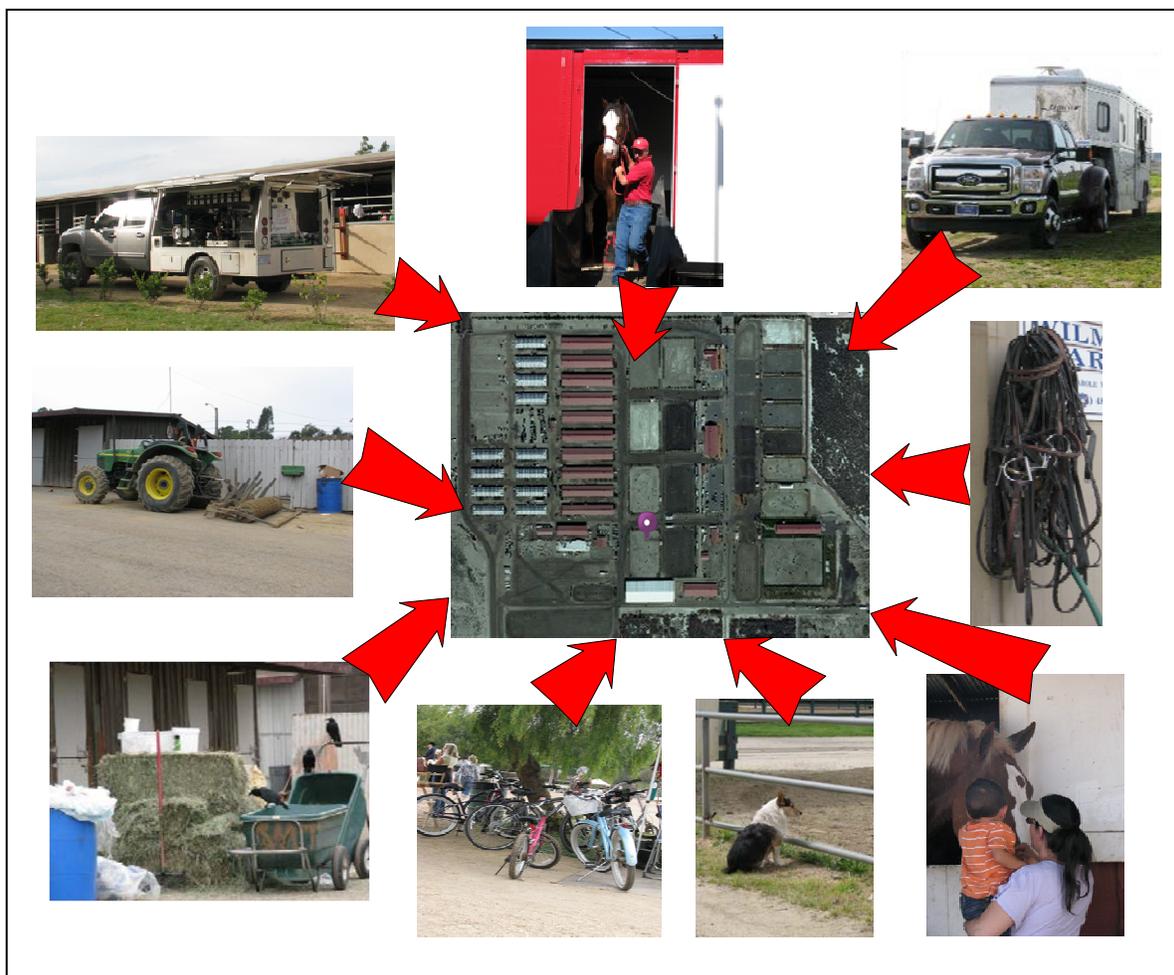


A Biosecurity Plan for Equine Events

Development of an equine event biosecurity plan is an important step in protecting the health of all horses on the event premises. An assessment of biosecurity risks for each venue is necessary and an event-specific biosecurity plan should be developed to address each of the disease risks identified. An event-specific biosecurity plan should address the specific disease risks for the particular venue site and horse population. Successful implementation of the biosecurity plan relies on event staff, participants and spectators understanding and complying with the policies and procedures of the plan. Ideally, the event biosecurity plan should be incorporated in the rules and regulations of the event, communicated to all individuals before the event and prominently displayed with signage at the event. The plan should include monitoring during the event to ensure compliance with biosecurity policies and procedures. The American Association of Equine Practitioners (AAEP) provides guidelines to equine veterinarians on biosecurity and infectious disease control at equine events. Event managers are encouraged to consult a veterinarian to assist in the biosecurity assessment process and plan development.

