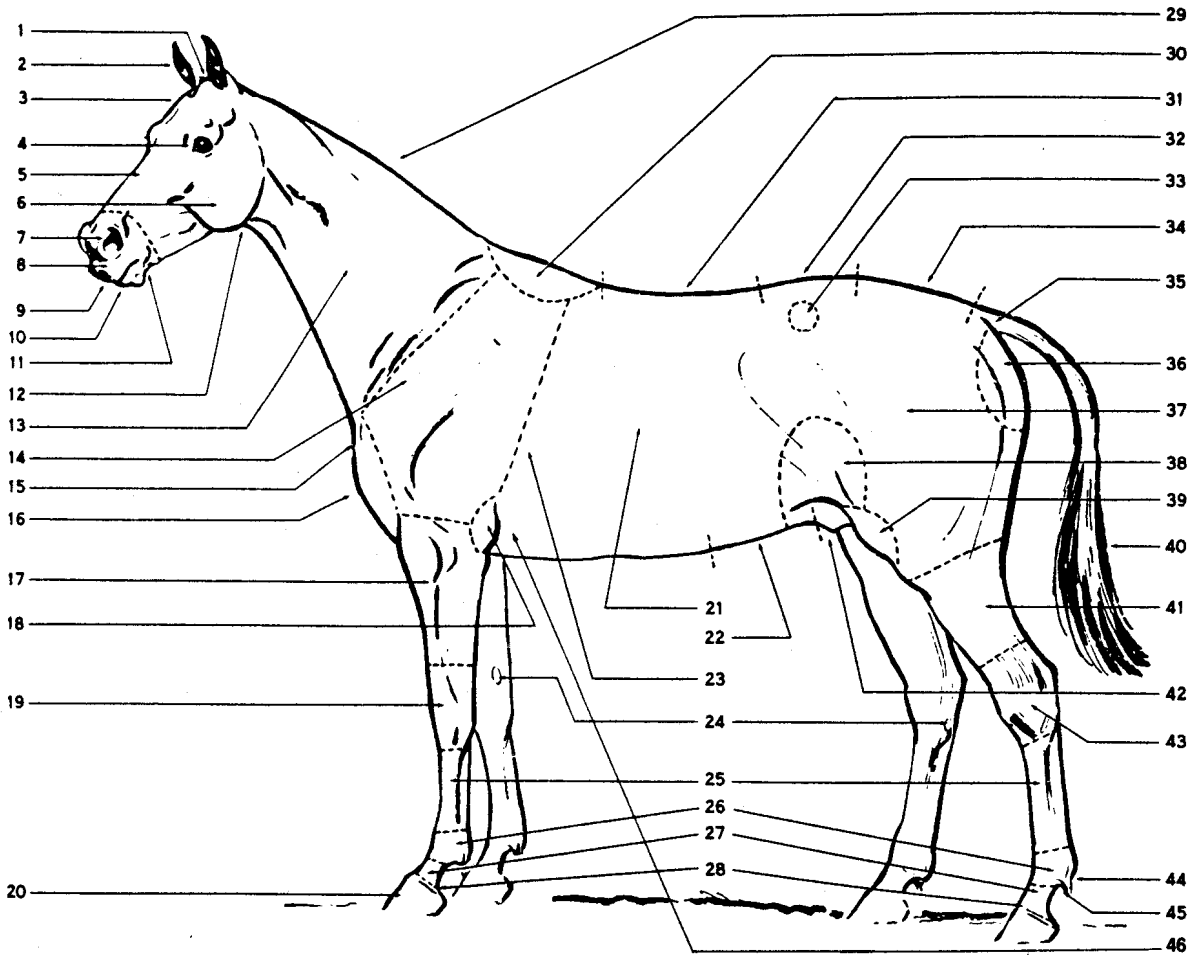


# CARE AND HANDLING OF YOUR HORSE



Fresno County 4-H CO-0215  
Supplement for the Light Horse

# Learning the Parts of the Horse



- |                       |                   |                            |
|-----------------------|-------------------|----------------------------|
| 1. POLL               | 16. CHEST         | 31. BACK                   |
| 2. EAR                | 17. FOREARM       | 32. LOIN                   |
| 3. FOREHEAD           | 18. ELBOW         | 33. POINT OF HIP           |
| 4. EYE                | 19. KNEE          | 34. RUMP OR CROUP          |
| 5. FACE               | 20. HOOF          | 35. DOCK                   |
| 6. CHEEK              | 21. BARREL        | 36. BUTTOCK                |
| 7. NOSTRIL            | 22. ABDOMEN       | 37. THIGH                  |
| 8. MUZZLE             | 23. HEART GIRTH   | 38. FLANK                  |
| 9. UPPER LIP          | 24. CHESTNUT      | 39. STIFLE                 |
| 10. LOWER LIP         | 25. CANNON        | 40. TAIL                   |
| 11. CHIN GROOVE       | 26. FETLOCK JOINT | 41. GASKIN OR SECOND THIGH |
| 12. THROAT LATCH      | 27. PASTERN       | 42. SHEATH (♂) UDDER (♀)   |
| 13. NECK              | 28. CORONET       | 43. HOCK                   |
| 14. SHOULDER          | 29. CREST         | 44. FETLOCK                |
| 15. POINT OF SHOULDER | 30. WITHERS       | 45. ERGOT                  |
|                       |                   | 46. FOREFLANK              |

# Feeding Your Horse

The amount and type of feed your horse requires will vary according to his weight and how you use and manage him. A successful feeding practice provides the basic feed requirements for body maintenance, growth, work, and reproduction.

The first and important use of feed is for body maintenance. Additional nutrients are needed for growth, work, gestation, milk production, and laying on body fat (see table 1). Young animals need protein for building muscles, bones, hair, and hooves. Mature horses need less protein until pregnancy and lactation increases their needs.

Don't overlook water in your horse's diet. Water is necessary to all life processes. It carries nutrients and regulates body temperature. An animal can survive much longer without feed than he can without water. Always have fresh, clean, cool water available, except when a horse is hot from work. Permit a warm horse only a light drink to refresh him.

With proper supplements, most feeds useful to farm animals make satisfactory horse feeds after the horse becomes accustomed to their odor and taste. Horses digest some types of feeds more easily than other types. Roughages (hay and pasture) are high in fiber and relatively low in digestible nutrients (50 percent). Concentrates (grain) are low in fiber and high in digestible nutrients (about 75 percent).

## DAILY FEED REQUIREMENTS

### Feeding for maintenance

**Energy:** The nutrients required to maintain your horse vary with his weight and his work. The daily requirement per 1,000 pounds liveweight for an idle horse is 1.5 percent of his body weight. This is approximately equal to 15 pounds of good quality hay per day. Grain can supplement the working horse's daily diet.

