Star (Grade)
Rider Gail Milner
Photo supplied.



High Mileage Horse – 9,100
Competition Miles
Windstorm Sienna (Morgan)
Rider, Wayne Tolbert
Photo supplied.



High Mileage Horse – 8,830
Competition Miles
Prince Alla Ba Ha+// (Arabian)
Rider, Ellen Lovett
Photo by Angel Middour



High Mileage Horse – 8,440
Competition Miles
Mahra Khan (Half-Arabian)
Rider, Milne Parish
Photo by Cristy Cumberworth

Conclusion

5

Now you know the basics of what an NATRC competition is all about: the preparation, the competition, and the judging. This *Rider's Manual* gives you a comprehensive basis from which to start. It does not, by any means, cover everything that you will encounter on the trail or in competition.

The best way to learn more about competing is to come see for yourself what a ride is like. Volunteers are always welcomed and encouraged to participate in the rides. There are numerous opportunities to learn more by helping out at a ride: marking trails, being on a P&R team, being a judge's secretary, timer, or one of many other important positions necessary for a ride to run smoothly and successfully.

Or, you can just sign up to compete. Many rides have special mentor programs for first time competitors, and even at rides that do not, you will find that the experienced competitors are typically very friendly and helpful. Judges, too, will take the time to answer your questions and give you plenty of helpful advice.

This is what makes this sport so enjoyable – through competition – learning new skills and enjoying the fellowship of other enthusiastic trail riders, experiencing the world of nature and developing a bond with your horse.

For more information on conditioning, riding, and training, see the list of resources in Appendix E.

We wish you many happy miles on the trails. Take pride in your ride! We invite you to “Come Ride with Us” in NATRC!



High Mileage Horse – 7,660
Competition Miles
Summer (Grade)
Riders, Betty and Ken Wolgram
Photo by Gary Walls



High Mileage Horse – 7,470
Competition Miles
Desert Reinbeau (Mustang)
Rider, Angie Meroshnekoff
Photo by Cristy Cumberworth



High Mileage Horse – 7,220
Competition Miles
Ramel (Grade)
Rider, Ronald Williams
Photo supplied



High Mileage Horse – 7,170
Competition Miles
Barthart (Arabian)
Rider, Betty Young
Photo by Anthony Chalot



High Mileage Horse – 7,120
Competition Miles
Dixie Aztec (Arabian)
Rider, Raymond Brooks
Photo by Stewart Spears



High Mileage Horse – 7,080
Competition Miles
Treble's Tempt Me (Morgan)
Rider Elizabeth Kendall Spilker
Photo supplied.



High Mileage Horse – 7,050
Competition Miles
Khapital (Arabian)
Rider, Debbie Jones
Photo supplied.

APPENDIX A: Packing & Leaving Checklists

HORSE

Supplies

- ☐ Blanket (heavy)
- ☐ Bridle, reins
- ☐ Buckets
- ☐ Crupper, breast collar
- ☐ Electrolytes
- ☐ Fly leggings
- ☐ Fly mask & sheet
- ☐ Fly spray
- ☐ Girth or cinch & spare
- ☐ Grain & scoop
- ☐ Halter & lead & spares
- ☐ Hay
- ☐ Hay bags
- ☐ Hoof boots
- ☐ Longe line or ~12' long lead line
- ☐ Manure fork & rake
- ☐ Rain sheet, stable sheet
- ☐ Ribbon—red/yellow, if needed
- ☐ Saddle
- ☐ Saddle pad & spare
- ☐ Saddle/pommel/cantle bags
- ☐ Saddle soap
- ☐ Salt
- ☐ Shipping boots/wraps
- ☐ Wand/whip
- ☐ Vitamins & minerals

Grooming

- ☐ Brushes (assorted)
- ☐ Clean rags
- ☐ Hoof picks
- ☐ Mane/tail comb & brush
- ☐ Rubber bands for braiding mane
- ☐ Shampoo
- ☐ Sponges
- ☐ Sweat scraper

Repairs

- ☐ Duct tape
- ☐ Electrical tape
- ☐ Leather thongs
- ☐ Leather punch
- ☐ Snaps/rings

