Basic Equine Facility Biosecurity For Horse Owners and Horse Professionals

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Introduction

Biosecurity for the race track or boarding stable involves adopting procedures to prevent the introduction and spread of a disease in horses. Many normal appearing horses can be carrying a virus or shed an infectious agent which can be passed from horse to horse when biosecurity practices are not used. This document presents biosecurity principles that should be used in any facility where there is a concentrated, transient horse population. Following these principles will minimize the risks and keep horses healthy for optimal performance and prevent a life-threatening outbreak which can result in the closure of the race track facility.

ANYTHING that touches an infected horse or carries secretions or manure from sick horses has the potential to transfer pathogens to other horses.

Disease causing organisms can be spread by equipment, people, vehicles, insects, birds, vermin, feed, waste, water, and air.

General Biosecurity overview at the racetrack or boarding stable[1]

Visitor Access to Horses

- Restrict and/or monitor visitors to prevent contact with horses. Visitors can inadvertently spread disease if specific sanitation procedures are not followed. One visitor can easily spread infectious agents to many animals. It is recommended to keep visitors out of the stable, shed rows and stalls if they don't need to be there.

- Maintain a record of visitors to the barn to improve the ability to respond in case there is an outbreak and spread of disease.

New Horse Arrivals

- Obtain and record recent history of new horse arrivals and determine previous location(s) during the past thirty days and current medical status of the horse. New horses can bring new diseases to your barn. A period of quarantine (time period?) (isolation) before placing close to your other horses is ideal, but if not practical, use the highest biosecurity level described below you can accomplish.

Horse Equipment and Tack

- Don't share any horse equipment with neighbors or other horse people.

- Thoroughly clean your equipment if it has been used by other horses/people. Use detergent and disinfectant before use on your horse. This includes tack, bits, rugs,

saddlecloths, feed and water bins. Request vets, farriers and others providing horse services to use clean/sanitized equipment on your horses.

Personal Biosecurity

- Some diseases can be easily carried on people's clothing, hats, hands, shoes, and hair.
- Change into clean clothes and footwear; wash your hands with soap and water; and blow your nose before leaving the racetrack to come into contact with other animals offsite. Sometimes it may be necessary to have a shower, wash your hair and put on clean clothes (see levels of biosecurity)

Trailers and Trucks

- Clean and decontaminate with disinfectant according to protocol the interior of the trailer or vans in between usage .

Cleaning and Disinfectants

- Proper cleaning requires removal of all soil, organic material, snot/mucus with a detergent so the disinfectant can be effective.
- Disinfection can then be achieved with the use of household products such as common detergents and soaps (e.g. washing powder), washing soda, household chlorine bleach, hypochlorites, swimming pool disinfectant and citric acid. Check concentration and exposure times on the label.

Illness Surveillance and Reporting

- Report horses that appear ill or have a high temperature to the appropriate supervisor in your barn. Contact your veterinarian as soon as possible. The vet can determine if the horse is in need of quarantine or a visit to the hospital and whether the illness should be reported to the Official Veterinarian or other authorities.

Biosecurity During The Presence of Disease or High Risk Conditions

Biosecurity Levels of Alerts and Actions are required to manage containment of disease spread.

- Biosecurity begins at the front entry gate. Color-coded signs that show the different biosecurity alerts shall be posted to let visitors know that the area is bio-secure.
- The personnel at the track entry gate will distribute a copy of biosecurity guidelines to all personnel who enter the gate. All visitors will be informed of biosecurity measures before entering of the area that is in quarantine and not to enter that area.
- A record of all vehicle traffic shall be maintained to track trip origination and destination in case of the need to investigate disease spread.
- The grooms/trainers/designated personnel will post approved signs with instructions for controls during an emergency/outbreak depending on the level of bio-security as shown at the entrance to the facilities. Signs will be provided by racetrack management.
- The signs will be placed by the stalls or upon entry to the stable
- Bio-security booklets will be posted in each barn.

- Biosecurity Training Video for the new stable hands to watch upon starting work (English/Spanish)
- Training courses for how to use rescue equipment and move a down horse with EHV-1 or other virus/infection

Specific Biosecurity Guidelines

Three levels of Biosecurity are based on specific risk factors that are determined by a veterinarian.

Entry to the horse facilities will be marked with color-coded biosecurity signs stating what level of biosecurity is needed and what protocols should be followed. This is based on whether there have been increased risks of a virus or other infection or a disease outbreak as determined by the track veterinarian.