**Protein:** Good quality pasture, or as little as 6 pounds of good quality alfalfa hay per day, supply the protein requirement of a 1,000-pound horse.

**Vitamins:** Green pasture, or 3 or 5 pounds of quality green hay per day, usually will meet maintenance requirements of 12.5 international units (I.U.) of Vitamin A per 100 pounds of body weight. Levels of 18 I.U. per 100 pounds of body weight are adequate for weanlings. Pregnant and lactating (nursing) mares require Vitamin A, 25 I.U. per 100 pounds of body weight.

**Minerals:** Twenty-five grams per day of calcium and 17 grams per day of phosphorus are required to maintain a mature 1,000-pound horse. Pregnant and lactating mares and young growing horses need more. Provide salt-free choice, particularly when animals are sweating heavily. A trace mineral salt will supply other minerals needed unless there is an unusual deficiency.

### Feeding working horses, pregnant and lactating mares

Your horse needs more food for energy when his work is increased. However, he will not need more protein than is required for maintenance, so the food supplied for energy will give him an ample amount of protein.

The pregnant mare requires nutrients for maintenance, development of the fetus, increased body heat during gestation, and for any work she performs. A lactating mare may produce 3 to 4 gallons of milk (25 to 32 pounds) per day. Milk production requires additional nutrients for protein and for energy. Also, a lactating mare requires two to three times her maintenance requirement of vitamin A and calcium-phosphorus.

### Feeding the growing foal

The growing foal may gain one-half of his adult weight in one-fourth the time (12 months) it takes him to reach maturity. A well-balanced ration and adequate nutrition are particularly important during this stage of development. You may supplement the diet of the nursing foal with a very small amount of concentrate mix when he is 2 to 4 weeks old. Gradually increase this amount to  $\frac{1}{2}$  to  $\frac{3}{4}$  pound concentrate per 100 pounds of body weight.

You can control the amount and kind of feed the foal receives with a creep feeder. This enclosure has a feed opening just big enough to admit the foal. A satisfactory creep ration may be a combination of oats, wheat bran, and protein meal. Be aware that overfeeding of extremely high protein or high energy diets can cause epiphysitis (inflammation of joints of the leg) of young foals.

After weaning, increase the amount of a ration that is palatable, high in digestibility, proteins,

and minerals, and low in fiber. Total daily intake should be 2.5 to 3 pounds per 100 pounds of body weight (see table 2).

The foal is still growing during his second year, and he should have good quality legume pasture and some concentrate feeding. In the third and fourth years, good quality roughage may provide most of the required nutrients. The concentrate requirement depends on the amount of work performed.

**TABLE 1: FEED REQUIRED DAILY FOR LIGHT HORSES**

| Work or condition of horse   | Body weight (lbs) | Total feed (lbs)             |       |
|------------------------------|-------------------|------------------------------|-------|
|                              |                   | Legume pasture or hay* Grain | Grain |
| Idle horse (maintenance)†    | 800               | 12                           | 0     |
|                              | 1,000             | 14                           | 0     |
|                              | 1,200             | 16                           | 0     |
| Light work                   | 800               | 12                           | 3     |
|                              | 1,000             | 14                           | 4     |
|                              | 1,200             | 16                           | 5     |
| Medium work                  | 800               | 14                           | 4     |
|                              | 1,000             | 16                           | 5     |
|                              | 1,200             | 18                           | 6     |
| Heavy work                   | 800               | 11                           | 10    |
|                              | 1,000             | 15                           | 11    |
|                              | 1,200             | 15                           | 12    |
| Pregnant mare (last quarter) | 800               | 14                           | 2.5   |
|                              | 1,000             | 14                           | 3.0   |
|                              | 1,200             | 16                           | 5.5   |
| Lactating mare (4 gal/day)   | 800               | 15                           | 8     |
|                              | 1,000             | 15                           | 9     |
|                              | 1,200             | 18                           | 10    |

\*Pasture or legume hay recommended—if other than legume hay is used, include a protein-rich feed, such as linseed oil meal, in the concentrate ration.

†National Research Council says that a maintenance ration provides nutrients for up to 1 hour work per day.

**ABBREVIATIONS USED IN TABLES**

|    |                     |     |                          |
|----|---------------------|-----|--------------------------|
| gm | gram(s)             | gal | gallon(s)                |
| mg | milligram(s)        | lb  | pound(s)                 |
| cc | cubic centimeter(s) | cwt | hundredweight            |
| oz | ounce(s)            | /   | per                      |
| pt | pint(s)             | EC  | emulsifiable concentrate |
| qt | quart(s)            | WP  | wettable powder          |

**TABLE 2: DAILY GAINS AND FEED REQUIREMENTS OF THE GROWING FOAL**

| Body weight (lbs) | Age (mos) | Average daily gain (lbs) | Daily feed (lbs) | TDN (lbs) |
|-------------------|-----------|--------------------------|------------------|-----------|
| 250               | 3         | 2.8                      | 10.7             | 4.2       |
| 500               | 6         | 1.4                      | 13.7             | 6.2       |
| 700               | 12        | 1.0                      | 15.0             | 7.1       |
| 880               | 18        | .6                       | 15.3             | 7.7       |
| 990               | 24        | .15                      | 15.4             | 6.8       |
| 1100              | 42        | —                        | 14.6             | —         |

**TABLE 3: SUGGESTED DAILY RATIONS FOR A 1,000-POUND HORSE AT MEDIUM WORK**

| Ration 1      |        |
|---------------|--------|
| Alfalfa hay   | 15 lbs |
| Rolled barley | 6 lbs  |
| Wheat bran    | 1 lb   |
| Ration 2      |        |
| Oat hay       | 10 lbs |
| Alfalfa hay   | 5 lbs  |
| Rolled barley | 4 lbs  |
| Oats          | 3 lbs  |
| Ration 3      |        |
| Grass hay     | 10 lbs |
| Alfalfa hay   | 5 lbs  |
| Oats          | 5 lbs  |
| Rolled barley | 3 lbs  |
| Ration 4      |        |
| Oat hay       | 9 lbs  |
| Grass hay     | 6 lbs  |
| Rolled barley | 4 lbs  |
| Oats          | 2 lbs  |
| Wheat bran    | 1 lb   |

## SOURCES OF NUTRIENTS

Many different feeds can supply the necessary nutrients for your horse. Protein-rich feeds include legume hay or pasture (alfalfa, clover, vetch), cottonseed meal, linseed meal, and soybean meal. (For sample rations, see table 3.)

