



# Weaning and Management of Weanling Horses

David W. Freeman

Oklahoma Cooperative Extension Equine Specialist

Young, weaned horses below the age of one year are called weanlings. During this time of life, the foals have been separated from their dams, are rapidly growing, and are receiving training and management practices that have life-long effects. This fact sheet provides recommendations on preparing the foal to be weaned, weaning methods, and care and management of the weanling horse. More information on growing horses can be found in OSU Fact Sheet F-3985, "Foaling Management and Care of the Nursing Foal" and OSU Fact Sheet F-3977, "Managing Young Horses For Sound Growth."

## Preweaning Care

Foals will spend the first four to five months by their dam's side receiving their nutrition from the mare's milk. The foal's nutritional requirement is met solely from the mare's milk the first several months of age. As the foal becomes larger, their nutrient needs exceed the nutrients available from the mare's milk. Foals will begin eating small amounts of grain within weeks after birth. If given access to grain, most will consume substantial amounts by two to three months of age. Most foals will readily eat from the dam's trough; however, to insure access, many farms use creep feeders. Creep feeding, supplying a separate feed source to nursing foals, is especially important on farms that wean later than 4 months of age. By this age, the foal's nutritional needs exceed what is available from their dam's milk. In addition to the benefit of the added nutrition of creep feeding while still nursing their dams, foals accustomed to eating grain will likely continue to eat through the weaning process, and be less stressed during weaning.

## Creep Feeder Design

Creep feeders should be designed to allow for easy, safe entry and exit of foals while restricting access of mares to the creep feed. As such, the height of the opening should allow for a minimum of six to eight inches clearance above the foal's withers. A means of adjusting the height of the opening is an important design consideration because of the large increases in height as foals grow to weaning age.

The height of the opening must restrict the entrance of mares to the feed source, so a maximal height of several inches above the wither height of foals is important. Mares may spend large amounts of time trying to enter creep feeders, so sturdiness of construction is important. The design should also consider widths of entry and exit points. Wider openings increase the chance that mares will enter the feeder.

Also, the feeder should be large enough to separate the entrance from the creep feed, so mares are not able to reach

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feed by protruding their head and neck through openings or over and under feeder walls. When several mares and foals are housed together, feeders must be large enough to accommodate several foals at one time, as foals characteristically will eat together. A 10' X 10' area should be sufficient for one or two foals; however, it might be too small for areas housing a larger number of mares and foals.

Foals must be able to turn around easily while inside the feeder. Feeders that are too confining may increase foal stress and injury. Also, multiple entry and exit points will reduce the chance that foals will become panicky because they did not have quick access to an exit.

Feeders must be cleaned routinely, and feed supply replenished or replaced. Feeders constructed with a roof will reduce spoilage resulting from the feed getting wet. Although enclosed sides would also aid in reducing environmental contamination, solid sides on creep feeders are not recommended. Restricting visual contact to mares while the foals are inside the feeder may restrict feeder usage and increase foal injury. For most stock horse breeds, slatted sides with spaces of two to four inches should allow for visual contact of mares and foals, restrict the ability of the mare to place her head inside the feeder walls, and guard against a foal placing its foot between the boards. The bottom one or two feet of the wall should be solid to further protect a foal from placing its foot through the wall.

Another wall design that has been used successfully is a single bar or board at an appropriate level to the foal's height. A single rail has advantage of simplicity, however may lack sufficient sturdiness to keep mares from the enclosed creep feed. When using this design, small amounts of feed should be offered to the foals at times they congregate around the feeder, such as when their dams are eating in the same area. Rationing grain in feeders, so there are not any large amounts left over, is more important because of the increased chance a mare may enter a feeder constructed with one rail or board.

To encourage use, the location of the feeder should be near the mare's feeding area, a water source, or other areas visited frequently by mares and foals. This is especially important in large pastures.

At first, foals may have to be shown how to enter a feeder. One method for teaching foals is to place two or three inside for a few minutes and show them the feed. Usually, once foals identify the feed source with the creep feeder, they readily enter and exit without problems. Also, this practice will make "teachers" for the other foals.

## Creep Rations

Foals generally eat small amounts very frequently. Intake of creep feed varies greatly between foals, and from one day to the next with the same foal. Foals may consume one to five pounds of creep feed per day. Providing smaller allotments during a day, such as when mares are fed, is more desirable than supplying large single feedings. Even though the capacity and appetite of foals of this age guards against overfeeding, large amounts left in creep feeders increase the chance of spoilage and desire of mares to gain access. Feed should be checked at least once daily and any wet or moldy feed should be replaced.

