The FEI has produced some general biosecurity guidance providing maximum information and best practices for setting up isolation units and managing horses in isolation. These include step-by-step recommendations for properly setting up an isolation unit; guidance on how to monitor the health of your horses with the help of a printable temperature monitoring chart; information concerning the important hygiene measures that need to be implemented and respected in isolation units.

This information is a crucial tool in containing the spread of equine diseases.

Should you have specific biosecurity questions relating to your personal situation please consult your veterinarian for further advice.

**SETTING UP AN ISOLATION UNIT**

**How do I know which is the best area of my yard to set up an isolation unit?**

The best types of stables to use are those:

- located outside rather than in a barn
- located away from other horses
- have solid walls from floor to ceiling to create a physical barrier and eliminate shared airspace.

The material from which the stables are made should also be considered as this can impact the ability to clean and disinfect them effectively.

Wooden stables have porous, rough surfaces which make cleaning and disinfection very difficult. Modifications can be carried out such as filling holes and knots in the wood with plastic wood products or caulking, and applying marine varnish. This results in a smooth, waterproof surface that is easy to clean and disinfect.

Concrete blocks also have porous, rough surfaces which can trap organic matter. Applying enamel or heavy duty outdoor paint results in surfaces that can be easily cleaned and disinfected.

Asphalt floor can be washed and disinfected easily. Sand, dirt or compacted clay floors cannot be adequately cleaned.

**Isolation unit access**

Only personnel who are looking after the horses in the isolation unit should be given access. This is to prevent the possibility of disease transmission to other horses. Physical barriers constructed around the isolation unit can help to set clear boundaries and prevent inadvertent access.

Always make sure that any other horses are not walked in close proximity to the isolation unit.

**Stabling of horses**
When planning the stabling of horses in isolation, there are a number of key actions and considerations to be aware of:

- If possible, stable horses in the groups in which they travel and refrain from stabling the horses directly next to each other. It is useful to identify dedicated storage areas for the belongings of each horse to avoid them from being mixed up and used on other horses.

- Attach a clipboard containing the FEI’s Temperature Monitoring Record outside each stable for the recording of rectal temperatures.

- Identify a changing area near the entrance of the isolation stables so that clothing and footwear worn in the restricted area are not worn elsewhere.

- Provide hand washing facilities as well as hand disinfection gel for everyone handling horses. Make sure you provide separate protective clothing and footwear for those handling and treating sick horses.

- Communal water troughs must not be used.

- Keep a map of where each horse is stabled in the isolation unit and the dates during which the horse was stabled there. This is particularly helpful information for your veterinarian should any of the horses become ill.

**MANAGING HORSES IN ISOLATION**

Strict biosecurity practices must be implemented in isolation units to ensure that limit any potential for disease transmission within and outside the unit.

**Monitoring horse health**

The rectal temperature of each horse should be taken and recorded twice daily for the duration of the isolation. Fever can be an early sign of infection. If a horse develops a fever, it must be examined by a veterinarian.

As well as monitoring the horse’s temperature, it is important to assess the horse’s general appearance. Look out for discharge from the eyes or nose, changes in the consistency and number of droppings, how much feed and water the horse has consumed and how the horse is standing.

If any horse develops a fever or clinical signs of disease while in the isolation unit, you must contact your veterinarian.

**Feed and water**

Avoid using feed mangers that are integrated into the stable fittings if possible; feed from buckets instead. Water buckets should be filled using a hose or directly from a tap. The water bucket must not come into contact with the hose or tap. Do not lower the hose into the water when filling buckets.
Stables, feed mangers and yards should be kept clean, free of standing water, thoroughly scrubbed and cleansed with an appropriate detergent/disinfectant after use and then allowed to dry.

**Personnel**

Strictly limit access to only personnel who are looking after the horses. Ensure that everyone accessing the isolation unit understands the hygiene principles.

When working in the isolation unit ensure that you change your clothing before attending any horses that are not in isolation.

Always wash your hands thoroughly between handling each horse in the isolation unit.

Barrier clothing, waterproof footwear as well as disposable gloves should be used when working with sick and in-contact horses and disposed of or, laundered and disinfected, after use. Clothing worn in the isolation unit should be washed at the end of each day.

Attend to sick horses last e.g. feed, water and treat, or use separate personnel to care for these horses.