Carbohydrates are available from cereal grains such as oats, barley, and corn which are low in fiber and about 75 percent digestible.

Fresh green roughage (grass or hay) is an excellent source of vitamin A. Grain hay or bleached, poor-quality roughage contains little or no vitamin A. Supplement these with a commercially prepared source of this important nutrient.

Legumes are relatively high in calcium; cereal grains are a source of phosphorus. In most cases you should supplement a prepared mineral mix with the calcium and phosphorus contained in natural feed to get the correct proportion.

### Common California feeds

Following are characteristics of more important feed sources in California.

**Pasture:** In California, nonirrigated pasture is adequate for horses during only a few months. Irrigated pasture can be used all year and, if not overgrazed, will keep an idle horse in good condition. A pastured horse at light, medium, or hard work should have the same grain ration as a horse on hay.

**Alfalfa hay:** This most nutritious of available hays in California is high in protein, calcium, and vitamins A and D. It can make up all or part of a ration, but make the change to alfalfa gradually if a horse has been on oat or grass hay. Alfalfa is highly recommended for foals and pregnant or lactating mares, but a protein supplement should be provided.

**Oat hay:** Oat hay is the most common horse feed in the state, although it varies considerably in energy content and total digestibility. It is not recommended as the only feed for colts, growing horses, or broodmares unless supplemented by legume or legume mix, alfalfa hay, or alfalfa meal.

Oat hay is lower in protein, vitamin A, and calcium than is alfalfa.

**Sudan and grass hay:** All may substitute for oat hay. They may vary considerably in protein and energy content.

**Oats:** The most commonly fed grain for horses throughout the world, oats, may be fed alone or mixed with barley, bran, alfalfa meal, linseed meal, or other supplements. Oats may be whole or rolled.

**Barley:** You may substitute barley for part or all of the grain ration. It is slightly higher in energy and lower in bulk than oats and is best combined with a bulky supplement, such as bran or alfalfa meal. Barley must be rolled or ground to be an acceptable horse ration.

**Wheat bran:** Excellent as part of the grain ration, it should not make up more than 25 percent of it. Fairly low in energy and high in bulk, wheat bran supplies protein and phosphorus, but it is slightly laxative. Occasionally it is fed as a hot-water mash after a day of heavy work. It is excellent for mares after foaling.

**Alfalfa meal:** When good alfalfa hay or pasture is unavailable, this is an excellent supplement. When mixed with molasses, it is sold as alfalfa molasses or "sweet feed." You can feed this free-choice gradually if your horse is accustomed to it. It is excellent for putting weight on thin horses.

**Mixed grain rations:** Most of those on the market are well balanced and usually include salt, vitamins, and minerals. You can use mixes as the only grain supplement, but they are expensive and rarely more nutritious than a home mixture.

**"All-in-one" feeds:** Pellets or meals that include the required hay and grain proportions are ground and mixed. If they are the only rations fed, use at same or slightly lower rate than good quality hay for horses at light and medium work. This is excellent feed where good hay is unavailable or hay storage is a problem; it is desirable also for horses that tend to be constipated on a hay ration. Usually it is higher priced than hay or grain rations, and some horses may still need a small amount of hay to prevent them from chewing fences or developing other bad habits as a result of restlessness or boredom.

## Suggestions for good management

A few general rules will help you avoid some common difficulties:

- Know your horse's age and what his weight should be when he is in good condition.
- Have a regular feeding time—two or three times daily, if possible.
- Avoid sudden changes in type of food.
- Never give your horse moldy or dusty feed.
- Keep the feedbox clean.

- Feed your horse as an individual—learn his special requirements and preferences.
- Do not overfeed, but be sure to feed your horse adequately.
- See that your horse gets adequate exercise regularly.
- Have a veterinarian check your horse's teeth for soundness yearly.

For further information see *Feed Requirements of the Light Horse*, Publication 4005.

## Keeping Your Horse Healthy

Keeping your horse healthy is a very important part of your project. First of all, remember that the veterinarian is a valuable friend when your horse shows disease symptoms. Give him the chance to prevent serious trouble when your horse first shows signs of illness. Don't put off calling him. Here are a few things you should know about keeping your horse in good health.

### DISEASES

**Equine Encephalomyelitis (sleeping sickness):** This brain disease affects both horses and mules. It can be transmitted to humans. In the early stages, the infected animal may walk aimlessly about, sometimes in circles, and may appear depressed and sleepy. Grinding of the teeth often occurs; later, paralysis may develop in the throat, lips, and bladder, as well as blindness. Death may occur within 4 or 5 days after symptoms are noted. Some animals recover; others live but cannot react to normal stimuli and are referred to as "dummies."

The disease is caused by one of three filtrable viruses and is transmitted by mosquitoes. All horses should be vaccinated annually prior to the mosquito season. (See table 4, Vaccination Program for Horses.)

**Colic:** This is another term for gastrointestinal upset in the horse. In most cases, colic is caused by failure to control internal parasites as well as by errors in feeding and management. It can result from such things as: overeating; coarse indigestible feed; sudden changes in feed; working too soon after eating. Common signs of colic are pawing, stretching out like a sawhorse, looking at his side, getting up and down, rolling, and kicking at the abdomen.

A horse that is throwing itself and rolling should be walked until the veterinarian arrives. Any case of genuine colic should receive immediate veterinary attention.

**Thrush:** Proper cleaning of your horse's feet helps keep him healthy and well groomed. The most frequent cause of thrush is lack of proper foot care, particularly failure to clean out thoroughly the depths of the commissures and cleft of the frog. Other contributing causes may be a lack of frog pressure, insufficient exercise, filthy stables, dry feet, and cuts or tears in the horny frog.

You can detect thrush by the presence of cracks, depressions, or fissures in the horn of the frog containing a thick, dark-colored discharge with a very offensive odor. Thrush usually infects the cleft of the frog and the sides of the frog at the depths of the commissures. Thrush gradually

destroys horny tissue, which may be underrun and loosened some distance back from the edges of the external opening. Horses usually do not become lame until the destruction of horny tissue reaches the sensitive tissues. Consult your veterinarian for treatment of thrush.

