• Isolate mares vaccinated for the first time against EVA for three weeks following breeding to an EAV carrier stallion (there is no need to revaccinate mares that need to be rebred).
• In breeds or areas with high rates of EAV infection, it is recommended that all intact males between 6 and 12 months of age be vaccinated as advised by your veterinarian.

If An Outbreak Occurs
In the event of an EVA outbreak, prompt action can prevent the disease from spreading and minimize its immediate and long-term economic impact. Follow these guidelines:
• Isolate affected horses as soon as possible.
• Notify your veterinarian immediately.
• In consultation with your veterinarian, have the diagnosis of EVA confirmed by a qualified laboratory.
• If a mare has aborted, place the fetus and placenta in a leak-proof bag, refrigerate it and send to the nearest appropriate laboratory for testing.
• Disinfect the stall, equipment and facilities using a phenolic disinfectant as advised by your veterinarian. After treatment with disinfectant, dispose of bedding by composting in an area away from horses.
• Wash down the mare’s hindquarters and tail with an antiseptic solution as advised by your veterinarian and keep her separated from other horses for at least three weeks.
• Restrict the movement of all horses to and from the farm or ranch as advised by your veterinarian.
• Suspend breeding operations until the outbreak is over. Notify mare owners.
• Vaccinate all at-risk horses as advised by your veterinarian.

Immunization
Horses naturally infected with EAV develop a strong immunity against EVA, which can last for at least several years. Horses can also acquire immunity by being vaccinated against the disease.

Consult your veterinarian for information about an appropriate vaccination program to meet your individual needs. Vaccination should protect a horse against the disease for at least a year.

A blood test can confirm whether a horse has antibodies to the virus and the level of its immunity to this infection. This test cannot differentiate between a horse that is positive for antibodies to EAV as a result of vaccination or from natural exposure to the virus.

The EVA vaccine should be administered to stallions not less than four weeks prior to their use for breeding. There is no evidence that a vaccinated stallion will shed the virus in the semen or that the modified live virus vaccine against the disease can set up the carrier state.

A mare being vaccinated for the first time and bred to a carrier stallion should not be placed in contact with antibody negative horses for at least three weeks after her breeding date. While the vaccine will protect her from illness, she is almost certain to experience a limited re-infection cycle from the virus in the semen.
Equine Viral Arteritis (EVA) is a contagious disease caused by equine arteritis virus (EAV). While it is rarely life threatening to otherwise healthy adult horses, EVA is of special concern to horse breeders because it can cause abortion in pregnant mares, death in young foals and render breeding stallions permanent carriers of the virus.

Although EVA outbreaks occur infrequently, EAV is present in horse populations in many countries. While the virus is known to infect many breeds of horses, the prevalence of infection is much higher in certain breeds, most notably, Standardbreds and Warmbloods. This may be due to the high frequency of the carrier state in stallions of these breeds.

Clinical Signs
Most horses exposed to the virus will develop no signs of the disease. If illness does occur, EVA can be difficult to diagnose because it is clinically similar to several other equine diseases, such as Equine Rhinopneumonitis, influenza, Equine Infectious Anemia (EIA) and Purpura Hemorrhagica. The clinical signs vary in range and severity and can last from 2 to 14 days. They include:

- Fever
- Swelling, most notably the legs, scrotum, sheath, mammary glands and above or around the eyes
- Loss of appetite (anorexia)
- Depression
- Conjunctivitis – inflammation and discharge
- Nasal discharge
- Skin rash (frequently localized on the head and neck, but can be generalized)
- Abortion in pregnant mares
- Pneumonia and death in young foals
- Possible short-term subfertility in stallions that experienced significant fever and scrotal edema

Diagnosis
The only definite means of diagnosing EVA is by laboratory testing. The virus can be detected in various tissues and fluids such as nasal or conjunctival secretions, semen, blood, placenta, fetal fluids and tissues. More commonly, the blood is screened for the presence of antibodies to the virus.

Collection of samples for testing should be instigated as soon as possible after the horse is noticed ill to increase the likelihood of confirming a diagnosis. Screening for the carrier state in the stallion involves initial serological examination testing to determine if the stallion has antibodies to EAV or not. If seropositive, a sample of semen containing the sperm-rich fraction of the ejaculate should be tested for evidence of the virus. Your veterinarian will determine which laboratories are proficient in testing for EAV infection.

Transmission
EAV infection can be transmitted among horses in four different ways:

- Respiratory: An acutely-infected horse spreads the virus to other in-contact horses via respiratory secretions (exposure commonly occurs at racetracks, shows, sales and other events).
- Venereal: Virus shed in the semen of an infected stallion is transmitted to mares when they are bred.
- Indirect contamination: The virus is transferred indirectly through the use of contaminated tack or equipment shared among horses or on hands or clothing of personnel handling animals.
- In utero: Virus passes across the placenta from an infected mare to her unborn foal.

Carrier State
A variable percentage of sexually mature colts or stallions infected with EAV may become long-term or permanent carriers of the virus. Since this is an androgen-dependent carrier state, EAV does not establish persistent infection in geldings, mares or sexually immature colts. Carrier stallions may/may not have exhibited prior clinical signs of EVA. The virus is harbored in certain of the accessory sex glands and shed into the semen whenever a carrier stallion is bred either naturally or by artificial insemination. Carrier stallions are clinically normal, serologically positive for antibodies to EAV and appear to experience no adverse effects on their fertility related to viral persistence in their reproductive tract.

Currently, there is no fully proven therapeutic means of eliminating the virus from a carrier stallion’s reproductive tract. A small percentage of long-term carriers do, however, spontaneously clear the infection from their systems.

Prevention & Control
Using sound management practices can help prevent and control EVA:

- Isolate all new arrivals (and returning horses) to your farm or ranch for 3 to 4 weeks.
- If possible, segregate pregnant mares from other horses.
- Blood test all breeding stallions for EAV antibodies.
- Check semen of any unvaccinated, antibody positive stallions to identify carriers before breeding.
- Vaccinate all breeding stallions annually.
- Physically isolate any EAV carrier stallions.
- Restrict breeding EAV carrier stallions to vaccinated mares or those whose blood is positive for naturally-acquired antibodies to the virus.
- Vaccinate mares against EVA at least three weeks prior to breeding to a known carrier stallion.