Green- Daily, Normal level of biosecurity –limited access
Yellow- Protective clothing, restricted access
Red- Quarantine, restricted access, maximum biosecurity

Descriptions

Green-

- Routine hand-washing is required between handling horses from different barns including pony horses. Personnel should wash hands before and after work shift and before eating a meal.
- Contain animal waste and avoid the spread of fecal material and stall waste around the grounds.
- Avoid inserting dirty water hose end into the water buckets.
- Prevent feed supply from contacting ground or vehicles that have been contaminated with stall waste or animal feces.
- Disinfect equipment: i.e. bits, lip chains, (shared equipment), do not share tongue ties or wipe clothes or anything that enters the horse's mouth or nose
- Take rectal temperature on any horse noted as being "off", report temp greater than 101.2 to trainer, your veterinarian or the track veterinarian

Yellow In addition to all measures listed in Level Green

- Wear outer protective clothing including overalls, rubber over boots or plastic disposable boot covers dedicated to use in a specific barn or area in the barn
- Wear disposable gloves while handling infected animal
- Wash hands between contact with every horse
- Sanitize all shared tack between animals i.e. saddles, bridles, bits, lip chains, halters, grooming supplies
- Do not share tongue ties or wipe rags between horses
- Separate water buckets should be used, if not, disinfect bucket between horses
- Separate grooming supplies should be used, if not, disinfect before use on next animal

- If a horse has a temperature greater than 101.2 degrees, report to your trainer, your veterinarian or the track veterinarian

Red **In addition to all measures listed in Level Green, and Yellow**

- Sanitize all shared tack between animals i.e. saddles, bridles, bits, lip chains, halters, grooming supplies
- Separate water buckets should be used, if not, disinfect bucket between horses
- Separate grooming supplies should be used, if not, disinfect before use on next animal

Red Zone Quarantine Area

- Post approved signs
- Wear protective clothing including overall, rubber over boots or plastic covers
- Wear disposable gloves while handling infected animal
- Use disinfectant saturated foot mats or foot baths filled with disinfectant when entering and leaving the stall
- Restrict access to stalls and record on sign-in sheet who has entered and left the stall
- Designate on person to feed, clean and care for infected animal
- Manure to a separate bin that is disinfected or dealt with accordingly
- All clothing should be washed after use
- Do not relocate animals without consultation with racetrack management and veterinarian(s).
- Reporting:

  If your horse is showing signs of sickness please contact your trainer followed by a call to your veterinarian or the track veterinarian. They will be able to address whether the horse needs to be put into quarantine or sent to the hospital. Be sure to tell your veterinarian if the horse is febrile (having a fever) so that they can get the proper equipment beforehand to help stop the spread of infection.

Quarantine:

- The first step may be to isolate the sick horse(s) by placing them in a separate barn/ stabling area or moving them to the designated quarantine station. All other horses that have come into contact with this horse should be maintained in their barns and segregated during exercise periods until the sick horse has been confirmed to have a specific infectious disease.

- If new clinically ill horse(s) are identified in other locations within the equine facility, an additional focal quarantine of exposed horses should be instituted at that location. The area under quarantine may be expanded to include other affected barns.

- If multiple cases are identified or suspected, the entire stable area may need to be quarantined. The optimum strategy should be the prudent imposition of a series of focal quarantine procedures using an expanding series of "concentric rings" of disease control.

- High Risk (Red) signs should be placed up around the areas to alert other people not to traffic though the facilities and also to remind staff to wear and practice the appropriate techniques to help keep the virus from spreading to other barns.

- How to remove a neurological horse to quarantine:

- If the horse is showing neurological signs, they will not be able to move to quarantine or a trailer on their own. A rescue glide should be used to transport the horse to the appropriate place. A veterinarian should aid in the process as well as someone who is trained in large animal rescue techniques. The horse will need to be strapped to the glide or in some cases will not have to be. Simply pull the horse on the glide to the trailer or other facility. A portable winch system can also be used. After use, the rescue glide will need to be disinfected. The trailer will need to be disinfected after use.

Racetrack Biosecurity….(Level Red Quarantine)

- The starting gate should be kept clean by using disinfecting wipes on all gates after each race. The pony horses will need to be wiped clean after each race. (The tack, jacket, coat of the horse should all be wiped down). Temperature on pony horses should be taken as well. Personnel at the starting gate should wear protective gloves and remove them after each race to put on a new pair. Hand sanitizer should be used after each race as well. The lead shanks from personnel at the starting gate should be disinfected in antiseptic solution in bucket at the side of the starting gate between each race.