**Colds:** Upper respiratory infections in the horse are common problems. They often are accom-

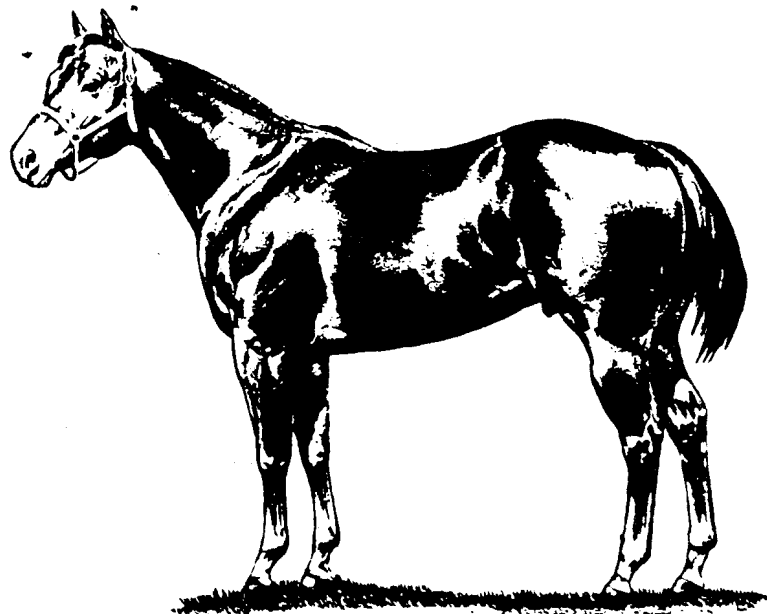
panied by coughing and a runny nose. These signs also are present in equine rhinopneumonitis, equine arteritis, equine influenza and strangles, as well as other diseases. Consult your veterinarian if your horse is obviously sick and off feed or if symptoms persist. Working an animal with an apparent mild cold often leads to more severe diseases, such as pneumonia.

**TABLE 4: VACCINATION PROGRAM FOR HORSES\***

| Disease                                  | Organism                                | Spread  | Vaccination   | Remarks   |
|--|---|---|---|---|
| Influenza                                | Virus (myxovirus A-equi 1 and A-equi 2) | Contact (direct or indirect, i.e., food, water, utensils) | Bivalent killed vaccine. Initial vaccination with a booster in 6-8 weeks. Follow with 2 to 5 injections annually depending on exposure. | Give booster vaccination in spring, as disease is prevalent in spring and summer or 2-3 weeks before start to show. Show and race horses may be vaccinated every 2-3 months.  |
| Strangles                                | Bacteria (Streptococcus equi)           | Contact (direct or indirect)                              | Killed vaccine. Series of 3 injections at weekly intervals. 1 yearly booster. Not routinely recommended.                                | Vaccinate animals prior to showing signs of strangles or having recovered from strangles. Administration of more than a single booster injection annually is dangerous.   |
| Tetanus                                  | Bacteria (Clostridium tetani)           | Wounds (not contagious)                                   | Tetanus toxoid. Initial vaccination with a booster in 4-8 weeks. Yearly booster. An EEE, WEE, TAT combination is available.             | Pregnant mares may be given booster within 60 days of foaling to supply colostral antibody to foal.   |
| Viral Abortion (Equine Rhinopneumonitis) | Virus (Equine Herpes-Virus I)           | Contact (direct or indirect)                              | Killed vaccine. Pregnant mare: Vaccinate at 5, 7 and 9 months gestation. Immunity of short duration.                                    | Virus is responsible for abortions in mares, and colds and coughs and a mild fever in young horses. Vaccinate weanlings and yearlings with an initial vaccination and a booster in 4-8 weeks. Two annual boosters. Show and race horses may be vaccinated every 2-3 months. |
| Western Equine Encephalomyelitis (WEE)   | Virus (arboviruses of Group A)          | Biting insects (mosquitoes)                               | Killed vaccine. May use WEE/EEE and tetanus toxoid combination.   | Eastern Equine Encephalomyelitis has not been diagnosed in California.  |
| Eastern Equine Encephalomyelitis (EEE)   | Virus (arboviruses of Group A)          | Biting insects (mosquitoes)                               | Killed vaccine. May use WEE/EEE and tetanus toxoid combination.   | Vaccinate just before mosquito season.  |
| Venezuelan Equine Encephalomyelitis      | Virus (arboviruses of Group B)          | Biting insects (mosquitoes)                               | Live vaccine—1 injection. May use a killed triple vaccine WEE/EEE/VEE. Not routinely used.  | All of these equine encephalomyelitis: 2 initial vaccinations, with yearly boosters thereafter.   |
| Rabies                                   | Virus                                   | Bite or saliva entering wound                             | Not routinely used.   | Annual vaccination for horses in a high risk area.  |

**NOTE:** Age to vaccinate foals is not well established. Colostral immunity has probably lost its inhibitory effect on the antigen in a vaccine by 3 months of age (the half-life of an antibody is 16 days, so that gradually the immunity acquired from the dam recedes).

\*John P. Hughes, Professor, Veterinary Medicine, University of California, Davis.



## PARASITES

Permanent parasites, such as lice and ticks, are discovered by frequent examination of animals. It is important to control these parasites before large populations occur. Control of lice is important during the winter. It is suggested that horses be individually treated by hand washing or brushing; retreat in two weeks to kill young lice hatching from eggs. Saddle blankets and other equipment of lice-infested horses should be soaked in boiling water or rubbed down with an insecticide.

Tick control is chiefly encountered during late fall and spring. Horses should be inspected after trail rides or exercise in grasslands and brush-covered "tick country." Take special care to treat body areas where the skin rubs together (fore flank, inner surface of rear flanks, and between the thighs).

**Fly control:** The common house fly, biting stable fly, blow fly, and others often become a nuisance around horse stables and other areas where livestock are kept. Unlike the other pests mentioned in this publication, these flies cannot be controlled solely by chemical treatment of the animals.

**The most effective control is sanitation** aimed at the disposal of fly production sources—such as manure, feed residues, and other barn wastes—combined with application of insecticides as needed to the buildings and surrounding areas.

Chemical treatments seldom give satisfactory results, if flies are developing in nearby manure or other wastes. Flies can move into the treated area from such sources faster than they can be killed by the fly sprays. When fly production material is eliminated by spreading and drying, pit composting, or immediate off-ranch removal, the remaining flies usually can be satisfactorily controlled by insecticides.

Apply surface-spray insecticides to inside and outside walls of stables, barns, outbuildings, and nearby corral fences. Supplement the surface sprays with dry and liquid baits, space sprays, and lastly, larvicides. Do not spray animals with these materials at the dosage levels recommended for fly control.

**Fly control on horse ranches** requires special care because of the possibility of contaminating feed and water with insecticides. For more detailed in-



formation, see *Fly Control on the Horse Ranch* (Leaflet 2335). This may be obtained from your local University of California Cooperative Extension farm and home advisors' office.

### Intestinal parasites

Intestinal parasites can seriously harm your horse. They do great damage by interfering with your horse's growth, thriftiness, development, performance, and resistance to disease. Young animals are more susceptible and suffer the greatest damage.