Farrier

- ☐ Hoof rasp
- ☐ Nippers
- ☐ Small hammer

In Glove Box

- ☐ Coggins test papers
- ☐ Directions & map
- ☐ Health certificates
- ☐ Registration papers
- ☐ Other state required papers

First Aid Kit - Equine

- ☐ Adhesive tape
- ☐ Assorted sizes of needles & syringes
- ☐ Banamine
- ☐ Betadine scrub
- ☐ Bute paste
- ☐ Cotton padding
- ☐ Emergency electrolytes
- ☐ Epsom salt poultice
- ☐ Eye ointment
- ☐ Gauze sponges
- ☐ Injectable antibiotic
- ☐ Leg wraps
- ☐ Non-stick pads
- ☐ Scissors
- ☐ Tweezers
- ☐ Vet wrap
- ☐ Wound spray/ointment

Other

- ☐
- ☐
- ☐

RIDER

Easy Access

- ☐ Camera
- ☐ Flashlight
- ☐ Rain gear

Camping

- ☐ Blankets, sleeping bag
- ☐ Cot, foam pad, mattress
- ☐ Folding chair
- ☐ Hatchet, hammer
- ☐ Lantern
- ☐ Pillow
- ☐ Rope
- ☐ Rug
- ☐ Tent, stakes
- ☐ Trash bags
- ☐ Waterproof tarp

Personal

- ☐ Alarm clock
- ☐ Batteries for electronics
- ☐ Boots - riding, rain, mud
- ☐ Comb & brush
- ☐ Deodorant
- ☐ Gloves - riding & warm
- ☐ Hats - sun & warm
- ☐ Helmet & accessories
- ☐ Insect repellent
- ☐ Jacket
- ☐ Jeans
- ☐ Lotion
- ☐ Makeup
- ☐ Medications - pain
- ☐ Medications - prescription
- ☐ Nail clippers & file
- ☐ Pencils, pens & notepad
- ☐ Poison ivy/oak cream
- ☐ Rain gear
- ☐ Ride notebook
- ☐ Riding pants
- ☐ Salt tablets
- ☐ Shampoo
- ☐ Shaving gear
- ☐ Shirts-long & short sleeve
- ☐ Shirts - T & sweat
- ☐ Shoes
- ☐ Shorts
- ☐ Soap
- ☐ Spray conditioner
- ☐ Sweat pants
- ☐ Sweater
- ☐ Sun-block lotion
- ☐ Tissues
- ☐ Toilet paper
- ☐ Toothbrush & paste
- ☐ Towels & washcloths
- ☐ Tweezers
- ☐ Underwear
- ☐ Weather radio

To Take on the Trail

- ☐ Canteen/water bottles
- ☐ Cell phone
- ☐ Electrical tape
- ☐ Electrolytes
- ☐ Fan
- ☐ First aid kit (small)
- ☐ GPS
- ☐ Halter
- ☐ Heart Rate Monitor
- ☐ Helmet
- ☐ Hoof pick
- ☐ Horse's lunch
- ☐ Knife
- ☐ Lead rope
- ☐ Leather thongs
- ☐ Lip balm
- ☐ Lunch, unless delivered
- ☐ Nylon ties
- ☐ Saddle/pommel/cantle bags
- ☐ Snacks - human & horse
- ☐ Sponge on a string
- ☐ Watches - 2
- ☐ Wire cutter

Food & Prep Supplies

- ☐ Aluminum foil
- ☐ Condiments
- ☐ Cook stove
- ☐ Cooking utensils
- ☐ Cooler
- ☐ Dish cloth & towel
- ☐ Dish soap
- ☐ Drinks
- ☐ Food/meals
- ☐ Ice
- ☐ Matches or lighter
- ☐ Paper bowls, plates, cups
- ☐ Paper towels
- ☐ Plastic storage containers or bags
- ☐ Plastic utensils

- ☐ Potluck item
- ☐ Pots/pans
- ☐ Sharp knives
- ☐ Snacks
- ☐ Spices
- ☐ Trash bags
- ☐ Water