- Manure and bedding will be collected and stored in special bins. The equipment used to clean up after each race should be sprayed down with disinfectant after each race.

- Receiving barn should be kept as clean as possible with the same disinfecting protocols used. The horse should have its own bucket brought to the receiving barn and if it doesn't then one should be provided that will be disinfected afterwards.

- Horses being hot walked should not share a bucket of water to drink out of. Horses on the hot walker should have their chains disinfected after use.

- Feed trucks and trucks that deliver feed and bedding should spray down their tires and wheel wells with disinfectant before leaving the premises. Private veterinarian, farrier, and track veterinarian should do so as well.

- Sharing of water buckets should always be discouraged but never during an outbreak. Sharing of stalls is always a risk; during an outbreak every effort needs to be made to minimize sharing of stalls and, at a minimum, to clean stalls between horses.

- People who move between different barns like farrier, private veterinarian, track veterinarian, horse identifier, horseshoe inspector, feed trucks and those that deliver feed and bedding, stall cleaners if they are different than dedicated grooms, are potential sources of barn to barn transmission. Remind those with contact with your horses to use appropriate biosecurity measures. .

Appendix

Large Animal Universal Veterinary Infectious Disease Precautions

Handling diarrheic animals or those suspected of contagious respiratory disease or other potentially contagious disease include:

1. Wear disposable gloves and plastic booties or rubber shoes when handling an animal. Rubber footwear, if used in place of plastic booties, must be scrubbed with disinfectant and dipped in a bleach foot bath outside the stall. A boot brush must be used to thoroughly clean the bottom of the boot.
2. Wash hands before and after handling the animal. Frequent hand washing has been proven to be the most important component to prevent the spread of infectious diseases.
3. Wear a **clean** lab coat or coveralls that remain at the horse's stall. Dirty lab coats or coveralls are to be laundered.
4. Use a thermometer that is assigned to the horse. Do not share thermometers between horses.
5. The horse should be kept in the stall; IDC officer permission is required if the horse is to be taken out of the stall.
6. If a diarrhea case, fecal samples are to be submitted daily for salmonella culture and on the first day a Clostridium difficile toxin assay should be performed.
7. The person handling the animal is responsible for ensuring that the area/equipment is cleaned and disinfected before leaving the area.

Hand Washing Protocol

1. Hold drying towel under arm for use after washing hands to avoid touching dirty faucet or towel dispenser.
2. Use warm or hot running water.
3. Use soap (preferably antibacterial).
4. Wash all surfaces thoroughly, including wrists, palms, back of hands,
5. Fingers, and under fingernails (if possible, with a nailbrush).
6. The generally accepted correct hand washing time and method is a 10- to 15-second vigorous rubbing together of all lathered surfaces followed by rinsing in a flowing stream of water.
7. If hands are visibly soiled, more time may be required.
8. When drying, begin with your fingertips and work towards your elbows.
9. Pat your skin rather than rubbing, to avoid chapping and cracking.
10. Turn off faucet using the drying towel.
11. Apply hand lotion after washing to help prevent or soothe dry skin.

Disinfectant Dilutions[3]

The following chart lists disinfectants approved by the United States Department of Agriculture for field use in the event of a foot and mouth disease outbreak but is very useful and can be applied for use anytime disinfects are needed.

Product	Dilution	Mixing Instructions	Notes
5.25% Sodium Hypochlorite (NaOCl) (household bleach)	3%	Add 3 gallons of chlorine bleach to 2 gallons of water; mix thoroughly.	
Acetic acid*	45%	Add 6.5 ounces of glacial acetic acid to 1 gallon of water; mix thoroughly.	Vinegar is a 4% solution of acetic acid.
Potassium Peroxymonosulfate and Sodium Chloride (i.e., Virkon-S)	1%	Follow label directions.	Virkon-S
Sodium Carbonate (soda ash)*	4%	Add 5.33 ounces of sodium carbonate to 1 gallon of hot water (or 1 pound to 3 gallons of hot water); mix thoroughly.	The solution is mildly caustic but can dull paint and varnished surfaces.
Sodium Hydroxide (NaOH) (lye)*	2%	Add 1/3 cup of NaOH pellets (2.7 ounces of the lye) to 1 gallon of cold water; mix thoroughly.	This solution is highly caustic. Use protective rubber clothing, gloves and safety glasses, **WARNING**: Always add the lye to the water. Never pour the water over the lye.