The below photos illustrate various ways an infectious disease agent can be introduced and spread at an equine event venue. When evaluating the event venue, consider the horse, trailers, tack and equipment, visitors, pets, bicycles and golf carts, feed and bedding delivery systems, tractors and farrier or other vendor vehicles as biosecurity risks and determine what steps can be taken to control the risks.

Equine Event Biosecurity Assessment



Equine Event Biosecurity Assessment

Initially, conduct a biosecurity assessment of the equine event venue and evaluate current management practices and identify potential disease risks. Assess the facility layout and construction, animal entry requirements, horse stabling, manure disposal, feed and hay storage, equipment handling, cleaning and disinfection procedures, potentials for horse-to-horse contact and horse-to-other species contact, isolation facilities for sick horses, vector and wildlife control, visitor access, traffic control and record keeping. Address the risks identified in the assessment in the biosecurity plan for the event. In the event of an animal disease outbreak, more stringent practices will be required to control disease spread.

HINT
The best way to assess biosecurity risks is to follow a horse around the premises.



Use an aerial view of the event venue to visualize and identify potential risk areas for disease pathogen entry and spread.

1. Facility Layout: The biosecurity assessment of an equine event venue involves determining the risk of potential introduction and spread of disease for the particular venue layout and construct. The facility design may significantly influence the ability for disease pathogens to be brought to the premises and spread throughout the facilities and the animal populations. Complete elimination of disease risk is impossible; however, understanding and evaluating the risk factors for the venue site enables the event manager to implement appropriate management practices to reduce the risk of a potential infectious disease outbreak at their equine event.

A complete facility biosecurity assessment should include assessment of the stalls (number, size, construction and location), the availability of an isolation area (location, access and suitability), the feed and water areas (storage, sources, handling), the communal wash stalls (number, construction and location), exercise areas (size, location, level of possible horse-to-horse contact, equipment, sanitation) and the parking areas (location, separation and signage). An assessment template and pictorial assessment document are available in the Appendix A and C to assist in the assessment of the facility. (See Appendix A - Event Facility Biosecurity Risk Assessment Text Version and Appendix B for Equine Event Biosecurity Risk Assessment Pictorial Version and Appendix C for Equine Event Biosecurity Policy Risk Assessment)

2. Animal Entry Requirements: Animals entering the event venue are a potential source of infectious disease agents. Assess the event entry policies and procedures to determine the risk of disease agent introduction. Permit only healthy horses to enter the venue grounds and have enforceable rules for refusing entry of unhealthy horses to the event. Ideally, event staff should observe horses upon arrival to confirm animal identification, check health documents and observe horses for general signs of good health. Apply similar animal health standards for other species of animals entering the venue as well. As an added precaution, equine entry to the premises should be restricted to only those equines participating in the event.



Are healthy horses entering the grounds?

3. **Horse Stabling:** Horses participating in multi-day equine events are often housed for extended periods of the day in barns or stables. Some events, such as fairs and exhibitions, may house multiple types of animals under one roof. Horse-to-horse contact, horse-to-human contact and horse-to-other animal contact are all potential routes for disease spread within the stables. When evaluating the biosecurity risk of the stabling area, assess the ability for horses to contact other horses, humans and other animals. Disease transmission risks increase with ability for direct or indirect contact. Additionally, evaluate the ventilation and air flow to ensure adequate air circulation, which aids in reducing potential exposure to respiratory disease pathogens or ammonia. For exposure to a respiratory pathogen, such as influenza, 100 horses stabled under one roof would all be considered exposed, however, with an exposure to *Streptococcus equi* (strangles) more direct contact would be required to be considered exposed.



Horses in stables with stall doors facing outward have lower disease risk due to better air circulation. However, there is an increase disease risk associated with potential contacts with other animals or humans passing by the stables.

4. **Stall Sanitation:** Bacteria, viruses and parasites may remain viable in the manure, bedding and stall material. Therefore, evaluate stall cleaning protocols to ensure frequent and proper cleaning and disinfecting of stalls before and after each horse use to reduce potential exposure to disease agents. Direct observation of stall cleaning procedures will help determine the potential disease agent transmission risks associated with equipment handling, manure movement and disposal, and stall cleaning and disinfection protocols. (See Appendix D - Cleaning and Disinfection of a Vacated Stall)

5. **Manure, Soiled Bedding and Hay Disposal:** Infectious disease organisms may be shed and remain



Designate position of manure piles away from foot and vehicle traffic area. This will reduce exposure risk to pathogens.

viable in horse manure. Handle manure as a risk material, especially when there is an infectious disease outbreak. Manure and soiled bedding present in foot or vehicle traffic routes, or in areas where fluids accumulate, pose a potential risk for the spread of infectious disease agents. Evaluate manure and waste disposal protocols to determine the location of manure piles in relation to vehicle and foot traffic, horse stabling areas, pastures and surface water. A wheelbarrow used for multiple barns can potentially spread disease to a larger geographic area compared to use of a designated wheelbarrow for a single barn or a single barn aisle. Never use a manure wheelbarrow to move feed or clean bedding. Evaluate the frequency and scheduling of manure removal from the collection point to ensure that procedures for prompt removal are in place. Frequent manure removal aids in eliminating parasites and insect breeding sites. Evaluate the manure disposal method to ensure that fresh manure is not spread on horse pastures. Thorough cleaning to remove organic material and disinfecting of stables and stabling areas reduce the level of pathogens.