Trailer Supplies

- ☐ Blankets
- ☐ Electric extension cord
- ☐ Electrical plug adapters
- ☐ Electric heater
- ☐ Fire extinguisher
- ☐ First aid kit
- ☐ Hangers
- ☐ High line equipment
- ☐ Horse divider panels
- ☐ Horse water
- ☐ Lantern
- ☐ Pillows
- ☐ Portable fence
- ☐ Porta-pottie - empty
- ☐ Propane
- ☐ Propane heater
- ☐ Quilt / blanket
- ☐ Sheets
- ☐ 6 T-posts
- ☐ T-post driver
- ☐ Trailer ties
- ☐ Trailer wheel chocks
- ☐ Wheel well covers
- ☐ Wire (extra)
- ☐ Wire ties

Leaving trailer/truck check

- ☐ All items loaded
- ☐ Brakes checked
- ☐ Extra oil & fluids
- ☐ Fluids OK
- ☐ Fuel OK
- ☐ Hay & feed loaded
- ☐ Hitch on
- ☐ Hitch pin locked
- ☐ Horse doors secure
- ☐ Horse(s) in and tied
- ☐ House-sitter keys
- ☐ Interior gates latched
- ☐ Jack support boards in
- ☐ Lights hooked up
- ☐ Light harness secured
- ☐ Lights checked & working
- ☐ Paperwork in glove box
- ☐ Tire change tools & jack loaded
- ☐ Tire inflation OK
- ☐ Tool box on board
- ☐ Trailer doors locked
- ☐ Vents/windows adjusted
- ☐ Wallet/purse/checkbook in cab
- ☐ Wheels unblocked and chocks loaded

APPENDIX B: Ride Quick Tips

In-Hand Presentation

– Grooming

- No parasites (bot eggs)
- Clean nostrils
- No residual sweat marks
- Clean hooves
- Rider # on left side of halter

– Hands On

- Avoid holding on to halter or snap
- Fold excess lead and keep off the ground
- Keep two hands on lead
- Stand to side of horse
- Stand on same side as vet
- Maintain attention and control of horse

– Trot Out

- Run beside horse
- Look ahead, not at horse
- Hold lead 12"-18" from horse
- Two hands on lead
- Turn horse away from you
- Large circles
- Maintain consistent gait

Tack & Equipment

- Whip – OK to use at check-in and/or check-out
- Proper saddle, bit, curb chain, & halter/bridle fit
- Halter buckle end fastened through keeper
- Cinch clean; not too tight or too loose

- Snug rear cinch + connector strap
- Saddle pad clean and in position
- Breast collar not too tight or too loose
- Clearance between withers and pommel

Stabling

- Blanket straps snug
- Quick release knot locked
- Stallions double-tied
- Rider # visible on trailer, halter, bridle
- Ground free of hazards
- Hay net not too low when empty
- Buckets secured
- Evidence of food
- Access to water
- Adjust rope snap so horse's nose reaches ground
- Don't tie two horses too close together
- Equipment away from horse
- Cover/ protect latches sharp corners
- Ribbons in tail if needed

Trail Equitation

- Light in saddle
- Soft rein contact
- Ankles relaxed; heels slightly down
- Balanced side to side
- Post or soft sitting trot
- Light/ quiet/ low hands
- Subtle leg cues

Mount

- Don't lead with reins around neck
- Settle horse
- Adjust tack
- Rein contact/ control
- Square up horse
- Use terrain
- Try to not pull horse off balance
- Don't dwell in stirrup
- Clear rump with leg
- Settle lightly in saddle
- Settle before cueing horse to walk off

Uphills

- Angle upper body forward from hips
- Transfer some weight through thighs to stirrups
- Be light in saddle, not out of saddle; Don't stand up
- Maintain soft rein contact
- Allow horse to use head for balance
- OK to hang onto mane

Downhills

- Don't lean back; relax; carry weight on thighs, not on seat bones
- Avoid upper body swaying side-to-side
- Maintain soft rein contact

Backup

- Think Stop, Settle, Slow
- Check behind
- Soft, subtle hands
- Give and take with reins
- Leg aids for direction control