Disinfecting a trailer[2]

Level of disinfection
All cleaning and disinfection will be carried out so as to reduce the risk of transmission of disease.

Transportation vehicles are required to be disinfected
1) In the case of animals transferred in the trailer

(a) the following shall be disinfected whether or not they are soiled: all the inside surfaces of those parts of the means of transport in which the animals are transported, all parts of the means of transport to which the animals may have had access during the journey; and

(b) the following shall be disinfected if they are soiled -

(i) any detachable fittings not used during the journey;

(ii) any other part of the means of transport; and

(iii) any equipment.

2) In the case of animals transported in a trailer, the interior of the trailer should be disinfected whether or not it is soiled, and the exterior of the trailer and any parts of the means of transport carrying the trailer shall be disinfected if they are soiled.

3) The wheels, mudguards and wheel arches of the means of transport shall be disinfected whether or not they are soiled.

Cleaning the trailer
Cleaning shall be by removing any feeding stuffs to which animals have had access, litter, excreta and other material of animal origin, mud and other contaminants using any appropriate means, and then cleansing with water, chemicals or chemical compounds (or, if necessary, any combination of these) until free of dirt.

Disinfecting
After cleaning of the trailer has been completed, disinfection using the proper dilutions will need to be completed.

Routine Stall Cleaning and Decontamination of a Vacated Stall

1. Vacated stalls should be mucked out, cleaned and disinfected as soon as possible after a horse leaves (certainly within 4 hours). Wear outer overalls and gloves while cleaning stall.
2. Cleaning stalls should be done in a between stall and dumpster
3. After removing all bulky and coarse materials (feed, bedding, and manure) by shoveling, attempt to completely remove the remaining (small-particle) materials by sweeping with a broom into a pile, and then sweeping the pile into the shovel.
4. No high pressure water is ever used for cleaning stalls.
5. The balance of the stall cleaning and disinfection process is as follows:
6. Gently rinse the inside of the stall door, the walls and the floor with low pressure water (no nozzles). Attempt to wash all visible loose particulate matter toward and into the drain.
7. Scrub the inside of the stall door, all four walls and the floor with foaming agent soap, using stiff-bristle brushes, and at least 20 pounds of force:
8. First, thoroughly scrub all of the corners and edges of the stall with one of the special brushes provided for this purpose.
9. Next, scrub each of the four walls, in turn. Start at the left-hand corner, as high on the wall as you can reach with your brush, and scrub an 18 to 24-inch wide area, using horizontal strokes, working toward the floor.
10. Rescrub this same area, this time using vertical strokes.
11. Move 18 to 24 inches to the right on the wall, and scrub another 18 to 24-inch wide section, slightly overlapping the area which you have just finished scrubbing.
12. Continue this process until you have double-scrubbed all four walls and the inside of the door.
13. Utilize the same double-scrubbing pattern on the floor.
14. Some areas within the stall (gate hinges; between pipes; waterers; hay racks; feed buckets; pipes; latches; ledges) should be cleaned with a designated specific designed brush.
15. Next, gently rinse off the entire foaming agent. If any manure, blood, dirt, etc. is still "caked" on the walls or floor, these spots should be rescrubbed with foaming agent until clean. Any particulate matter left in the stall at this point should be gently rinsed into the drain, or swept up and removed.
16. Finally, all surfaces within the stall are disinfected three times:

    a. The inside of the stall door, all four walls, and the floor are sprayed with bleach 4 oz/gal, using the same stiff-bristle brushes and double-scrubbing pattern. Waterers, hayracks, feed buckets, pipes, latches, gate hinges, and ledges are also sprayed with bleach 4 oz/gal.

    b. After allowing a minimum contact time of ten minutes for bleach 4 oz/gal to disinfect, gently rinse the inside of the door, the walls, the floor, and all other stall

surfaces and equipment with water. Then once again spray the stall with bleach 4 oz/gal.

c. After this third double-scrubbing with bleach 4 oz/gal, the disinfectant is not rinsed off, but is allowed to dry on the walls and floors.