The most common and dangerous intestinal parasites in horses are bloodworms (strongyles), roundworms (ascarids), and bots.

**Bloodworms (strongyles):** The most dangerous internal parasites of the horse, they affect old as well as young animals. These parasites are blood-suckers and often cause anemia, weakness, emaciation, and diarrhea.

**Roundworms (ascarids)** These are the long white worms sometimes seen in the horse's droppings. They occur mainly in young horses and can cause unthriftiness, loss of energy, and digestive disturbances, particularly in colts.

**Bots:** For this larval form of the botfly a good preventative measure is to remove the small yellow eggs sometimes seen on the long hairs of the legs and belly.

### Control of internal parasites

Consult your veterinarian for proper treatment of parasites. Some important rules to follow are:

1. Worm at 2-month intervals and don't worm foaling mares within 1 month of foaling.
2. Alternate classes of anthelmintics to combat parasite resistance to specific drugs. Example: Benzimidazoles or pyrantel or the organophosphorous drugs or the piperazine phenothiazine combination. Using trade names can be misleading. Rotating Telmin to Equizole to Camvet to Panacur to Benzelmin to Equivet T utilizes only benzimidazole class drugs, and thus rotation is not achieved.
3. Treat for bots by removing bot eggs when they appear and by worming after the first hard frost in the fall.

For more detailed information see *The Common Parasites of Horses*, Publication 4006.

### Management practices

Horses are subject to many different species of stomach and intestinal worms. All of these worms go through a life cycle which includes time spent outside the horse. Worm eggs are passed in the feces and these, as well as the larvae which hatch, are again infective for the horse when it ingests these forms with contaminated food or water.

It is important, therefore, to practice good animal management which can help reduce worm burdens present or help prevent new worm infections. The following recommendations will help in this respect:

1. Do not feed on the ground nor allow horses to drink from stagnant water holes, particularly those on pastures that receive manure drainage.
2. Do not overstock pastures. Move horses from one field to another at frequent intervals.
3. Provide proper drainage in pastures to avoid low spots and allow pastures to dry after irrigation before stocking.
4. Clean stables and stalls daily and re-bed twice a week in summer and weekly in winter. Good sanitary methods of these wastes will help to control worms as well as assist in fly control.

It is best to have a veterinarian treat or recommend the correct anthelmintic drug for internal parasites. The drugs listed in Table 6 are poisonous and must be used with extreme care to avoid side effects from overdosage or poor parasite control from underdosage of the horse. Also some drugs are given by means of a stomach tube or balling gun (for boluses) and this can be dangerous—both to the horse and man—if done by an inexperienced person.

### TEETH CARE

A horse's back teeth or molars often develop jagged edges which cut into his cheeks and bother him during eating. This problem is especially serious with horses under 6 years and with horses older than 12 to 14 years. A veterinarian should inspect and float the teeth once a year, if necessary.

# Caring for Tack and Equipment

Your tack and equipment are as much a part of your horse's care as your horse. It's important that you know how to care for them and use them properly. Learn to identify the parts of your saddle and bridle. Learn how to halter, tie, saddle, and bridle your horse properly.

At home, always hang your saddle and bridle on suitable racks in a dry room. A 1-pound coffee can nailed to the wall makes an excellent bridle hanger. (Never hang a bridle on a nail!) Mice like leather, so watch out! Air and dry saddle and stable blankets immediately after use. Occasional washing is necessary.

Regular cleaning and care keeps equipment looking well, and adds greatly to its life and usefulness. A thorough cleaning technique for all equipment automatically provides a safety check, an important factor in horsemanship.

First, take the equipment apart, then wipe it as clean as possible with a dry rag. Brush the lamb's wool under the saddle with a whisk broom to remove all foreign material. (Also spray with a moth repellent once a year.) Then wash all leather parts thoroughly with castile soap and water to remove all dirt and sweat. When leather is extremely dirty, a small amount of sal soda in the water will help to clean it.

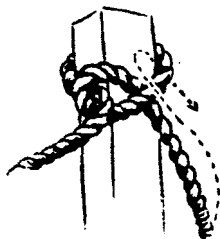
Then apply saddle soap, using an almost-dry sponge to further clean, soften, and replace the natural oils in the leather. The sponge should be dry enough so there is no lathering. Rub a generous amount of saddle soap into the leather. Let the leather dry thoroughly, then rub it vigorously with a clean, dry cloth to obtain a shine and to fill the pores and cuts on the surface. You may want to use neat's-foot oil or other leather finish material on parts that constantly come in contact with the horse. This replenishes the natural oils.

An old toothbrush is helpful in cleaning the bit and other metal. After washing the metal parts with soap and water to remove all saliva, grass, dirt, etc., dry and apply a cleanser or metal or silver polish to remove stains and tarnish. Always be careful to remove all of the polish from the bit.

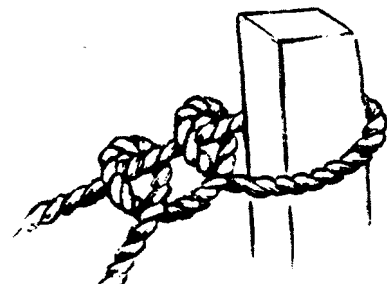
For shows or fairs, you need a water bucket (at least 16-quart size), a feed pan or feedbox for grain, a second bucket for washing your horse and equipment, a box for your grooming equipment, and preferably a tack box or trunk for your saddle, bridles, and other equipment. Well-kept equipment makes a good horseman. Keep yours so you can take pride in it always.

## USE AND IDENTIFY EQUIPMENT PROPERLY

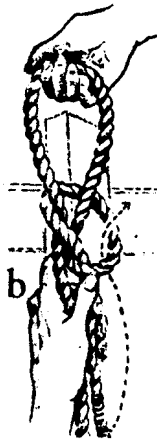
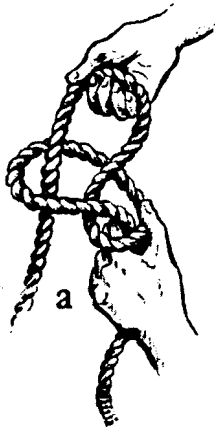
Every horseman should know how to identify and use his equipment. You should be familiar with these basic knots and pieces of equipment. The knots include the slip-knot, the bowline, the manger tie or clove hitch, and the half-hitch. Study the sketches and practice the knots until you can tie them rapidly.