Obstacles

- Stop, settle, slow
- Look ahead, not down

P&R Check

- Line up parallel to next horse
- Maintain contact/ control
- Remain quiet; low energy
- Encourage horse to relax
- Sponge/ cool horse as appropriate
- Loosen cinch slightly
- Near stirrup out of way
- Lead away with permission of next rider
- Follow directions to proceed

Trail Safety & Courtesy

- Rider # visible
- Don't crowd
- Approach other groups slowly
- At least one horse length between horses
- Pass with permission, at a walk or slow trot
- After passing, move on to create a quiet pocket
- Wait for next horse at obstacle/ gate/ etc.
- Careful not to spook others with your actions

APPENDIX C: Timing Chart

SPEED (mph)														
	3	3.25	3.5	3.75	4	4.25	4.5	4.75	5	5.25	5.5	5.75	6	
DISTANCE (miles)	.1	2	2	2	2	2	1	1	1	1	1	1	1	1
	.2	4	4	3	3	3	3	3	3	2	2	2	2	2
	.3	6	6	5	5	5	4	4	4	4	3	3	3	3
	.4	8	7	7	6	6	6	5	5	5	5	4	4	4
	.5	10	9	9	8	8	7	7	6	6	6	5	5	5
	.6	12	11	10	10	9	8	8	8	7	7	7	6	6
	.7	14	13	12	11	11	10	9	9	8	8	8	7	7
	.8	16	15	14	13	12	11	11	10	10	9	9	8	8
	.9	18	17	15	14	14	13	12	11	11	10	10	9	9
	1	20	18	17	16	15	14	13	13	12	11	11	10	10
	2	40	37	34	32	30	28	27	25	24	23	22	21	20
	3	60	55	51	48	45	42	40	38	36	34	33	31	30
	4	80	74	69	64	60	56	53	51	48	46	44	42	40
	5	100	92	86	80	75	71	67	63	60	57	55	52	50
	6	120	111	103	96	90	85	80	76	72	69	65	63	60
	7	140	129	120	112	105	99	93	88	84	80	76	73	70
	8	160	148	137	128	120	113	107	101	96	91	87	83	80
	9	180	166	154	144	135	127	120	114	108	103	98	94	90
	10	200	185	171	160	150	141	133	126	120	114	109	104	100
	11	220	203	189	176	165	155	147	139	132	126	120	115	110
	12	240	222	206	192	180	169	160	152	144	137	131	125	120
	13	260	240	223	208	195	184	173	164	156	149	142	136	130
	14	280	258	240	224	210	198	187	177	168	160	153	146	140
	15	300	277	257	240	225	212	200	189	180	171	164	157	150

How to use the Timing Chart

First, find the speed in MPH, that you are supposed to travel, across the top. Then find the distance in miles along the left hand column. Follow down and across respectively. Where the two lines cross is the number of minutes it will take to go that distance at that speed.

- Example 1: To cover 5 miles of trail at 4 mph, it will take you 75 minutes (min), or 1 hr and 15 min (1:15).
- Example 2: To cover 3.6 miles at 4 mph, first look up .6 miles (you will see it takes 9 min), then 3 miles (45 min) and add them together. At 4 mph, it will take you 54 min to cover 3.6 miles

A Few Suggested Equine First Aid Kit Items



APPENDIX D: First Aid

*Contributed by Bob Dieterich, DVM
Past Veterinary Judge, Region 1*

Most of the situations requiring medical attention on the trail are relatively minor. You can handle these once back in camp or at home. Following are some guidelines that might help you with the more serious situations you may encounter until you can get help.

Every ride has a truck and horse trailer dedicated as the “ambulance” trailer. Should any situation develop requiring pulling your horse from the ride because your horse can no longer continue (injury, severe dehydration, exhaustion), contact the ride chair (see Emergencies below). The chair will arrange for the ambulance to pick you up and take you and your horse back to camp where you can make further arrangements with an on-call vet. Depending on your location, you may have to lead your horse to the pick-up point. If there are safety riders present to assist, they may lead you on a short cut to the pick-up point.