Creep feeds must contain a balanced amount of energy, protein, minerals, and vitamins. Many commercially developed rations designed for weanlings will contain appropriate nutrient densities to be used also as a creep feed. A typical creep feed will supply approximately 1.4 Megacalories of digestible energy per pound (Mcal DE/lb) of feed. Creep feeds should contain 14 to 15% crude protein, approximately 0.8% calcium, and 0.5% phosphorus to insure a correct balance with this energy concentration. Commercially developed mixes will also contain additional minerals and vitamins.

The feed should be highly palatable and coarsely processed to enhance digestion; e.g. pelleted, extruded, rolled or crimped oats, and cracked or steam flaked corn. Pelleted and extruded creep feeds have the advantage of reducing the amount of sorting of individual ingredients.

## Management and Health Programs

Following separation, the foal usually enters into increased contact with human handlers who require certain standards of behavior. The foal, therefore, should be taught to accept basic handling and discipline before weaning. Haltering, brushing, and leading the foal while still on the side of the mare will be helpful for later training.

Because weaning can be very stressful, the foal should be in good health before being separated from its dam. Several vaccinations are recommended to begin between three to six months of age. For specific needs to be met, vaccination and deworming schedules need the supervision of a veterinarian that is familiar with your farm practices and location.

## Weaning Systems

### Time of Weaning

The choice of age for weaning foals depends on factors such as the health status of the mare and foal, temperament and vices of the mare, the environment into which the foal will be weaned, maturity of the foal at a given age, and the level of management on a given farm. If necessary, foals can be weaned as early as a few days post birth; however, the usual age for weaning is between four and six months. Newborn foals rely on the mare for nutrition, protection, and security. As such, foals weaned at extremely young ages require intense nutritional and behavioral management, and may not develop some of the natural behaviors associated with horses. By four months of age, however, the foal should be eating feed, and is less dependent on its dam for protection and emotional support. Weaning before this age may increase weaning stress, especially if environmental conditions are harsh, the foal is not eating grain, or the foal is heavily dependent on the mare.

On the other hand, little nutritional or social support may be gained by waiting until six months of age to wean. In fact, later weaning may promote some unwanted behavior in foals. Many breeders prefer to separate a mare with adverse disposition or vices from her foal as soon as advisable. Some behavior patterns can be learned from the mare and with early separation, the mare's behavior will have less influence on the foal's behavior.

### Weaning System

The management level of the breeding farm, the condition and temperament of the mare and foal, facilities, and the number of foals to be weaned during a given period of time affect decisions on how foals are weaned. Regardless of method, foals weaned together and those consuming feed prior to weaning will have less weaning stress.

Weaning systems range from an abrupt separation in which the foal and mare are separated immediately from all contact (sight, sound, smell) to progressive separation in which the foal and mare are allowed a period of time with visual, auditory (sound), and olfactory (smell) contact before complete removal. Complete, abrupt separation usually involves moving the mare to another turnout area, or moving the foal into a confinement separated completely from any type of mare contact.

Foals weaned by complete, abrupt separation may have more weaning stress than foals weaned with progressive separation. Instead of immediately removing the mare from all contact, a mare and foal are separated by being placed in enclosures with a common side. Once separated, the foal and mare are not allowed contact that facilitates nursing; however, fences or stall partitions allow for visual contact. The presence of the mare in an adjoining enclosure allows the foal to retain the security and comfort of its dam during the first several days after separation even though nursing is restricted. After being housed in an adjoining area for several days to a week, the mare and foal should be moved completely away from one another. As with abrupt weaning, weaning foals in pairs and preconditioning the foal to solid feed before weaning will reduce weaning stress.

One of the best ways of lessening weaning stress is to maintain familiar surroundings. This can be accomplished by leaving the foal in the same area it occupied previously and by weaning with other foals of like size and age. If another foal is not available, a highly excitable foal may benefit by contact with a companion such as a goat or a yearling with an accepting disposition.

Regardless of system, foals should be watched closely when weaned, especially the first 12 to 24 hours. Also, facility construction and design must emphasize safety. Any protrusions, such as feed troughs, can readily result in injury of nervous foals. Any opening larger than a foal's hoof has the potential for trapping the leg of a foal.

### Mare Care During Weaning

Most mares calm down more quickly than their foal, especially those who have foaled in past years. The time required for her to resume normal behavior may vary from a few hours to several days.

If the mare still has significant milk production, the manager should decrease grain intake and increase exercise. A small amount may periodically be milked out by hand if the udder

becomes very tight, but this practice is discouraged unless absolutely necessary. If the udder is still tight four days after weaning and the mare's temperature rises significantly, or other indications warrant it, the milk should be checked for the presence of mastitis (infection) and appropriate therapy instituted. Veterinarian assistance is recommended.