17. Dirt floors after thorough cleaning can be saturated with bleach solution and left to dry.
18. The outer stall door should not be opened until a new horse is to be introduced.
19. After the vacated stall has been cleaned and disinfected, the associated flooring should be double-scrubbed with foaming agent soap. Then, the floors should be sprayed with bleach 4 oz/gal, and the walls, sink, faucet handles, counters, shelves, jugs, containers, buckets, pails, trash cans, fan and light switches, etc. should be sponged/wiped/sprayed/dipped with/in a single application of bleach 4 oz/gal. The disinfectant is not rinsed off. Instruments, equipment and miscellaneous tack (dose syringes, stomach tubes, twitches, halters, lead ropes, endoscopes, etc.) should also be sterilized with cold sterilization with Nolvasan (chlorhexidine) solution.
20. After the walls and floor have dried (usually in 1 to 2 hours), the stall is inspected by the supervisor, or other designee. If there is any organic matter (feces, bedding or feed) or other dirt still present, the stall must again be double-scrubbed with foaming agent, and then sprayed one more time with bleach 4 oz/gal.
21. Immediately prior to placing a horse in a stall, the stall should be visually inspected and passed by the supervisor.
22. Shovels, brooms, brushes, etc. used in cleaning a stall should be placed in a disinfectant barrel after use, and should not be used for cleaning any other stall.

Respiratory Infectious Disease Surveillance

1. Viral
   a) Horse with unexplained fever and nasal discharges or cough should have the following samples submitted:
   CBC
   Nasopharyngeal swabs for equine influenza (ELISA) and EHV-1 and EHV-4 and EVA PCR and/or viral isolation.
   Serum saved for titer
   b) If concurrent lymphopenia (<1400/ul) present or Influenza (Flu) positive or EHV-4 or -1 (respiratory form) positive, isolate horse.
   c) If horse is neurologic and is positive for EHV-1 in buffy coat, nasopharyngeal swab, or CSF it is to be moved to isolation (see neurologic case section)

2. Bacterial (strangles)

Horse with RESPIRATORY PRECAUTIONS (confined to stall, gloves, lab coats, booties or foot bath) and should have the following samples submitted:
Pharyngeal swab for gram stain and culture for Strep. Equi.
If positive, move horse to isolation.
If negative, maintain RESPIRATORY PRECAUTIONS.

Neurologic Infectious Disease Surveillance

1. Gloves should be worn at all times with all neurologic cases.
2. EHV-1

a. Any horse with neurological signs compatible with EHV-1 infection should be tested for EHV-1 using PCR analysis on pharyngeal swab or buffy coat. These signs include but are not limited to recumbency, dog-sitting, albuminocytologic dissociation with xanthochromia on CSF tap, or concurrent fever. Any horse with neurologic deficits that is positive for EHV-1 on nasopharyngeal swab or buffy coat is to be moved to isolation.

3. Rabies or Unidentified acute (< 20 days) neurologic disease:

a. Any horse with a suspicion of rabies or any acute (defined as < 20 day duration) neurologic disease should have IDC protocols (gloves, coats, foot bath) set up at the stall.
b. A sign stating “Rabies Suspect” must be in place
c. A sign-up sheet recording every person in contact with the horse is to be posted at the stall.

Methicillin Resistant Staphylococcus aureus (MRSA)

Animals with MRSA infections must be placed under ‘IDC Protocol” and will be stall-confined except for urgent diagnostics/procedures.

The veterinarian-in-charge may determine that cases must be transferred to Isolation on a case by case basis, particularly when exudate or discharge is present.

Bleach as a Disinfectant

1. Chlorine solutions will gradually lose strength, so fresh solutions must be prepared frequently. Diluted solutions should be replaced after 24 hours. The stability of chlorine in solution is greatly affected by the following factors:

- chlorine concentration,
- presence and concentration of catalysts such as copper or nickel,
- pH of the solution,
- temperature of the solution,
- presence of organic material, and
- ultraviolet irradiation.

2. The chlorine solution should have the following characteristics for maximum stability:

- low chlorine concentration,
- absence or low content of catalysts such as nickel or copper,
- high alkalinity,
- low temperature,
- absence of organic materials, and shielded from ultraviolet light by storage in the dark in closed containers

3. Factors Affecting Chlorine Biocidal Activity

- pH - Chlorine is more effective at a lower pH
- Temperature - An increase in temperature produces an increase in bactericidal activity.
- Concentration - A fourfold increase of chlorine will result in a 50% reduction in killing time and a twofold increase in a 30% reduction.
- Organic Material - Organic material will consume available chlorine. If the organic material contains proteins, the reaction with chlorine will form chloramines which will have some antibacterial activity. Loss due to organic materials is more significant if minute amounts of chlorine are used.
- Hardness - Hardness of the water does not have a slowing effect on the antibacterial action of sodium hypochlorite.
- Addition of Ammonia or Amino Compounds - Addition of ammonia and nitrogen compounds will slow the bactericidal action of chlorine.