Emergencies

If you do not know how severe an injury is, get help via:

- other riders
- sending a message to the next checkpoint with other riders
- waiting for the safety riders to arrive (if you know they are following competitors on the trail)
- calling the ride chair, if you have a cell phone and there is service.

If you have any doubt about moving your horse, don't.

The veterinary judge's primary responsibility is to judge the ride, but he or she can offer help in an emergency. However, if the veterinary judge must handle an emergency, this may delay other riders or jeopardize the completion of the entire ride.

Every ride has a treatment veterinarian on call.

Wound Care

Puncture Wound

If there is a penetrating hole with little bleeding, wrap the wound with a bandana. If there is profuse bleeding or yellow-colored fluid coming out from a joint, apply a pressure bandage; do not apply a tourniquet.

Wood Puncture

From the pieces outside the wound, try to determine how large of a piece of wood might be in the wound. Don't remove the wood from

the wound without veterinary help – there may be a punctured artery. **Do not** move a horse a long distance with a piece of wood in place.

Punctured Sole

Put on a protective boot such as an Easy Boot to get the horse home or back to camp where you can get veterinary help.

Kick Wound

Evaluate the extent of the damage.

- If it's a muscle injury, hand-walk the horse awhile to see if it's all right to continue.
- If it's a bone or tendon injury, gently clean the wound using clean water from a water bottle or nearby stream.

Hand-walk the horse to see if he's sound to continue.

Dehydration

If the horse has a slow skin-tenting time, slow capillary refill time, sunken eyeballs, dry mouth, is reluctant to move, lethargic, or acts "all-in," get fluids into the horse. If he won't drink, get veterinary help.

Heat Exhaustion

If the horse pants, is disoriented, isn't interested in drinking, stops sweating, or has a rectal temperature above 104 degrees F, sponge the horse's head, underside of the neck plus any areas with large blood vessels (insides of the legs, belly, groin) with water as cold as possible. Scrape the water off and reapply. (Once the water warms up, it loses its cooling effectiveness and actually traps the heat.) Stand your horse in the shade. Fan air over your horse. Offer cool (not icy) water to drink.

If your horse doesn't recover quickly or refuses to drink, get veterinary help.

Tying Up

If the horse has stiff but not cold muscles and is reluctant to move, let the horse rest until it feels like going on. Offer food and water.

If the muscles are hard, tense, cold to the touch, and the horse seems in great pain, you will risk permanent injury if you move your horse. Get veterinary help. If the weather is cool, cover your horse's rump.

Colic

If your horse is in pain, pawing, kicking or stomping, and is experiencing mild discomfort, hand-walk the horse to veterinary help. If your horse has severe discomfort and rolling, send for help and **do not** move your horse.

APPENDIX E: References/Resources

References

Equineews. <http://www.equineews.com/>

Humphrey, Laney. *Choosing a Saddle for Endurance and Long Distance Riding*. Carmel Valley, CA: Filaree Press, 1996.

Loving, Nancy S. *Go the Distance, The Complete Resource for Endurance Horses*. North Pomfret, VT: Trafalger Square Publishing, 1997.

Loving, Nancy S. *All Horse Systems Go. The Horse Owner's Full Color Veterinary Care and Conditioning Resource for Modern Performance, Sport and Pleasure Horses*. North Pomfret, VT: Trafalger Square Publishing, 2006.

NATRC. *Hoof Print*. The official publication of NATRC. Beatrice, NE: North American Trail Ride Conference.

NATRC. *NATRC Judge's Manual*. Beatrice, NE: North American Trail Ride Conference, 2012.

NATRC. *NATRC Rule Book*. Beatrice, NE: North American Trail Ride Conference, 2018.

Snyder-Smith, Donna. *The Complete Guide to Endurance Riding and Competition*. New York, NY: Howell Book House, 1998.

Resources: Additional Reading

Clayton, Hilary. *Conditioning Sport Horses*. Sport Horse Publications. Saskatchewan, Canada: University of Saskatoon, 1991.

Equine Research Center. *Focus on Endurance*. Guelph: University of Guelph, Ontario, 1995.

