

## ADVICE TO HORSE OWNERS ON DISINFECTION FOR EQUINE INFLUENZA

The equine influenza (EI) virus does not persist long in the environment outside the host, except in moist and cool conditions.

It is quickly inactivated by exposure to ultraviolet light or sunlight, and by heating. However, the virus has been shown to persist in water for 14 days at 4°C and up to 2 days at 37°C; in horse urine for 5–6 days; and in soil under sunlight at 15°C for 8 hours.

EI virus does not persist in horses which have recovered from the disease. The virus is present in the carcasses of animals (eg young foals) that die as a result of EI but it is not known how long it can survive there. If a horse dies from EI it is important that there is no contact with the carcass. EI must be reported to veterinary authorities and if a horse dies as a result of the virus, it is those authorities who will organise removal of the carcass.

In conditions of moderate humidity and temperatures, the virus can survive on hard, nonporous surfaces such as stainless steel and plastic for 24–48 hours, and for up to 12 hours on paper and clothing. Influenza viruses have been shown to transfer from such materials onto hands.

EI virus can be inactivated within 30 minutes by a range of disinfectants and chemicals. Soaps and detergents break down the protective coating around the virus which it cannot survive without.

### GENERAL SURFACE DECONTAMINATION

**Before disinfecting it is very important to thoroughly clean surfaces by brushing with a detergent solution as fat, grease and other organic materials will lessen the effectiveness of a disinfectant.**

All material (including snot and mucus) must be removed from all surfaces prior to disinfecting. Use hot water and steam to effectively clean cracks and crevices in surfaces where the virus is likely to linger.

**In stables:** walls, ceilings and floors need to be cleaned and disinfected.

The natural processes of time, dehydration, warmth and sunlight will greatly assist the decontamination operation. A hot, dry, sunny day will cause rapid natural inactivation of the virus - the natural effects of solar heat, dehydration and UV radiation will quickly decontaminate fencing and rails in the open, but the virus is likely to persist longer on a cold, damp floor inside a shed.

**Sodium or calcium hypochlorite** (swimming pool disinfectant or household bleach) diluted 1:10 to achieve a concentration of 5000 ppm of available chlorine is very effective against the virus but only after organic material has been removed. Careful handling is required as hypochlorite can be toxic for eyes and skin.

**Citric acid**, a milder acid available as a powder, can be used safely for personnel and clothing decontamination at a concentration of 0.2% w/v.

A commercial disinfectant **Virkon®** is suitable for decontaminating surfaces and equipment and for foot and wheel baths, but is not approved for use on skin.

## PERSONAL DECONTAMINATION PROCEDURES

The following procedures should apply to all personnel before they leave an infected premises or any quarantined area.

The face, hair and skin should be washed with warm soapy water. Hands (including the nails) should be scrubbed thoroughly. On returning home, a person who has visited an infected premises or quarantined area should have a long, hot bath or shower.

**Plastic overalls** should be washed from top to toe, using a sponge or low-pressure pump, to remove all material; particular attention should be paid to the back, under the collar, zip and fastenings, the insides of pockets, the crutch, and the inside of the bottom of the trouser legs. The overalls should then be removed and placed in disinfectant.

Disposable high-density polyethylene overalls are an excellent alternative to plastic or cotton overalls. They can be used in combination with plastic aprons in areas of high contamination.

**Wellington boots** should be scrubbed down, with particular attention to the soles. All material must be removed from cleats and the tread of the boot.

If the person is returning to the site the next day, boots, hat, gloves and plastic overalls can remain on site. They should be removed from the disinfectant, placed in a clean area and allowed to dry. If the person is not returning, the items should be placed in plastic bags for removal for cleaning. The outside of the bags should be disinfected.

## HORSE FLOATS AND EQUIPMENT

**Floats and horse equipment must be thoroughly cleaned before they can be satisfactorily disinfected.**

All dirt and organic material such as manure and straw should be removed from floats and other equipment, and all surfaces washed and cleaned before being sprayed with a recommended disinfectant.

Vehicles and floats should have their wheels disinfected on entering and leaving properties through the use of wheel baths. **Disinfection will only work if items have been properly cleaned first and all solids removed.**

Feed bowls and troughs may be disinfected satisfactorily but lead ropes and rope twitches should be discarded (or soaked overnight in disinfectant) if they have been used on an infected horse.

Veterinary equipment such as thermometers and stethoscopes should be dedicated for use on particular premises; if this is not possible, they should be thoroughly cleaned and disinfected (eg with Virkon) between premises.