

New England Horse Breeder's. Preseason 2010

ISSUE 4

JULY 2010

Prebreeding Examination of the Mare

Breeding is an enormous investment of time, money and emotional energy for most mare owners and breeders. It is therefore wise to ensure that your mare is in good reproductive health before sending her to stud. This will maximize your chances for early conception and a healthy pregnancy.

Before sending your mare away, make sure that her weight is normal, she has been recently dewormed, and that her vaccinations are up to date.

It is common for veterinarians to do a palpation (manual examination) of the mare's internal genitalia in the Spring, before breeding. This examination will determine any abnormal size, shape or consistency of the uterus, cervix or ovaries. In addition, it may help time

breeding more accurately. Your vet will extend his/her arm into the rectum, and feel the uterus and ovaries through the rectal wall. If your mare objects to the examination, your vet may twitch or even sedate her. Proper restraint is vital not only for the safety of the veterinarian but also that of the mare - if she is not calm and still, the exam can cause a tear in the rectum, with serious consequences.

Inflammation and/or infection of the uterus is a common cause of infertility in the mare. There are three barriers against entry of bacteria into the uterus - the vulva, the vestibule (opening to the vagina) and the cervix. Any abnormality in one or more of these barriers allows bacteria or fungi to colonize the uterus - this condition is called endometritis. As mares age and have several

foals, the vulva may stretch and relax to such an extent that stool from the overlying rectum will be aspirated into the genital tract. These mares require a common, simple and inexpensive surgery known as a caslicks procedure. Some mares develop tears in the cervix postfoaling that must be repaired. These can only be detected by an internal examination of the cervix, both by looking at it through a long tube speculum and by manual examination.

A maiden mare should always have a speculum examination of her vagina prior to breeding, in order to detect and remove a persistent hymen, if present. Failure to remove the hymen may lead to breeding and/or foaling complications.

SPECIAL POINTS OF INTEREST:

- **Control Infection—Caslick your Mare.**
- **Maximise Breeding Success. Pre breeding Examination.**
- **Infertility ? - uterine infection and / or inflammation.**
- **Caring for the new born foal.**
- **AI and ET.**
- **Foaling Mare management.**

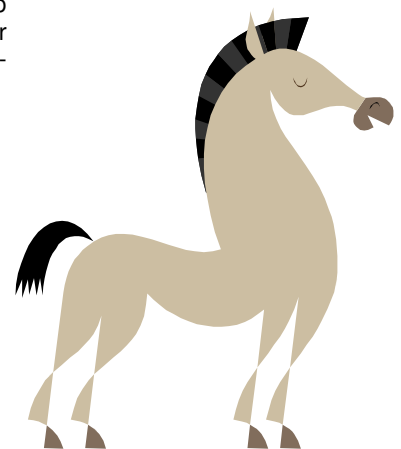
Equimax

Oral Paste for Horses

Equimax is safe to use in all horses including :-

Pregnant mares - There is no adverse reaction with up to twice the recommended dose. Pregnancy rate is unaffected.

Foals - Although treatment from 6 weeks is recommended, no adverse reactions have been detected at twice the recommended dose in foals as young as 4 weeks.



Caring for Your Newborn Foal

As you await the arrival of your new foals this season, here is a refresher course to insure a healthy beginning.

1) Your new foal should stand within two hours of birth, and nurse within 3 hours of birth. The mare's first post foaling milk, called colostrum, is rich in immune factors that the foal ingests and absorbs through its intestinal cells. This capacity to absorb the colostrum starts to decline by 8-12 hours, and disappears by 18 to 24 hours. Failure to absorb adequate colostrum results in a condition called failure of passive transfer, which leaves the foal susceptible to serious infection. If your foal is not standing and nursing within a timely manner, call your veterinarian, who will examine the foal for abnormalities and give it some colostrum by stomach tube.

2) Most neonatal specialists now recommend that 0.5% chlorhexidine solution be used instead of tincture of iodine to dip the navel. Tincture of iodine is very irritating to tissues and can seal infection up in to the navel due to its excessive drying action. Chlorhexidine can be purchased from your veterinarian, feed store, or a catalogue company. If you choose to use tincture of iodine, it should be diluted 1 part iodine to 2 parts water. Dip the navel daily for 3 to 4 days. Bed your foal on straw (not shavings) during this time, in order to lower the incidence of infections.

