HYGIENE PROCEDURES FOR KAURI DIEBACK

Kauri dieback is a soil-borne disease that spreads through the movement of contaminated soil and soil water. It is possible that it also spread by streams and rivers particularly in times of flooding. By following hygiene guidelines you are helping to stop the spread of kauri dieback.

Ensure equipment is clean

Clean your gear before AND after leaving kauri forests:

- All footwear, tools and equipment and machinery must be totally soil-free when entering a forest area containing kauri. We recommend cleaning at the beginning and end of each day.
- Wheeled or tracked machinery, vehicles and ATVs pose a high risk and must be cleaned thoroughly to remove soil.
- Where possible, machinery and vehicles should remain on site for the duration of a job or project.
- All machinery should be clean before leaving the depot for a new work site.
- When you are in the field, all equipment should be cleaned before moving from one area of kauri into another.

Operators are expected to carry out their own inspections and cleaning, but these may be checked by local Department of Conservation (DOC) or council staff.

Avoid leaving formed areas

Vehicles and personnel should remain on roads and tracks where possible, particularly in wet conditions. If you are moving onto or off tracks, you must use portable phytosanitary packs to ensure that kauri dieback is not carried onto the track from surrounding kauri or between high risk areas. Phytosanitary kits must be used when leaving an area showing symptoms of kauri dieback disease.

Avoid work in wet conditions

Carry out operations under dry soil conditions where possible.

Avoid work around kauri

Select work sites, track routes and bait-lines which are away from kauri and watercourses where possible. Preferentially select sites which are down-slope of kauri areas.

Avoid sites prone to flooding or ponding in kauri areas

Streams pose a risk for transporting kauri dieback disease. When entering or exiting a stream system, you must use portable phytosanitary packs to ensure kauri dieback is not carried into the stream from surrounding kauri or between high risk areas.

Ensure raw materials are disease free

Do not source raw materials (soil/substrate/gravel) from kauri areas. Supplies for landscaping, track construction and revegetation work in kauri areas should come from a 'clean' source not containing kauri.

Contain vegetation and use low impact vegetation control methods around kauri

Use vegetation control methods that do not disturb the soil, such as mowing, slashing or herbicide application, in preference to grubbing.

If diseased kauri and vegetation (including weeds and native vegetation in diseased zones) are trimmed or cleared they must be left in-situ, composted for use on site, or disposed of at an appropriate landfill site. They must not go to green waste or into community weed bins. Please contact your local authority for further information.

If any soil/plant material is to be removed from a "controlled area" this must be managed with biosecurity approval. Please contact your local authority for further information.

General Considerations

- Avoid or restrict introduction of high-risk products (soil/ substrate/gravel/vegetation) to the area. If any high-risk products are required, they must be from reputable/biosecurity accredited sources.
- Consider managing or limiting vehicle access where appropriate.
- Ensure managers, visitors and users are aware when undertaking high-risk activities in an infected area.
- Encourage good hygiene practices by all users/visitors.
- If both infected/symptomatic and uninfected sites are identified within an area, hygiene measures must be taken to avoid soil transfer from infected to uninfected. Activity should be planned to move from uninfected to infected areas (not vice-versa where possible).

Phytosanitary information

Kauri dieback spores can be removed from footwear and equipment simply by scrubbing them with clean water to remove all soil then allowing gear to dry. However, while not essential, using Sterigene will increase the effectiveness of these hygiene measures.

We recommend using Sterigene disinfectant on footwear, equipment, machinery and other items that have been in contact with soil. Sterigene is a broad spectrum disinfectant which is non-toxic, non- corrosive, biodegradable and environmentally friendly compared to other products such as Virkon and Janola.

Alternatively Virkon and Janola may be used, however its application is limited in a forest situation and any application should be in accordance with the product's label instructions and Material Safety Data Sheet.

All gear should first be cleaned to remove soil. Sterigene should then be sprayed onto the clean surfaces (and left to dry). Sterigene will not kill kauri dieback spores that are embedded in soil hence it is important soil is removed first before applying the disinfectant.

Sterigene solution is effective for up to 12 months, however the approved shelf life is six months. A fresh solution of Sterigene should be obtained every six months.

Sterigene concentrate has a three- year shelf life. Expired Sterigene can be returned to DOC or your local council for disposal or simply used as a general detergent solution for general car cleaning.

Water, soil or slurry and Sterigene from cleaning dirty equipment needs to be disposed of carefully:

- Solution must be drained into waste water drains, not the stormwater system, or disposed of on a lawn or gravel pad.
- If necessary, expired Sterigene may be discarded on a lawn or gravel pad.
- Do not let Sterigene drain into septic systems.
- Sinks connected to waste water systems are ideal for cleaning equipment off site.

Further Information

For further guidance around hygiene of specific activities such as vehicle & heavy machinery; disposal of contaminated material; tree pruning; plant propagation; trapping; and a number of other forest user activities please consult the appropriate guide located at www.kauridieback.co.nz/how-to-guides/

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