

WHAT IS BIOSECURITY?

Almost everyone in the horse racing world is aware of the EIA outbreak that is currently ongoing. The outbreak is at high enough levels that the whole horse industry has started to take notice. The origin of the current outbreak has not been released but the method of transmission has been confirmed to be iatrogenic (induced unintentionally by medical treatment or procedure). In addition to EIA, EHV -1 keeps appearing. Breeders are worried (justifiably) and starting to wonder what they can do and what a strategies can be implemented to reduce risk.

You will hear veterinarians use the term biosecurity. So exactly **What is biosecurity?** Biosecurity is the practice of preventing the spread of disease causing agents that can harm people, animals, crops and the environment. These are diseases that will cause a economic impact to your business. If you do not have in place a biosecurity program please consider the following information if you to decide its time to implement one. If you already have a biosecurity program in place it may be time to review it.

Things to consider:

There are multiple potential modes of transmission of any disease agent on a breeding farm. You can have any of the following:

1. Direct horse to horse, especially nose to nose, contact.
2. Respiratory transmission by either aerosol or droplet from one horse to another
3. Oral (ingestion) - contaminated hay, grain, water or contact with a contaminated surface.
4. Venereal transmission by live cover or AI
5. Fomite - Contaminated equipment including twitches, leads, buckets, trailers, hoses, footwear, clothing, etc.
6. Transmission through advanced reproductive techniques or iatrogenically through blood contaminated equipment.
7. Vector borne transmission - horse flies, mosquitoes, ticks and other insects.

Grouping diseases in categories by the ability to prevent/ treat versus those that testing is the only available option may make options more clear for the farm owner/manager. at what stage would you implement each bio security strategy.

Prevent/Treat: EHV (Equine HerpesVirus1,3,4) - "Rhino, virus"; EIV (Equine Influenza Virus) - "Flu"; WNV - "West Nile, virus"; VEVEE (Venezuelan, Eastern, Western Equine Encephalitis) - "Sleeping Sickness, virus"; Tetanus (Clostridium tetani) - "Tetanus, bacteria"; Rabies (Rabies virus) - "Rabies, virus"; Strep. Equi (Streptococcus equi equi) - "Strangles, bacteria"; EAV (Equine Arteritis Virus) - "EVA, virus"; CEM (Taylorella equi) - "Contagious Equine Metritis, bacteria"; + others not common in New Mexico. The above mentioned may be either preventable through a vaccination program and/or treatable with veterinary guidance. Most are either state or federally reportable animal diseases of economic significance.

Test Only: Equine piroplasmiasis (Theileria equi or Bayesian caballi) - "Piro, protozoan parasite"; EIA (Equine Infectious Anemia) - "Coggins (test), virus". Both are federally reportable animal diseases with no effective vaccination or treatment available.

Best practices:

- Avoid mixing different classes of horses (avoid turning layups out next to broodmares, etc). Pregnant broodmares should be isolated from any new arrivals.
- Require a Coggins test 30 days prior to arrival, a health certificate 10 days prior to arrival.
- Establish vaccination protocols. This can be discussed and developed with your farm veterinarian. Require new animals arriving to the farm to follow the same protocol. The goal of vaccination is to provide herd immunity through individual protection.
- Do not use non USDA or FDA approved blood products (including plasma). There are Documented EIA outbreaks have occurred from unlicensed plasma.
- Develop a routine method of quarantining new animals for a minimum of 2 weeks. The quarantine will allow potential underlying issues to mature prior to exposing horses that may be at risk. The routine could consist of daily rectal temperature, obtain vaccination history to ensure follows farm protocols, and minimize human transfer by handling those in quarantine last. This simple step could prevent an abortion storm of the farm's broodmares due to EHV.
- All equipment should be thoroughly cleaned between each use. Eliminate
- cross contamination of equipment (including between stallions and between classes of horses).

- Leah Starr, DVM