

Environment and Rural Affairs Monitoring & Modelling Programme (ERAMMP)

ERAMMP Document-53: Field-Survey Handbook (Procedures) Biosecurity

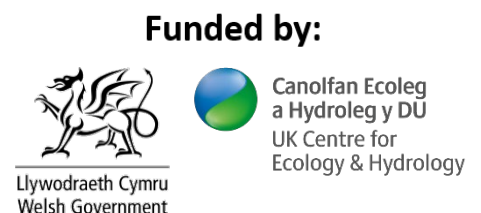
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1.2	Dan Jones (WG), SR	07/04/2022	Reviewed version 1.1, SR implemented changes
2.0	SR	14/04/2023	Reviewed disposal of diluted Virkon in the field (UKCEH internal process) Updated biosecurity links

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Abbreviations Used in this Report

COSHH	Control of Substances Hazardous to Health
ERAMMP	Environment and Rural Affairs Monitoring & Modelling Programme
INNS	Invasive Non-Native Species
NRW	Natural Resources Wales
PPE	Personal Protective Equipment
PRRS	Porcine Reproductive and Respiratory Syndrome
SHE	Safety, Health & Environment
UKCEH	UK Centre for Ecology & Hydrology

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1 INTRODUCTION

This protocol is aimed at anybody undertaking field surveys for ERAMMP. This includes the UK Centre for Ecology & Hydrology (UKCEH) field surveyors and any partners or sub-contractors.

Please read the entirety of this document and the relevant Health & Safety documentation before carrying out any work with disinfectants.

2 WHAT IS BIOSECURITY?

Biosecurity means taking steps to make sure that good practices are in place to reduce and minimise the risk of spreading invasive non-native species and animal or plant diseases. A biosecurity routine is essential, even when non-native species or signs of disease are not evident at a field site.

2.1 Why is biosecurity important?

Good biosecurity practice reduces the risk to farm and forestry businesses, the environment and wildlife, as well as being in the interests of wider businesses (e.g. tourism), landowners and other stakeholders. It is also essential to protect yourself, and practising good biosecurity can help reduce the risk of transmission of zoonotic diseases or infections, that can transfer to humans, and impact on human health. It also reassures the wider public by setting an example of good practice, displaying respect for local communities, and demonstrates a professional, preventative approach.

An outbreak can impact significantly on your own work and that of the project if, for example, your movement into the countryside is restricted, your fieldwork is stopped, or you are required to do extra work to respond to a crisis. Prevention of disease spread and risk should always be the priority, and it is always better and easier to take the necessary preventative steps, than dealing with a disease or infection occurrence.

It is your responsibility to ensure that you take proportionate measures to minimise the risk of transmitting disease or pests onto or off any site you are visiting, and to protect your own health. When undertaking the field survey activities you are the public face of ERAMMP and you should strive at all times to represent the project in a professional manner including in respect of biosecurity. You are required to undertake biosecurity measures that are significantly more stringent than those required of the general public when for example they use rights of way.

2.2 Where is biosecurity relevant?

The guidance cannot cover every eventuality and in some situations, complying with any specific requirements will be difficult in practice. If you are in any doubt how to proceed you should first contact the ERAMMP Field Survey Manager.

If, during a site visit, the presence of any disease or pest not previously known to be there is suspected, the field survey manager must be informed at the earliest opportunity. The field survey manager will be responsible for ensuring that appropriate reporting and investigation are implemented without delay and that temporary precautions are put in place until the outcome is known. The risk assessment undertaken at the outset of the visit must be reviewed and biosecurity measures amended accordingly. This applies regardless of ownership of the land concerned.

3 HEALTH AND SAFETY CONSIDERATIONS

When following this guidance you should be aware of the Health & Safety requirements for handling and using disinfectants and disposal of potentially contaminated clothing or equipment.

You will be supplied with COSHH and information forms of any disinfectant we require you to use.

When using these disinfectants you must use the PPE provided: nitrile gloves and safety glasses. You also need to wear long-sleeved clothes to protect the skin from direct contact with the disinfectant

If you are susceptible to skin sensitisation problems or any other skin or respiratory allergies or recurrent respiratory disease, including asthma, please notify the Field Surveyor Manager prior to starting survey work so additional PPE can be provided or alternative biosecurity measures agreed to avoid exposure to Virkon.

4 ERAMMP BIOSECURITY PRACTICE

All landowners who have been identified for survey in ERAMMP are asked whether they have any biosecurity procedures in place on their land, or if they know of any potential biosecurity threats. The field survey team at UKCEH Bangor will make surveyors aware of any additional measures that are required prior to visiting the land in question.

ERAMMP takes a precautionary approach to biosecurity and assumes that just because a biosecurity threat has not been identified at a site it does not mean one does not exist. There could be the potential to spread disease from any site visited and ERAMMP takes extra precautions to ensure the risk is minimised.

4.1 Animal disease (livestock)

ERAMMP uses Virkon™ LSP disinfectant. Virkon™ LSP is fully UK DEFRA approved and independently proven highly effective against a wide range of viral, bacterial and fungal disease-causing pathogens, which affect poultry, swine, cattle, sheep and other livestock. Diseases which Virkon™ LSP is effective against includes avian influenza, swine influenza H1N, foot & mouth disease, PRRS, salmonella, campylobacter, tuberculosis, and swine vesicular disease.