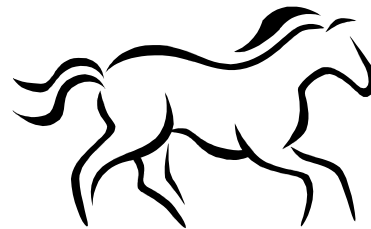
3) You may need to give your foal an enema 3 hours after birth if it has not passed its meconium. Use Fleet® Enemas. Never use force inserting the enema. Note whether or not the foal urinates.

4) Many of the illnesses contracted by foals have subtle signs and can be treated with success if caught early. For this reason we recommend that all foals be examined by a veterinarian between 12 and 24 hours of age, and that they receive a routine blood test and vitamin/mineral injections at that time.

5) A foal can be seriously ill and show only slight indications of illness, such as listlessness or decreased interest in the mare or surroundings. Some have "milk face" caused by the mare's full udder spaying at them due to lack of adequate nursing. A seriously ill foal may still nurse quite normally, however, and may or may not have a fever. If you are in doubt as to the health status of your foal, call your veterinarian. That call may be lifesaving.

Equivac™ 2in1 Vaccine

Equivac™ 2in1 Vaccine is the world's first combined tetanus and strangles vaccine. The vaccine consists of a combination of the inactivated toxin of *Clostridium tetani* and the cell-free extract of *Streptococcus equi* organisms.



Vaccination	Age	Disease	Vaccine
1st*	12 weeks	Strangles Tetanus	Equivac™ 2 in 1 vaccine
2nd	14 weeks (2 weeks later)	Strangles	Equivac™ 2 in 1 vaccine or Equivac™ S
3rd	16 weeks (2 weeks later)	Strangles Tetanus	Equivac™ 2 in 1 vaccine
First annual booster vaccination	16 months (12 months later)	Strangles Tetanus	Equivac™ 2 in 1 vaccine
Ongoing protection	Annually	Strangles	Equivac™ 2 in 1 vaccine or Equivac™ S
	Every 5 years	Tetanus	Equivac™ T

Artificial Insemination In The Mare

More and more breed associations are permitting artificial insemination. The negative attitudes and regulations by the breed registries are starting to decline. This is a big reason why the technology of artificial insemination in the horse has lagged behind other farm animal species.

What is artificial insemination? The term "artificial insemination," commonly called A.I., is the deposition of spermatozoa into the female's reproductive tract by artificial instruments rather than by natural service involving the stallion. It is a tool, which when used correctly can maximize reproductive efficiency and enhance the genetic progress of any breed. A.I. of cooled or frozen transported semen broadens the options of the mare owner for a desired mating.

A.I. is an option that benefits the stallion, mare and owners by:

- Reducing the possibility of injury to the mare and (or) stallion.
- Aiding in identification of reproductive problems.
- Permitting mares to be bred that can not be bred by using natural service.
- Allowing more mares to be bred to the same stallion on a given day.
- Enabling mares to be bred at the most opportune time for maximum chance of conception.

- Permitting more effective use of older, more valuable stallions.
- Preventing the overuse of a stallion at anytime during the breeding season.
- Permitting evaluation of semen at each collection and immediate diagnosis of minor changes in seminal quality.
- Permitting the use of stallions that have developed poor breeding habits or have been injured.

The down side to A.I. is that it is labor intensive and requires commitment and good communication by the stallion owner, mare owner and veterinarian. The chosen stallion should be proven or tested for seminal quality, fertility and the ability to withstand extending and handling (i.e. cooled transported semen). The mare prior to breeding should be cultured and (or) biopsied to make sure she has the potential to conceive and carry a foal to term.

A.I. is an option and tool which when used correctly can benefit the horse industry. To further investigate A.I. contact your breed association or registry, stallion owner or veterinarian. In order to maximize the success rate of A.I. it requires an understanding of the costs and commitment of all parties involved.

Dr. John Dinsmore, DVM Ruby View Veterinary Clinic

Embryo Transfer

Embryo transfer technology has become more popular in the horse industry. This technique benefits both the horse and horse breeders.

