

BIOSECURITY GUIDELINES

MANAGEMENT OF TASMANIAN DEVILS

In captivity and field trapping

Endorsed by the *Save the Tasmanian Devil* Program Steering Committee
21 April 2008

BACKGROUND

Previous biosecurity requirements for the management of Tasmanian devils were reviewed by the Tasmanian Chief Veterinary Officer in light of the current knowledge of Devil Facial Tumour Disease (DFTD) and a number of changes were recommended.

These recommended changes have been included in this document which was endorsed by the *Save the Tasmanian Devil* Program Steering Committee on 21 April 2008.

FACTS AND ASSUMPTIONS

Critical to the development of biosecurity requirements are the following facts or assumptions:

- DFTD behaves as an infectious disease spread by direct contact.
- The disease is transmitted as live tumour cells. This is often described as an allograft but would possibly be better described as a syngenic tumour graft.
- There is no aerosol or insect spread.
- The DFTD cells do not survive long off the host. They die rapidly from desiccation and can be killed by range of disinfectants. The duration of survival may be extended for cells in large lumps of DFTD tissue.
- Pouch dependent young are at low disease risk of disease.
- Disease is expected to express within 12 months of infection.
- DFTD only affects Tasmanian Devils and does not affect any other species.

While the actual method of transmission from one animal to another is not confirmed it is likely to involve implantation of DFTD cells under the epithelium. A major route of spread is likely to be a penetrating bite from a devil with an ulcerated DFTD lesion around the mouth.

BIOSECURITY REQUIREMENTS

The general principle is *that there is negligible risk of transmission of DFTD on clean dry equipment*. If equipment cannot be dried between animals/groups it should be cleaned of obvious contamination and disinfected with an appropriate chemical (currently F10 or Biogram). Adequate disinfection is exposure to either 1% F10 or 2% Biogram for at least 5 minutes.

Ethanol 70% may also be used in appropriate circumstances (rinse off with ethanol, no holding time)

Vircon is no longer considered the disinfectant of choice for DFTD.

Equipment/clothing used in contact with diseased devils should be cleaned (ie obvious contamination removed) and disinfected, or cleaned and dried before using with disease free devils. In the case of clothing/overalls laundering and drying is sufficient without use of disinfectant.

Captive populations

Boots, overalls and equipment should be clean and dry or clean and disinfected prior to entry to the site.

When working on a site with a number of separate devil enclosures with devils of the same status (either all DFTD infected or all non infected) then when moving between pens the following applies:

- boots to be clean of gross contamination and dry, or cleaned and disinfected between pens
- overalls to be clean and dry. Overalls should be changed if heavily soiled with blood or tissue from diseased or high risk devils.

For sites where there are both DFTD infected and non infected devils:

- undertake activities in non-infected enclosures before working in infected enclosures;
- after working in infected devil pens, boots are to be cleaned and dried, or cleaned and disinfected, and overalls are to be changed if soiled before entering uninfected pens.

Feed

- Field shot game from *any* area in Tasmania is acceptable.
- Road kill should not be used (unless you saw it live and hit it in which case it is the same as field shot game).

Note: While the DFTD risk from roadkill is likely to be very low, it is recommended that research is conducted on holding roadkill in a chiller or freezing as a control of DFTD prior to amending this requirement.

Decontamination of infected pens

The most difficult area to decontaminate will be an inaccessible den area.

- Remove all devils
- general clean up including removing faeces, leftover feed, litter etc
- Clean off gross contamination on walls
- Clean floor of den where possible
- Spell pen for 1 month.

Pen design

Currently pens on government sites have 3m separation between pens. This was initially instituted to prevent short distance aerosol spread. As it is now considered that there is no aerosol spread this separation is no longer required for DFTD control, although maintaining separated pens may have other management advantages.

Pens on insurance population sites may share common walls provided the walls are solid and high enough to prevent a devil climbing over the top into the adjacent pen.

Field work

Traps.

When moving from one site to another traps should be scrubbed clean, disinfected and dried. Other field equipment cleaned and dried or cleaned and disinfected.

On a trap site, traps that have contained devils should be scrubbed clean and disinfected before resetting (may still be wet when reset).

Clothing

Overalls (including sleeves) that are grossly contaminated by blood or tissue from DFTD lesions should be changed or disinfected and dried before handling further devils. Sleeve guards or long gloves may be an alternative.

Clean boots and freshly laundered overalls must be used for each trap area.

Occupational Health and Safety

As DFTD is not considered to be spread by aerosol or zoonotic agents then there is no requirement for goggles or face masks for DFTD protection.

Gloves are still recommended for handling devils.