

February 2017: Biosecurity knowhow

The focus of this month's article is biosecurity, mainly how to evaluate and improve biosecurity on your property to reduce the incidence and spread of disease. We highly recommend checking out the "Biosecurity Risk Calculator" created by the University of Guelph as a fun and educational way to assess your biosecurity program. Give it a try at <http://equineguelph.ca/Tools/biosecurity.php> . Another great resource is the "Equine Biosecurity Principles and Best Practices" created as a biosecurity guide for horse owners by the Alberta Veterinary Medical Association. Get the PDF at http://albertaequestrian.com/wp-content/uploads/2015/03/2014_biosecurity_book.pdf .

What's all the fuss about?

The purpose of a barn biosecurity program is to prevent entry of disease into a horse population, like a stable or equestrian centre, and reduce spread of disease between horses within that population. This includes common infectious bacterial and viral diseases, external and internal parasites, and emerging diseases that are not yet recognized in your geographical location.

What are the biggest risk factors?

The first step in developing your biosecurity program is sitting down and identifying the risk factors for your property, which are highly dependent on the type of property, location, and horse factors. Common risk factors for most properties include:

- New horses with unknown vaccination and worming history entering the property.
- Bringing horses back from shows and events where your horses were in contact with horses from other regions and/or with unknown vaccination histories.
- Bringing horses onto your property from across country borders, especially from geographical areas where different diseases are common.
- High density horse populations like large boarding facilities, race tracks, and ranches.
- Properties with stagnant water during the spring and summer which support insect populations.
- Properties near wildlife populations as wild animals can be carriers of disease and support insect populations.

How can those risks be mitigated?

Developing a sound biosecurity program can be a lot easier if you are the sole owner of your horse property, however it is completely doable in a multi-owner or boarding facility environment. We recommend organizing wellness days at multi-owner properties to make sure that all of the horses on a property are vaccinated and wormed at the appropriate times of the year. All horses should receive core vaccinations on a yearly basis, and your veterinarian can help you decide if other risk-based vaccinations will be required for your housing and showing situation. Pregnant mares and young horses will require more frequent vaccination. Remember that all of the horses on a property need to be vaccinated in order to protect the entire population and prevent disease spread.

The next step is developing a quarantine policy for all new entries onto a property. The ABVMA recommends that new horses are quarantined for 2-3 weeks; if that is not feasible, new horses should receive a physical examination and be monitored for signs of disease for at least 7 to 10 days. Use this

quarantine time to vaccinate and deworm horses with unknown medical histories. Quarantine areas should ideally be separate from the main stable or pasture areas to prevent direct contact between horses. Take the time to thoroughly disinfect stalls between horses and try to reserve a pasture for quarantine horses only as they are likely to shed parasitic worms following deworming. It's also important to disinfect horse trailers between transporting horses on/off your property.

If you attend shows and events off of your property, it shouldn't be necessary to quarantine your horse when re-entering your property as long as you take precautions during your travels. We recommend avoiding travel if you suspect your horse is sick. Adhere to CFIA regulations for crossing country borders and show ground regulations for required vaccinations and Coggins testing. When boarding your horse somewhere new, try to avoid communal water sources and minimize contact with horses not from your barn.

Finally, put in place an effective vermin and insect control plan. Rodents, birds, and insects can act as carriers of disease both externally and internally. Simple changes like securing grains and concentrate feeds from vermin, disposing of manure more frequently, and using fly sheets can help reduce this risk.

Despite best efforts, one or more horses on a property has developed a communicable disease. What can be done to reduce the spread?

Work with your veterinarian to create an isolation protocol ideally before you're faced with a problem. We've listed the main points and considerations to get you started on your own isolation protocol. Central to containing an infection, whether it be bacterial, viral, or parasitic, is isolation of affected horses from unaffected horses. Clear communication between everyone who handles horses on the property is key to creating compliance, and posting signs around the barn can help remind everyone to follow the protocols.

- Isolate affected horses from unaffected horses so that there is no physical contact between them. Having separate barns is ideal, but isolation is possible with any property situation using temporary fencing. Sick horses may require treatment at a veterinary hospital with dedicated isolation facilities.
- Monitor all in contact horses carefully for signs of disease.
- Feed and treat affected horses last. If possible, have 2 groups of people and equipment for handling the affected and unaffected groups.
- Create barriers, like rope fencing, between groups and place foot bath disinfection stations at crossing points.
- Put up signs to delineate groups and remind people to disinfect their hands and boots.
- When working with affected horses, wear personal protective equipment including gloves, coveralls, and rubber boots that can be thrown away or disinfected easily.
- Wash your hands with soap or gel disinfectant between handling each horse.
- Disinfect all equipment and the environment frequently, especially if affected horses are moved into or out of stalls. Concrete flooring and plastic walls make for ideal isolation stalls as they are easier to disinfect than dirt flooring and wood paneling.
- Keep in mind that many disinfectants are inactivated by organic material like feces and bedding, so foot baths need to be changed frequently and stalls must be dug out completely before disinfecting.

- Dispose of feces and bedding from affected horses in a dumpster and do not spread feces onto pasture to avoid pasture contamination.

The tips provided in this article are merely the basics. We encourage everyone to try the Biosecurity Risk Calculator, chat with your veterinarian, and develop a detailed biosecurity program for your property.

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