**Equipment**

EHV can be transmitted between horses via equipment, which is why precautions must be taken when using equipment associated with horse care.

Horse specific equipment e.g. feed and water buckets, head collars, should be clearly marked as belonging to an individual horse and only be used on that horse.

Shared equipment e.g. lead ropes, thermometers should be cleaned of organic debris and disinfected between horses.

Equipment that cannot be properly disinfected e.g. sponges or brushes must not be shared between horses.

**Pets**

Dogs, cats and other animals must not be allowed into the isolation unit. This is to prevent the potential for disease transmission within and outside the unit.

**Departure of horses from the isolation unit**

During isolation, horses must not leave the isolation unit. It is essential that the full period of specified quarantine is observed as advised by the FEI, your National Federation or local Veterinary Authority, along with additional time for the processing and evaluation of test results.

Horses must only be released from the isolation unit once they have fulfilled all testing requirement and on the advice of your veterinarian.

**Clean and disinfect stables after use**
Once a horse has left the isolation unit, you must clean and disinfect the stables. The FEI has published a guide to cleaning and disinfecting stables which can be accessed here.
CLEANING AND DISINFECTING STABLES

It is essential to implement high standards of hygiene to eliminate the virus from the horse’s environment and prevent transmission to other horses. Stables and horse transporters must be cleaned and disinfected before they are used between horses.

Cleaning and disinfecting stables is a multi-step process:

1. Remove all bedding and stable fittings such as feed and water buckets, haynets and rubber matting.
2. Sweep the walls and floor of the stable to remove as much organic matter as possible.
3. Wet all surfaces of the stable using a hose. It may be necessary to leave the stables for 30 min before continuing to soften caked-on organic matter to allow for easier cleaning.
4. Clean the stables walls and floor with a detergent to make organic matter easier to remove. It may be necessary to scrub the walls and floor to loosen organic matter. Alternatively, a low pressure power washer can be used however it must be used below 120psi to prevent the production of aerosols that spread infectious agents into the air.
5. Rinse the walls from the top downwards, starting furthest away from the drain or door. It is necessary to pay close attention to corners and crevices and to rinse the floor well.
6. Leave the stable to dry.
7. Dilute disinfectant according to the manufacturer’s instructions and apply it to the walls and floor. This can be carried out using a hand held sprayer or garden sprayer. Always ensure that suitable protective clothing is used when handling disinfectants.
8. Do not rinse the stable with water after applying the disinfectant. The stable should be left to dry as the contact time between the disinfectant and surfaces allow it to work effectively.
9. Ensure the stable is dry before filling it with clean bedding.
10. Remember to clean and disinfect and stable fittings before replacing them e.g. rubber flooring, feed and water buckets.

Which disinfectant should I use?

There are a number of disinfectants available for use however it is important that the most appropriate and effective disinfectant is used with respect to the horse’s environment.

The ideal disinfectant must be biodegradable, safe for animals and humans, ensure it is suitable for farm use, effective in the presence of organic matter and effective with respect to the local water hardness and ambient temperature.

Phenolic disinfectants are the most preferred for use in the equine environment. Iodophores are not often used in the equine environment and more suitable for the washing of hands and equipment. Quaternary ammonium compounds, hypochlorites
(e.g. bleach), chlorhexidine and pine oil are not recommended since they are ineffective in the presence of organic matter. Formaldehyde disinfectants are highly toxic and not recommended for use in the equine environment.

CLEANING OF EQUIPMENT AND CLOTHING

Contagious diseases can not only be transmitted from one horse to another through close contact, but also via equipment and clothing. It is very important to ensure that these items are cleaned and/or disinfected after use, between horses.

Shared equipment e.g. lead ropes, bits/bridles, twitches, thermometers, grooming kits etc. should be cleaned of organic debris and disinfected between horses

Feed mangers and buckets should be kept clean, free of standing water and thoroughly scrubbed and cleansed with an appropriate detergent/disinfectant after use and then allowed to dry

Cloth items e.g. stable rubbers, towels, bandages etc. should be laundered and thoroughly dried between each use. Disinfectant may have to be used as part of the rinse cycle

Footwear and barrier clothing e.g. overalls must be laundered and disinfected after each use

Disposable overalls and gloves should be carefully discarded after each use

Equipment that cannot be properly cleaned and disinfected (e.g. sponges or brushes) should not be shared between horses.