## Post-weaning Care

### Management and Health Care

Hoof care should include periodic trimmings and inspection for cracks, bruises, and abscesses. The frequency of trimming will be influenced by the conformation of the foal, the normal wear of hooves, exercise, and housing. One advantage to pasturing weanlings is that continual access to exercise may benefit normal hoof growth and wear. Stalled weanlings probably will need more intensive and frequent hoof care.

Handling practices will vary with the use of weanlings. Those weanlings that are shown in halter classes or fitted for sales will receive daily handling and training. Brushing and other normal cleaning routines not only help the general health status of the weanling, they also serve to gently and train the weanling to accept handlers. Those weanlings housed in pastures that do not receive the daily care of stalled weanlings should be periodically handled, brushed, and led. These handling sessions will allow handlers to better control these weanlings when they receive handling for ground training and breaking to saddle in subsequent years.

Commonly recommended vaccinations include tetanus, sleeping sickness, rhinopneumonitis, influenza, rabies, West Nile, and strangles. Deworming products are specific to types of worm infestation, and frequency of administration is influenced by product efficacy, reinfestation rates, and environmental conditions. Vaccination and deworming schedules will be influenced by your locale and management practices, so consultation with attending veterinarians is recommended.

### Feeds and Feeding

Generally, 50 to 60 percent of mature weight and 80 to 90 percent of wither height is reached by 12 months of age. The exact body condition and rate of gain needed to promote sound growth of muscle and bone is debatable and perhaps somewhat flexible. Individual differences in genetic makeup create so much variation that general recommendations are limited in scope and accuracy.

Generally, weanlings should be fed individually at rates to maintain a moderate body condition. Weanlings expected to mature at 1100 to 1200 pounds should gain between 1.25 to 2.0 pounds a day. Most weanlings will consume between 1.5 and 2.0 pounds of grain per 100 pounds of body weight per day; and 0.5 to 1.0 pound of forage per 100 pounds of body weight per day to meet their needs for growth in moderate condition.

Extremes in body condition should be avoided. Rations should be reduced when large amounts of body fat are deposited, and increased if the ribs or other bony structures become apparent. Also, weanlings fed to grow at consistent rates will have less structural problems as compared to those restricted in growth for several months and then fed to gain rapidly.

There are numerous grain mixes available that have been formulated to contain the proper balance of protein, minerals, and vitamins to energy for weanling horse needs. This balance insures adequate amounts of these nutrients at different energy intakes and rate of growths. Most weanling rations will have between 1.2 and 1.3 Megacalories of digestible energy per pound. To insure adequate protein and minerals, these rations (hay and grain combined) should contain a minimum of 13% crude protein, 0.6% calcium, and 0.35% phosphorous. The concentration of nutrients in the grain mix will depend on the type and level of hay or pasture forage. To ensure adequate nutrient intake with different forages, grain mixes formulated for weanlings typically will contain 14% crude protein, 0.8% calcium, and 0.5 % phosphorus.

The most common problems with nutrition of growing horses are from over or under feeding, making sharp increases in rates of gain by sudden changes in amounts of feed, or by feeding unbalanced rations. Unbalanced rations commonly occur when grains are added on farm to commercially formulated mixes, or feeding grains without vitamin or mineral supplementation.

### Housing and Exercise

Many weanling horses are turned out in pastures with other similarly aged horses. There are several advantages to managing weanlings together in a pasture as compared to housing in stalls. Weanlings will interact with one another, and the behavior the weanling exhibits later in life may be more characteristic of expected behaviors in all horses as compared to weanlings housed separately. The need for forced exercise is lessened, and research suggests that weanlings managed extensively in pastures will have less frequency of bone growth problems. This is probably due to a combination of factors related to free access to exercise and nutrients in the pasture forage. Continuous, free access to exercise may benefit bone strength and hoof formation. Also, horses may be managed for slower growth rates in pastures.

Those showing or marketing young horses require horses to be managed and housed individually. Stalled horses generally receive more individual care, regulated feed intake, and can be kept in better hair condition. Exercise is important, as stalling without forced exercise can inhibit development of bone strength in weanlings. Single exercise bouts should be short in duration, and apply enough stress to stimulate sound muscle and bone growth without over-exertion.

Successful forced exercise programs for stalled weanlings have incorporated a number of practices: timed turnouts with other growing horses, ponying, longeing, and use of mechanical devices such as horse walkers and treadmills. One practical management method has been to follow short-duration, controlled exercise bouts with longer-duration, free-access turnouts. Exercise programs must be individualized and adjusted with the development of each horse. Exercise level and intensity should begin conservatively, and increased as positive responses are achieved. Evidence of mild soreness or joint swelling must be recognized before becoming severe, and the subsequent level of exercise reduced until the horse responds more favorably.

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