Embryo transfer is the process of flushing an embryo from a donor mare and placing it in a recipient mare, who will carry the embryo to term. Embryos can now be shipped, just like semen and this affords a lot of possibilities to the mare owner.

Valuable donor mares can stay at home, continue competing and avoid the risks associated with foaling. Mares that are physically unsound or have reproductive problems can now have foals.

The technique in skilled hands is becoming more commonplace. The embryo can be transferred to the recipient mare immediately on site or be shipped in a medium for up to 24 hours to a large herd of recip-

ient mares. This time frame allows cross country travel and greatly improves the possibilities and pregnancy rates of this procedure.

Management of the mares, both donor and recipient, is very intense. Daily ultrasound examinations and manipulation of the mare's estrous cycle are needed to achieve pregnancy.

If you are considering this method of equine reproduction consult with your veterinarian, stallion owner, and breed association.

Mitch Hutchinson, DVM



The Foaling Mare Management Guidelines

The birth of a foal is a highly anticipated event for many horse owners. Good management practices are essential to a successful breeding program. A live, healthy foal represents the investment of considerable time, money and effort. Management is especially important prior to the time the foal is weaned. The mare and foal should be on a regular worming, exercise, vaccination schedule along with an adequate nutritional program. It is also best to establish a relationship with a veterinarian who will be available for advice and/or emergency calls. Early management can impact future health throughout the foal's life.

The gestation period of the individual mare may change from one year to the next. The "normal" length of gestation is 340 days; however this is an average, "normal" pregnancies range from 315 to 365 days.

PRE-PARTURATION FOAL PROTECTION

Approximately 4 to 6 weeks prior to the anticipated foaling date, the mare should be boosted with vaccines to provide high levels of antibodies in her colostrum (first milk). Consult your veterinarian for recommendations on which vaccines to administer, but as a minimum, the mare should be boosted with tetanus toxoid.

SIGNS OF APPROACHING FOALING

Mares may exhibit all or none of the following signs:

- Musculature around the tail head becomes soft and flaccid 2 to 4 weeks before foaling.
- The genitalia relaxes
- The udder begins to fill during the same period.
- The mare may show signs of uneasiness during the last two weeks of gestation
- Waxing of the teats (sticky droplets on the ends of the teats) occurs 24 to 28 hours before parturition.
- Milky fluid may leak from the teats for hours or days before labor onset.
- Protrusion of "Milk Veins" along the lower side of the abdomen.
- Some mares, especially maiden mares, might not produce milk until after foaling.

Tail or Hindquarters rubbing.

ONE WEEK BEFORE EXPECTED FOALING

Move the mare to a foaling area and change the feed ration. It is recommended that the grain be reduced and a more bulky ration be fed. A mare should be switched to a ration which includes bran at least 1 week before foaling. 2 kilograms of oats and 4 kilograms of bran morning and evening is recom-

mended to decrease the likelihood of constipation before and after foaling. This ration will also discourage heavy milk flow, thereby decreasing the chance of scours in the foal and mastitis in the mare. After foaling, the grain can be increased gradually over a 10 day period until a full grain ration is resumed.

The Three Stages of Labor

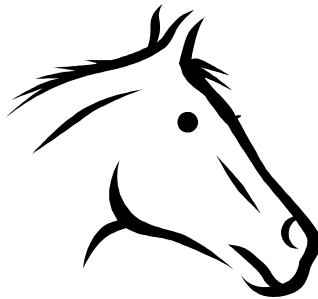
STAGE 1

During the first stage of labor which will last from 2 to 24 hours, the muscles of the pelvic girdle relax, allowing the bones to spread so the foal can be positioned toward the birth canal. Movement is often noticeable as the foal turns into position. The abdominal wall above the flank and behind the ribs becomes concave, and the tailhead becomes more prominent. Uterine contractions cause nervousness, erratic eating, sweating, pacing, tail switching and frequent urination. Colic can also cause these signs, and it is possible for a mare to become colicky from constipation prior to foaling. If the colic signs become severe or the signs continue for hours, call a veterinarian.