4. Other Available Chlorine Compounds

Other active chlorine compounds that are available are liquid chlorine, chlorine dioxide, inorganic chloramines, organic chloramines, and halazone.

5. Characteristics and Hazards

Chlorine combines with protein and rapidly decreases in concentration in its presence. It is also inactivated to some extent by natural non-protein material and plastics and is not compatible with cationic detergents. It is a strong oxidizing agent that is corrosive to metals. Chlorine should not be used on the metal parts of centrifuges and other machines which are subject to stress when in use.

Chlorine may cause irritation to the eyes, skin, and lungs. For additional hazard information, see the Material Safety Data Sheet for sodium hypochlorite, aqueous solution. Wear safety goggles, rubber gloves, aprons, or other protective clothing when handling undiluted solutions.

Note: The US EPA and Cal EPA have defined disinfectants (antimicrobials) as pesticides. All EPA-registered antimicrobials must be used according to

California worker safety regulations. This includes bleaches such as Clorox and Purex and other commonly used chlorine cleaner/disinfectants.

Reference Sources for Equipment and Services

Protective Clothing and Equipment

Trainers should provide protective clothing and equipment to be used when a horse is ill or during an outbreak. Some packages can be found at:

- Biosecurity kit for equine practice
  - Come in two sizes
    - Jorgenson's laboratory, Loveland, CO
      - Toll free: 800.525.5614
      - Or email Info@jorvet.com
      - Website http://www.jorvet.com/
        Direct Link:
http://www.jorvet.com/catalog/product_info.php/products_id/5128
      - Questions: Norm Jorgenson
    - Global Protection West Berlin, NJ
      - Toll Free: 800-957-8955
      - Or email jon@globalprotectionusa.com
      - Website www.globalprotectionllc.com
      - Questions: Jon Denker

Sample testing

During an outbreak it is important to test your horses with a nasal swab and whole blood samples. The samples can be sent to UC Davis for testing.

UC Davis has two laboratories that are capable of performing diagnostic tests:

California Animal Health and Food Safety Laboratory
Submission forms and shipping requirements
www.cahfs.ucdavis.edu/
(click on "Standard Submission Form")

Lucy Whittier Molecular and Diagnostic Core Laboratory
Submission forms and information
www.vetmed.ucdavis.edu/vme/taqmanservice/diag_home.html
(click on "Submission Forms" in left column)

Samples for EHV-1 testing should consist of nasal swabs and whole blood samples drawn in EDTA tubes.

Where to get rescue equipment:

Each racetrack should consider having a rescue glide and a UC Davis large animal lift (LAL) to assist with neurological cases or recumbent horses. The glide can be purchased from CDA Products (707-743-1300) and the lift from Large Animal Lift Enterprises (www.largeanimallift.com/)

The Center for Food Security and Public Health at Iowa State University has a web page that provides information on many significant zoonotic pathogens. You can bookmark this website for a quick reference.
http://www.cfsph.iastate.edu/DiseaseInfo/default.htm
Here is a website with information on characteristics of Selected Disinfectants
http://www.cfsph.iastate.edu/BRM/resources/Disinfectants/CharacteristicsSelectedDisinfectants.pdf

EHV-1 Information: http://www.vetmed.ucdavis.edu/ceh/ehv1_general.cfm

Donations

Donations to improve equine health can be made to the:

Regents of UC
University of California, Davis,
Veterinary Medical Teaching Hospital
One Shields Drive
Davis, Ca 95616

Phone: (530) 752-6630

Email: dlmatz@ucdavis.edu

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2. Crown. (2003) Cleansing and disinfection of means of transport. Retrieved on March 25, 2008 from http://www.opsi.gov.uk/si/si2003/20031724.htm

3. National Emergency Response to a Highly Contagious Animal Disease, Executive Summary, March 30, 2001 http://www.aphis.usda.gov/oa/pubs/fcc412.pdf

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Signs


RESTRICTED ENTRY
This is a
BIOSECURE FACILITY
Please comply with ALL posted Biosecurity Signs
HIGH RISK
MEDIUM RISK
LOW RISK
Help keep our animals healthy
Fort Dodge Animal Health
UCDAVIS
UNIVERSITY OF CALIFORNIA