Hart, Courtney. *Winning Strategies for Endurance Horse Racing*. Write-O, 1997.

Hill, Cherry. *Becoming an Effective Rider – Developing Your Mind and Body for Balance and Unity*. Pownal, VT: Storey Communications, Inc., 1991.

Holmes, Tom. *The Total Rider – Health and Fitness for the Equestrian*. Boonsboro, MD: Half Halt Press. Inc., 1995.

Humphrey, Laney. *Choosing a Saddle for Endurance and Long Distance Riding*. Carmel Valley, CA: Filaree Press, 1996.

Hyland, Ann. *The Endurance Horse, A World Survey of Endurance Riding from Ancient Civilization to Modern Competition*. London: J.A. Allen, 1988.

Ingram, Patricia and Lew Hollander. *Successful Endurance Riding*. Battleboro, VT: The Stephen Greene Press. 1981.

Loving, Nancy S. *Conformation and Performance, A Guide to the Performance Consequences of Common Conformation Points*. Breakthrough. 1997.

Loving, Nancy S. *Veterinary Manual for the Performance Horse*. Grand Prairie, TX: Equine Research Inc., 1993.

Paulo, Karen. *America's Long Distance Challenge, The Complete Guide to the Sport of Endurance and Competitive Riding*. North Pomfret, VT: Trafalger Square Publishing, 1990.

Savoie, Jane. *Cross-Train Your Horse, Book One. Simple Dressage for Every Horse, Every Sport*. North Pomfret, VT: Trafalger Square Publishing, 1998.

Savoie, Jane. *Cross-Train Your Horse, Book Two. Build a Better Performance Horse with Dressage*. North Pomfret, VT: Trafalger Square Publishing, 1998.

Schmidt, Sharon. *Tips for the Long Distance Rider*. Denneport, MA: Graphic Illustrations, 1993.

Snow, David H. and Vogel, Colin J. *Equine Fitness. The Care and Training of the Athletic Horse*. North Pomfret, VT: Trafalger Square Publishing, 1987.

Swift, Sally. *Centered Riding*. North Pomfret, VT: Trafalger Square Publishing, 1985.

Swift, Sally. *Centered Riding 2: Further Exploration*. North Pomfret, VT: Trafalger Square Publishing, 2002.

Tellington-Jones, Linda with Sybil Taylor. *Getting in TTouch*. North Pomfret, VT: Trafalger Square Publishing, 1995.

Wanless, Mary. *For the Good of the Horse*. North Pomfret, VT: Trafalger Square Publishing, 1997.

Wanless, Mary. *For the Good of the Rider*. North Pomfret, VT: Trafalger Square Publishing, 1999.

Wright, Gordon. *The Cavalry Manual of Horsemanship & Horsemastership: Education of the Rider: The Official Manual of the United States Cavalry School at Fort Riley*. Doubleday, 1962

NATRC INVITES YOU TO COME RIDE WITH US!

Have you ever dreamed of spending hours in the saddle, riding your horse through beautiful country, enjoying the wonders of nature and the challenge of the trail? Imagine the feeling of pride and accomplishment as you and your horse complete a long distance ride. The miles shared build a special bond, and the memories you create will last a lifetime. Add to this the experience of making new friendships with others who share a love of horses and trail riding, and you have the essence of what NATRC is all about.

But NATRC is much more than all this. NATRC strives to create an atmosphere of friendly competition, where care of the horse and safety are of utmost importance.

The NATRC Rider's Manual is the first book to cover all aspects of NATRC competitive trail riding. It includes writings from the original NATRC Rider's Guide and contributions from NATRC veterinary and horsemanship judges and competitors. This comprehensive manual tells you what you need to know about preparing yourself and your horse for a competitive trail ride and what to expect at that ride. This is an excellent resource for trail riding, with sections on care and training of the trail horse, riding skills, tack and equipment, trail equitation, feed and nutrition, camping with your horse, hoof care, and conditioning.

OUR MISSION

To promote horsemanship and horse care as they apply to the sport of distance riding by offering a variety of challenging and educational experiences designed to strengthen horse and rider partnerships.