STAGE 2

The second stage of labor can last from a few to 30 minutes and include contractions and delivery. It is important to leave the mare alone at this point if birth is progressing normally. Disturbances may interrupt or prolong the birth process. The mare has very powerful uterine contractions, and when the unborn foal is positioned in the birth canal properly, delivery can occur in a relatively short period of time (10 to 15 minutes). Birth usually occurs shortly after the outer water bag ruptures.

If birth does not occur within a reasonable length of time (20 to 30 minutes) after strong contractions begin or shortly after the rupture of the water bag, malpositioning may be present, and a veterinarian should be notified. Presentation of the foal's front feet occurs first in a normal delivery, soles down, relatively close together, one slightly more advanced than the other to help reduce the circumference of the foal's shoulders and easing passage through the pelvis, the nose of the foal should be tucked between the extended forelegs near the knees.



Most mares position themselves on their sides, with their legs fully extended during the delivery of the foal; however, some insist on standing. Standing mares should be held to prevent excessive walking. If the mare delivers standing, someone should catch the foal and gently lower it to the ground to prevent injuring the newborn foal and to prevent the tearing of the umbilical opening in the abdominal wall and predispose the foal to a hernia. The urachus (tube leading to the urinary bladder) may also tear, causing urine leakage into the foal's abdomen. If the mare lies down next to a wall or fence, make sure there is plenty of room for the foal's delivery, or cause the mare to rise and allow her to select another location not so close to an obstacle.

The mare will usually rest after the passage of the shoulders and again after the passage of the hips. Do not pull on a foal progressing slowly through the vagina. If birth progress stops for more than 10 minutes in one spot, apply gentle traction times with the contractions. If the foal feels "locked in," rotate the body one way, then the other; this might allow the hips to slip through the pelvic opening of the mare. **Call a veterinarian if this technique is not immediately successful.** Walk the mare until the veterinarian arrives.

Suspect malposition of the foal and call a veterinarian when:

- only one foot is present
- more than two feet are visible
- feet are upside down
- the nose does not appear
- the nose appears without the front feet.

As the foal emerges, the inner sac usually breaks. If the sac does not break, free the foal from the sac and wipe the nose and mouth. Foals not breathing well should be rubbed vigorously with a towel to stimulate breathing. Allow the foal to lie quietly behind the mare for 10 to 25 minutes until the pulsation's in the umbilical cord cease. This allows the foal to receive the blood remaining in the placenta still attached to the uterus. Then crush or cut the navel cord and separate it three inches from the body and dip in antiseptic to destroy bacteria, help dry up the stump, and prevent infections. Dip the stump again in a few hours. Some individuals also dip the feet (a possible portal of entry for bacteria). Caution should be used as a mare's disposition can change quickly from friendly to aggressive at this time due to maternal instinct.

STAGE 3

The afterbirth is expelled during the final stage of labor with the aid of uterine contractions. This process usually occurs within 3 hours, with normal range from 10 minutes to 8 hours. The placenta should be tied in a knot that hangs above the mares hocks to prevent her from stepping on it and tearing it out prematurely. Premature pulling of the placenta can cause irreparable damage to the mare's reproductive tract and may cause part of the placenta to be retained.

Once the membranes are expelled, these contractions continue to decrease the size of the uterus. Colicky symptoms may also appear at this time which are caused by contractions of the uterine muscles. The placenta is expelled inside out. Membranes which are not expelled within four hours are considered retained. Do not pull on these retained membranes. Tie them near the mare's vulva to keep the mare from walking on them. A veterinarian should treat a mare with retained afterbirth to prevent possible uterine infection and founder (laminitis). Membranes which are passed should be saved in the plastic bag for the veterinarian to examine. Self examination can be performed, you can fill the placenta with water, any tears or missing parts may indicate the mare has retained a portion of the placenta. Retained placenta, even small pieces, could impair future breeding ability.

