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Orphans Require Immediate Critical Care

If a foal is orphaned at birth, he'll require critical care within the first few hours of life. Unfortunately, this leaves little time for an unprepared owner to learn about providing essential support to an orphan.

"It's important to be aware of what might be needed and be prepared to administer to those needs before the birthing process," said Tommy Puffinbarger, Alfalfa County Extension Office agricultural educator and horse enthusiast.

Nursing

Foals are expected to nurse within two hours to three hours of birth. This allows for the ingestion of colostrum in time for antibodies in the milk to be ingested, absorbed, and used for strengthening the foal's immune system.

"If the foal doesn't ingest colostrum within its first 12 hours of life, it is likely that the foal will have a compromised immune system, as the ability to ingest antibodies decreases after that time," Puffinbarger said.

Antibodies are large protein molecules and must be absorbed intact to be usable by the animal. The ability to absorb protein intact quickly decreases after the first 12 to 24 hours of life, after which protein is broken down into smaller parts before absorption.

Blood Test

Dave Freeman, PhD, Oklahoma State University Cooperative Extension equine specialist, said a blood test of the foal can be done on-farm to estimate the antibody levels in the foal's blood.

Blood tests require time between ingestion and testing; approximately 8 to 12 hours after receiving an antibody source.

"Check with an equine veterinarian on recommended tests and review of procedures for testing," Freeman said. "The first concern with orphans, actually all foals, is to receive a source of antibodies."

Orphans

For foals orphaned at birth, colostrum replacement will have to be administered within the first several hours of life. Recommendations for colostrum replacement schedules and amounts will vary, emphasizing yet again the need to work with an equine veterinarian.

"Recommendations may suggest a minimum of a couple of doses, especially if it has to be delivered via a nasogastric (stomach) tube," Freeman said. "To mimic the natural intake and maximize absorption, recommended schedules will be similar to supplying one pint to two pints of colostrum every couple of hours for the first six hours of life, with an increase of three doses to four doses every hour between six hours and 12 hours of life."

Freeman and Puffinbarger said this schedule should not be too difficult as long as a foal will ingest colostrum voluntarily. The amounts relate to two quarts to three quarts of a properly stored source of colostrum.

Some commercial breeding farms will maintain a colostrum bank gathered in small quantities from foaling mares. When frozen, colostrum antibodies should remain intact for up to a year of storage. In other words, sources should be used by the next foaling season.

"Proper thawing is essential to maintain the integrity of the antibodies, so obtain advice from your veterinarian or knowledgeable farm manager," Puffinbarger said.

Providing an alternative supply of antibodies is a usual therapy for most small-number horse breeders, as they often do not have timely access to an adequate colostrum source to ensure absorption by the orphan foal.

"This involves intravenous administration of plasma from commercially available sources or from an acceptable donor horse," Freeman said. "Administration should occur soon after birth, preferably within the first 24 hours of life."

Once a foal's immune system has been established, attention turns to supplying nutrients in amounts and forms that the animal can use to sustain life. Without a dam's supply of milk, the first several weeks of life require the foal to receive some type of milk replacement.

"Occasionally there is a nursing mare available on the farm that can be coaxed into essentially adopting the foal," Freeman said. "More often, the usual source of milk is through commercially available mare milk replacers."

There are several commercial sources available. Those designed for orphan foal use are prepared to supply the protein, fat, and mineral levels characteristic of mare milk.

"If a source of milk is needed before a mare's milk formula can be obtained, 2% cow's milk can be used," Freeman said. "It is best to add a sugar source - dextrose or white corn syrup - up to the 2% cow's milk at levels approximating a couple of teaspoons per pint."

Higher fat cow's milk is not recommended, nor is table sugar. Although most foals will have small bouts of loose stools within a few weeks of age, high fat sources of nutrition or consumption of large amounts of nutrient-dense liquids can exasperate normal changes in stool consistency to levels resulting in serious bouts of diarrhea.

"That's not a good situation for any animal, let alone a newborn foal," Puffinbarger said.

Teaching Foals

Foals will have to be taught to consume milk from a bucket or bottle. Bucket feeding is more desirable as a foal will naturally consume small amounts very frequently throughout the day. Suggestions for adapting a foal to bucket feeding are readily available. Commercial supply sources usually outline suggestions as part of the product's label.

Milk replacers are available in powder form, to be reconstituted into a liquid, and as pellets. The foal will require a liquid form exclusively the first several weeks following birth.

For a stock horse, expect one pint to two pints to be consumed approximately every two hours for the first several weeks of life. Amounts of liquid milk replacer will increase as the foal grows.

"Intakes will vary, but expect around 25% of a foal's body weight in liquid weight per day," Freeman said. "This amount relates to around 3 gallons of intake per day for a 100-pound newborn."

Milk replacers likely will suggest lower volume, as mixtures will supply nutrients in a denser formula. The desire of a foal to drink and the need to control diarrhea may lead to adjustment of concentrations to be more or less dilute.

Pelleted milk replacers are more easily supplied and have a longer shelf life once fed. Liquid sources can be gradually replaced by milk replacer pellets within two weeks to three weeks of life.

"Milk replacer sources can be replaced with creep feeds when the foal reaches three weeks to four weeks of age," Freeman said. "A gradual adjustment from milk replacer sources to creep feeds is recommended."

Regardless of supplying nutrition via liquid or solid means, expect foals to consume small amounts in frequent feedings throughout the day. Clean facilities, clean feeding containers, and fresh supplies are paramount as sanitation is especially important with feed sources of these types.

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