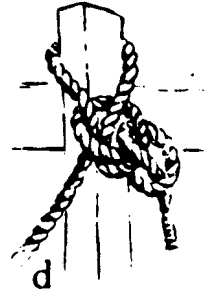
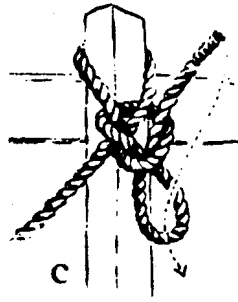
**HALF-HITCH INTO TIMBER HITCH**



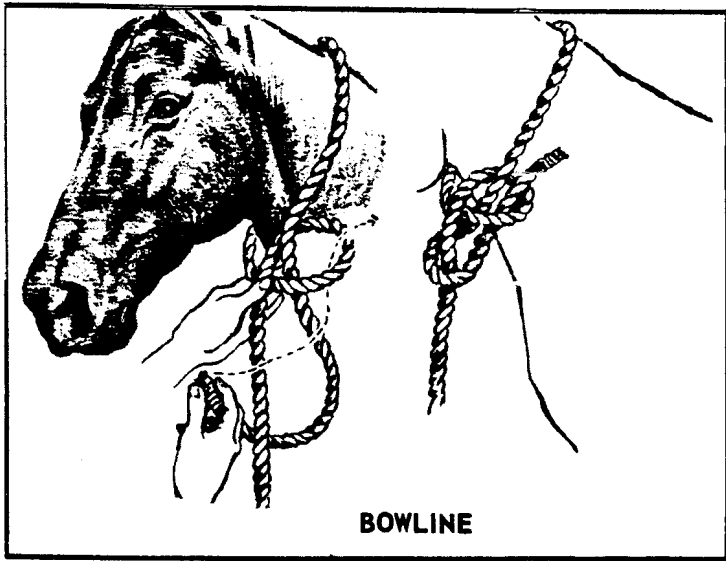
**TWO HALF-HITCHES**



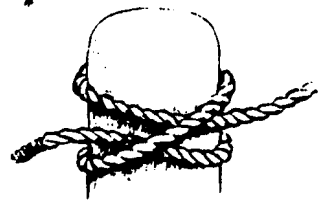
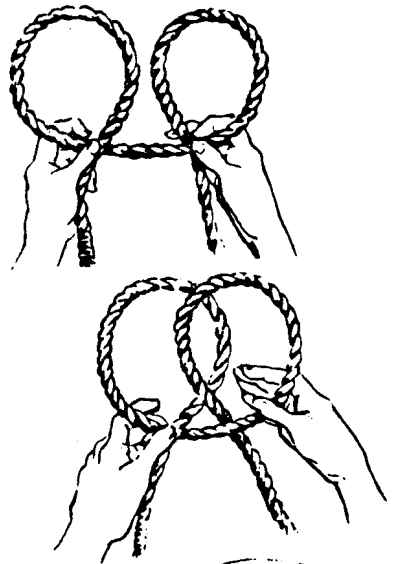
**SLIP-KNOT**