During this time, the mare will clean the foal which should be trying to stand. Foals not standing within the first 2 to 4 hours

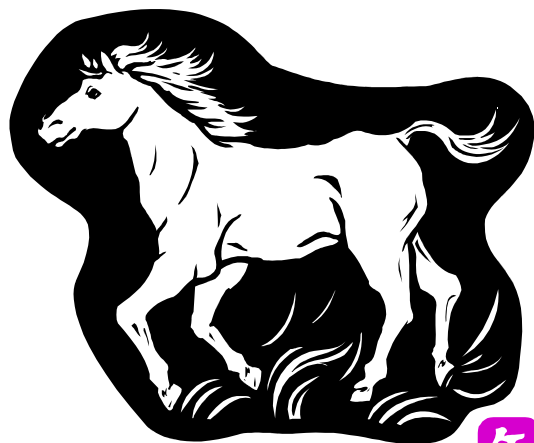
after birth may be weak or abnormal and may require special treatment. The mare should be "milked out" and the foal fed 4 to 8 ounces. This will stimulate most of the slow starters. The foal also needs first milk (colostrum) before 6 hours pass to help combat disease and to aid in eliminating fecal material which has built up in the intestinal tract.

"Milking out" a small amount of milk by hand will open and clean the teat ducts. Check the teats for soreness. Some mares will not accept their foal readily if their udder is inflamed. Once on his feet, the foal will generally find his way to the udder. Let the foal find the teat himself; to help him by forcing his head is futile. Maiden mares should be held during this first nursing in the event they become anxious and kick at the foal.

An enema to help the foal pass meconium (sticky feces in the rectum and colon) is a preventive step because retained meconium in the intestine can harden and become impacted, causing the foal to strain to defecate and flag his tail back and forth. A word of warning regarding the enema: lubricate the tip and gently place no more than 3 cm inside the anus and all care should be taken to prevent the perforation of the intestine. The foal usually passes pieces of yellow-yellow-brown manure (meconium). If the foal fails to defecate, becomes constipated or colicky, call a veterinarian.

Soon after parturition a veterinarian should examine the mare and foal for abnormalities such as cleft palate, heart defects, cataracts and musculoskeletal disorders. At this time, the veterinarian can also vaccinate against tetanus and administer any appropriate antibiotics. He should also examine the mare for damage to the reproductive tract and palpate the udder to check for mastitis. The mare should receive a tetanus toxoid injection at this time. The placenta should be examined to make sure it is completely intact.

Good foaling management is an important aspect for optimum health and survivability of both the mare and the foal.



Please insert your
logo and details
here!

Contact us ???



Warmblood and Thoroughbreds
www.sandongrove.com.au



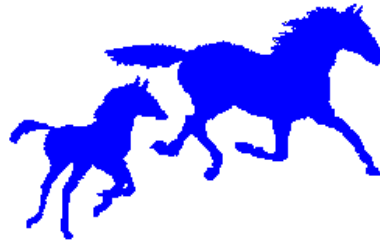
Armidale Veterinary Hospital
133 Marsh St
Armidale NSW 2350

Guyra Veterinary Clinic
207 Falconer st
Guyra NSW 2365

Uralla Veterinary Clinic
116 Bridge St
Uralla NSW 2358

6771 2022 (Armidale)
6779 1016 (Guyra)
6778 3133 (Uralla)

New England



Horse Breeders

New England Horse Breeders is a non profit association focused on promoting horse breeding in the region to the rest of the country. The region provides ideal condition for breeding and raising horses and as such produces some of the finest horses in the country. All breeds are represented in the region and as such are represented by this association.

We need to promote this to the rest of the country!!

Our mission is to:
Promote horse breeding in the New England region of NSW.

We do this by:
Compiling **Stallions Standing in the New England**

Media advertising.

ie regular full page advertisements in Horse deals showcasing local horses for sale, as well as stallions standing in the region.

Presence at Agricultural shows, Trade shows and Horse Events.

Inaugural New England Young Horse and Stallion Gala (planned for 2009)

Ongoing Breeding Education Seminars for Members

Please contact Jason Andrews for further information

jason@armidalevet.com.au

02 - 6771 2022 (W) 02 - 6775 3846 (H)

Sandon Grove Equine - Foaling Service

Sandon Grove offers a foaling down service. The mares are fitted with foaling alarms while agisted in grassy yards with special fencing for the safety of your mare and foal. Foalwatch foaling prediction kits are used to determine the time of foaling within 72 hours. All foal IgG levels are tested between 6 and 12 hours after birth to ensure successful passive transfer of immunity from Mare to foal.

We aim to give the foal the best start possible.

Please contact us for further details 02 6775 3846 or jason@sandongrove.com.au

www.sandongrove.com.au