6. **Water Source and Disposal:** A shared water source can result in risks for pathogen spread. Event venues which have a communal water trough or water from a shared water source have a higher risk of potential disease transmission. Events which require individuals to bring their own water buckets to fill from a



Pathogen-sharing is effective with use of communal water troughs.

water faucet have a lower disease transmission risk. Water hoses, although helpful to exhibitors, have the potential to spread disease if inserted into multiple buckets or left lying on the ground between uses. Natural water sources, such as streams or ponds, also pose a significant disease risk due to an inability to control water quality or prevent contamination with disease agents. Contamination of natural water sources can be due to wildlife, fecal material, urine and environmental toxins, so use of natural water sources at events should be avoided. Proper water disposal is important for disease control since used water or water remaining in the buckets have the potential to carry respiratory pathogens and also serve as a breeding ground for mosquitoes. Evaluate water disposal methods to ensure that water buckets are emptied directly into a drain or onto manure piles to eliminate disease agent transmission risk.



Feed and manure handling supplies should be securely stored separately to prevent contamination.

7. Feed and Hay Storage: Evaluate the location, security and sanitation of feed and hay storage areas. Store feed in sealed containers to eliminate access by vermin, birds or other animals that have the potential to transmit disease. Hay should be free of dirt and mold, stored off of the ground and be kept covered. Feed storage bins, equipment and feed/water buckets should be routinely cleaned and disinfected. Feeding equipment should be stored separately from manure handling equipment.

8. Horse-to-Horse Contact: Infectious disease pathogens can spread easily from an infected horse to a susceptible horse by direct or indirect horse contact. Horses may shed infectious disease agents, such as bacteria, viruses or parasites, in body fluids, such as saliva, sweat, nasal discharge and feces. Evaluation of all potential for contacts is important for the development and implementation of biosecurity practices to minimize risk of disease spread. At equine events, horses may have direct contact with other horses in the stabling area, exercise area or in the exhibition arena. Horses may have indirect contact with other horses through contact with a surface, such as a fence or stall wall, contaminated with secretions from an infected horse. Horses tied closely along fences outside competition arenas may have direct contact with other horses or indirect contact with surfaces potentially contaminated by an infectious disease agent.



Congregating horses creates the potential for exposure to disease agents by direct contact with another horse or indirect contact with a surface potentially contaminated with an infectious disease agent.

9. Horse-to-Other Species Contact: Horses may harbor infectious disease pathogens that may infect other livestock species. Some of these pathogens may be merely carried by the horse but not cause disease in the horse. Dogs, which are often brought to equine events, may also be a potential mechanism of disease spread at the equine event. Evaluation of all potential horse-to-other species contacts is important for development and implementation of biosecurity practices that can minimize risk of disease spread by this route. If protocols are put in place to restrict other animal contact with horses, evaluate them for compliance and enforcement.

10. **Traffic Control:** Vehicles entering the equine event venue may carry infectious disease pathogens on their tires or undercarriage. Evaluate vehicle traffic flow to determine if vehicles should be prohibited from the horse traffic areas. Also evaluate the adequacy of signage for designated vehicle traffic routes and parking areas for exhibitors, haulers, and visitors.



Designated vehicle parking limits disease transmission risk.

11. **Record Keeping:** Accurate records of event participants and horse arrivals and departures are necessary when evaluating disease exposure risk of the population. Current and accurate records of horses at the event and valid exhibitor contact information are essential to an investigation and response to a disease outbreak at an equine event. A map of the event venue, indicating locations of event activities, stables, fence lines, traffic flow, water sources and parking areas, should be part of all disease prevention plans and are needed in disease incident investigations. Evaluate event records, tracking documents (ability to track animal movement while on the premises and once they have left the premises) and maps of the event facility to ensure that they will contain pertinent information to compliment the biosecurity and infectious disease control plans. (See Appendix E - Record of Attendance at Equine Events)

Biosecurity assessment of these important areas will reveal potential risk factors for the introduction or spread of an infectious disease agent. The biosecurity and infectious disease control plans for the event should then be tailored to address the identified risk factors for the venue to the best extent possible.