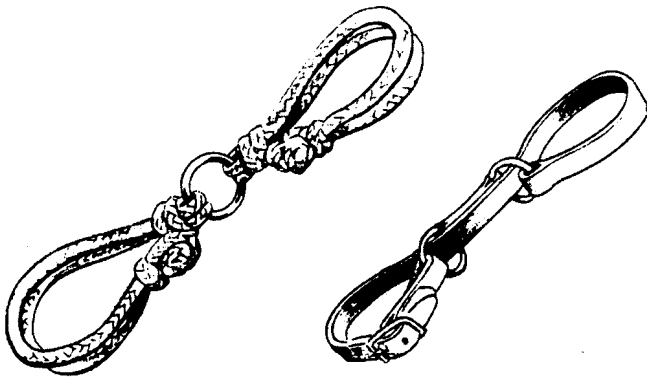
**SLIP-KNOT WITH RELEASE LOOP**



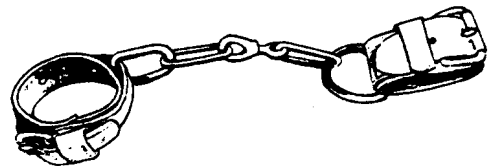
**BOWLINE**

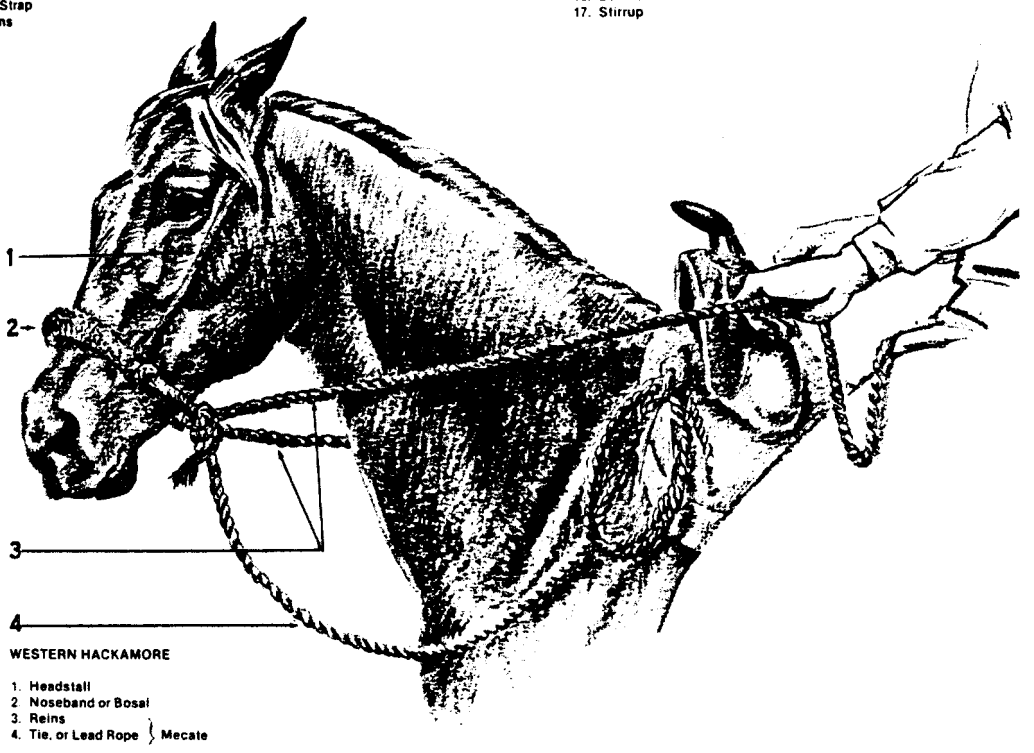
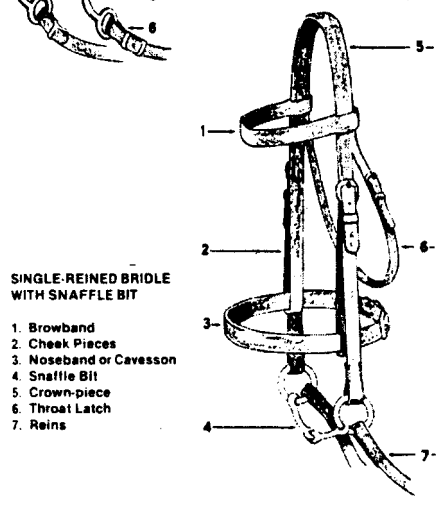
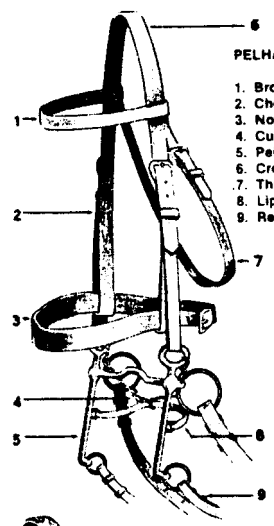
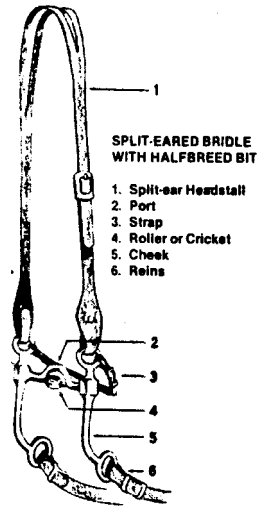
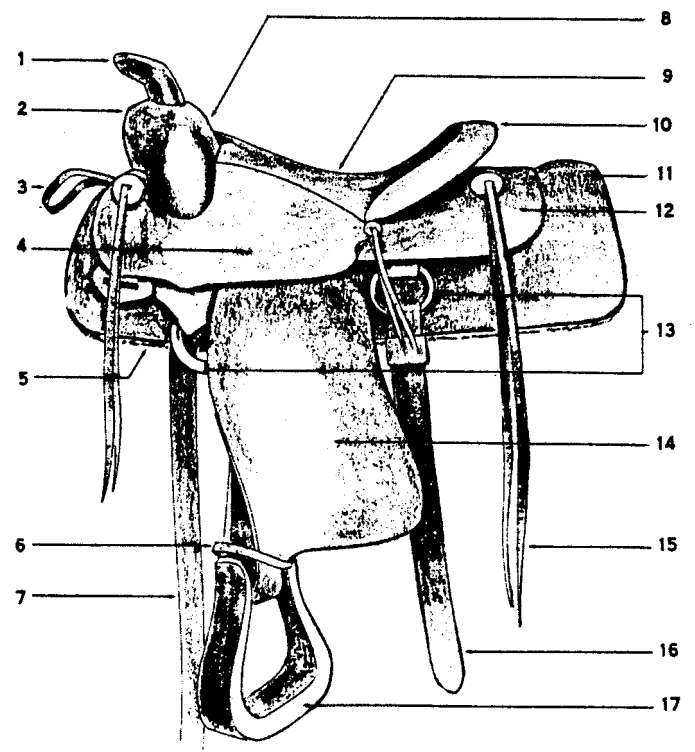
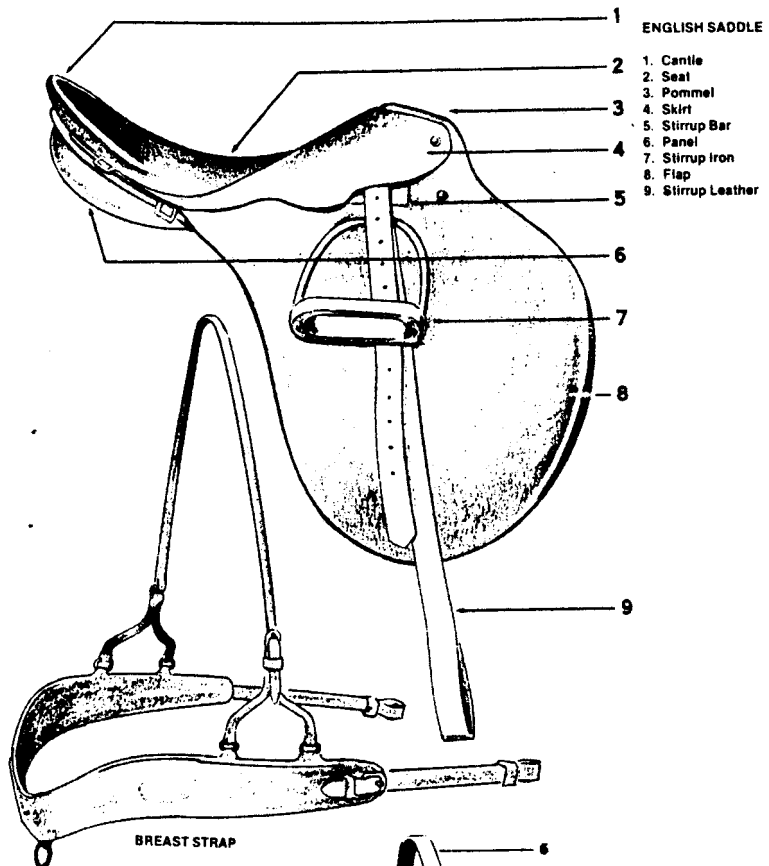


**CLOVE HITCH**



**HOBBLER**





# Body Colors, Patterns, and Markings

You should know the horseman's language for describing the colors and markings of a horse. The following color guide is based upon the official rules of the Jockey Club for registering Thoroughbred horses. This guide will not only help you to describe your horse, it will assist you to fill out registration papers and competition entry forms.

## BODY COLORS

**Bay** varies from a light yellowish tan (light bay) to a dark rich shade, almost brown, and between these a bright mahogany (blood bay) with black points—mane, tail, legs and feet.

**Black** can be determined by the fine black hair on the muzzle when in doubt between dark brown and black.

**Brown** appears black with fine tan or brown hairs on the muzzle or flanks.

**Buckskin** should be the color of a tanned deerhide. This animal also has black points—mane, tail, legs, and feet. Sometimes a buckskin horse has a black stripe down the spine from mane to base of tail or he may have a dark cross/line over the shoulders.

**Chestnut** varies from a dark liver color to a light washy yellow, between which come the brilliant red-gold and copper shades. Chestnuts never have black mane, tail, or points.

**Dun** varies from mouse color to a golden dun, and generally is accompanied by black points and ray.

**Gray** is a mixture of white hairs and black, sometimes scarcely distinguishable from black at birth, getting lighter with age.

**Roans** have two classes—red or strawberry—produced by the intermingling of red, white, and yellow hairs; and blue, produced by the intermingling of black, white, and yellow hairs.

## COLOR PATTERNS

Not all horses can be described by the body colors given in the Jockey Club color guide. Horsemen also use other color combinations, called color patterns. Here are some of the more common ones.

**Appaloosa** combines dark roan or solid color foreparts with dark spots over loin and hips, or white with dark spots over entire body.

**Dappled** have visible spots, either light or dark, overlying the basic body color.

**Palomino** is a golden body color combined with white mane and tail.

**Paint** or **Pied** (Pintos). **Piebald** is a white and black combination; **Skewbald** is white with any other color but black.

## BODY MARKINGS

The Jockey Club officially describes the following markings:

**Black points** include a black mane, tail, and extremities.

**Ray** is the line down the middle of the back of some horses, particularly dun.

**Zebra marks** are the dark, horizontal stripes seen on the forearm, knees, and back of the cannon region.



**STAR**



**SNIP**



**STRIPE**



**BLAZE**



**STAR, STRIPE  
AND SNIP**



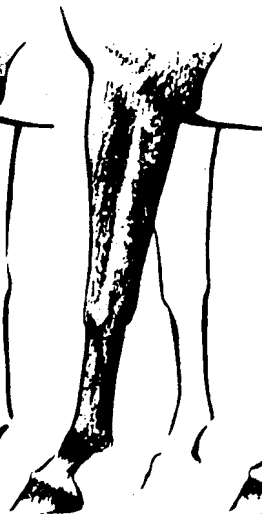
**BALD**



**STAR AND STRIPE**



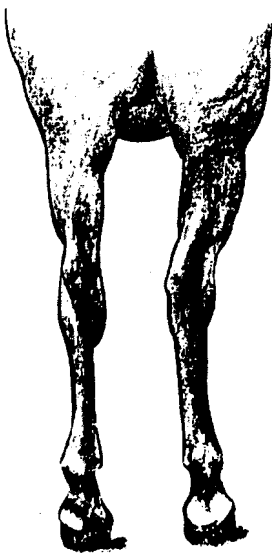
**CORONET**



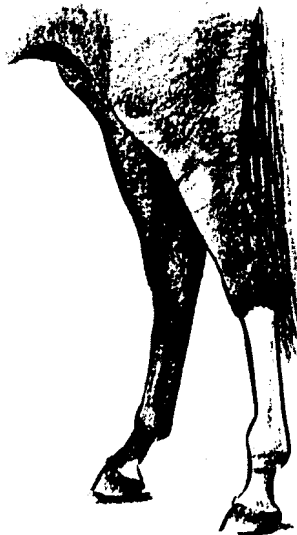
**HALF PASTERN**



**PASTERN**



**OUTSIDE HEEL BOTH HEELS**



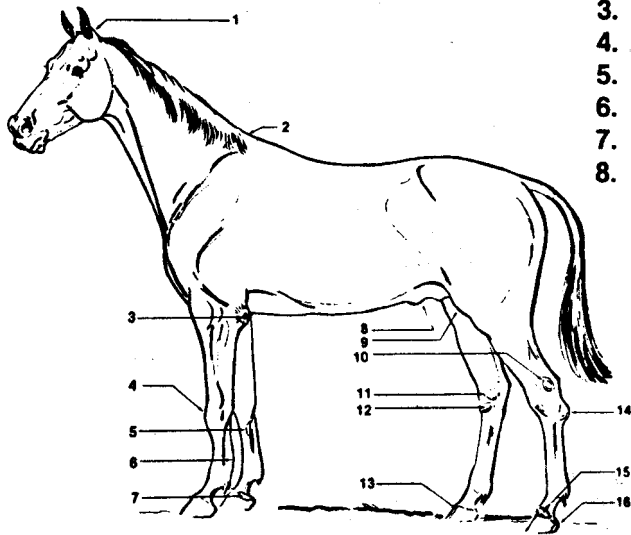
**INSIDE HEEL FULL STOCKING**



**ANKLE**

**HALF STOCKING**

## UNSOUNDNESSES OF THE HORSE



- |                     |                   |
|---------------------|-------------------|
| 1. POLL EVIL        | 9. STIFLE         |
| 2. FISTULA          | 10. THOROUGHPIN   |
| 3. SHOE BOIL        | 11. BOG SPAVIN    |
| 4. OVER IN THE KNEE | 12. BONE SPAVIN   |
| 5. SPLINT           | 13. TOE CRACK     |
| 6. BOWED TENDON     | 14. CURB          |
| 7. SIDEBONE         | 15. RINGBONE      |
| 8. HERNIA           | 16. QUARTER CRACK |

## DEFINITIONS OF UNSOUNDNESSES

- FEET:** Toe crack—a split in the front part of the hoof wall; may be partial, complete, or high or low.  
 Quarter crack—a split in the quarter area of the hoof wall which is toward the heel.  
 Seedy toe—a separation of the wall of the hoof near the toe.
- PASTERNS:** Ringbone—a bony enlargement surrounding the bones of the pastern.  
 Sidebone—ossification of the lateral cartilages.
- CANNON:** Splint—a bony enlargement in the groove formed by the splint and cannon bones; may be high or low, forward or back.  
 Bowed tendon—an extension backward of the flexor tendons as a result of being torn or stretched.
- HOCK:** Capped hock—an enlargement on the point of the hock due to inflammation of the bursa.  
 Curb—an enlargement below the point of the hock.  
 Thoroughpin—a soft, puffy enlargement in the web of the hock.  
 Bog spavin—an inflammation of the hock joint characterized by distention of the joint capsule.  
 Bone spavin—any bony enlargement on the bones of the hock.
- HIP:** Knocked-down hip (hipped)—a fracture of the point of the hip.
- KNEE:** Over in the knee—a bending forward of the knee. This may be congenital or due to injury.
- ELBOW:** Capped elbow (shoe boil)—enlargement at the point of the elbow due to inflammation of the bursa.
- BODY:** Hernia (rupture)—a protrusion of a loop of tissue through an abnormal opening.

## UNSOUNDNESSES REVEALED BY PERFORMANCE

- Heaves** —a forced or labored breathing characterized by difficulty of expiration and a chronic cough.
- Roaring** —an audible sound produced on inspiration when breathing.
- Stringhalt** —a peculiar jerking up (overflexion) of the hind leg when walking, trotting, or turning.