When working on farms or other sites which may have livestock present surveyors should:

- Arrive at each site with clean footwear and vehicle, visibly free from soil and debris;
- Clean and disinfect footwear using Virkon™ LSP on entering each land holding and also before leaving, ensuring dirt and physical contamination has been removed first, as the effects of disinfectant may be neutralised or diminished by the presence of organic/inorganic material;
- Clean and disinfect footwear if you are moving between land holdings on foot;
- Avoid contact with livestock and areas of known plant disease. Contact with livestock requires full protective clothing to be worn, which must be suitably disinfected ahead of the visit and disinfected or disposed of afterwards;
- Ensure your vehicle is kept clean and, in particular, remove any accumulated mud, especially from wheels and wheel arches;
- Clean and disinfect car wheels and wheel arches using Virkon™ LSP before entering each land holding and also disinfect on the edge of the premises when leaving (e.g. at the bottom of the farm drive just before going onto the public road);
- Ensure disinfectant provided is within use-by-date and at the correct dilution;
- Keep vehicular access to a minimum: do not enter areas unnecessarily, keep to established tracks and park on hard standing;
- To adhere to arrangements for the safe disposal of disinfectant, waste Virkon™ LSP solution, unused diluted disinfectant will be returned to the local UKCEH site;
- Respect any notices or instructions, including the landowners own biosecurity requirements (for example some premises may require surveyors/visitors use protective clothing they provide, or there may be a number of days for which visitors must not have had contact with specified farmed livestock prior to visiting a particular site).

4.1.1 Procedure for using Virkon™ LSP disinfectant

Before beginning work with this substance, please review the Virkon COSHH safety sheet, manufacturer's instructions and the document "procedure for using Virkon LSP disinfectant" included in the disinfectant box.

Carefully follow the instructions outlined below:

Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should take special care when this disinfectant is being used, using a full-body overall, glasses, mask and gloves to avoid skin exposure. Ideally, your team member will handle the disinfectant.

Virkon LSP should not be inhaled, ingested or come into contact with the skin or eyes. All work using this disinfectant should be done outside in the open air using low flow and low energy application. This should prevent the disinfectant or fumes from being inhaled. Before handling any of the disinfectant application equipment, users should apply the PPE supplied:

1. Nitrile gloves (supplied) or rubber gloves;
2. Safety spectacles;
3. Long-sleeved clothing and closed shoes.

Ensure that you stand upwind of the items being treated and use the telescopic dispensing nozzle at the maximum possible length. Avoid creating a high pressure jet, or a shower, fine mist or aerosol with the sprayers, as this is far more hazardous and more easily inhaled. You should aim to produce a low flow stream of the diluted disinfectant. **Test that the sprayer is set up to do this using water before adding in the concentrated disinfectant.**

Remove the footwear that is to be treated. Remove any visible soil contamination from your footwear, vehicle tyres and wheel arches using a brush (and water if needed).

Fill the clean sprayer bottle with 3 L of clean water and test that it is set to produce a low flow stream of liquid, not a high pressure jet, or a shower, fine mist or aerosol. You have been provided with pre-measured 50 mL doses of the concentrated disinfectant in small plastic bottles. Carefully vent the pressure from the tested spray bottle and pour the contents of one of the 50 mL bottles into the 3L of water. Seal the sprayer and mix by gentle shaking. Always use this ration water to disinfectant.

Now apply the diluted disinfectant onto the cleaned footwear, tyres and wheel arches, ensuring that the solution remains in contact with the surfaces for at least 15 minutes. **DO NOT BEND OVER THE TOP OF THE ITEM YOU ARE APPLYING DISINFECTANT TOO.**

The disinfectant can be let to dry and does not need to be washed off. Make sure none of the disinfectant solution enters water courses or drains. Now remove your PPE, being careful to not get any of the disinfectant on your skin. Treat used disposable gloves as contaminated waste and seal them in a plastic bag for later disposal. If using rubber gloves, wash them with clean water to remove any disinfectant, and store them safely in a sealed bag until their next use.

The small bottles of concentrate will last for up to 3 years, or until the pink colour fades to beige. Any diluted disinfectant should last for up to two weeks. If you find that you are running low on concentrate, please email the Field Survey Manager who will arrange for more to be sent to you.

As the disinfectant is a hazardous substance, it must be transported, stored and disposed of safely. The disinfectant is considered “active” if it has a pink colour; if the colour has turned beige, the disinfectant is not active anymore:

1. All disinfectant and related materials should only be transported in a vehicle compartment that is separate from the driver and passenger cabin (i.e. the rearmost compartment of your vehicle);
2. Only take as many of the 50 mL bottles out in the vehicles as you need to. When you are returning to the same accommodation the following night, leave the box containing any excess bottles there, ideally outside in an outbuilding;
3. When being stored at a UKCEH site, the bottles must be kept in appropriate chemical cabinets or a secure ventilated outdoor storage area. The Field Survey Manager will liaise with Facilities or the Laboratory Manager at your local UKCEH site to arrange this;
4. Any unused diluted disinfectant will become inactive within two weeks and can be disposed of under a stream of cold tap water.;
5. At the end of the field season, the spray bottles and apparatus need to be thoroughly rinsed with lots of cold tap water to remove any disinfectant residue. The spray bottles should not be used for anything other than the disinfectant, and they should be labelled appropriately.

4.1.2 Procedure for personal exposure/contamination

1. Move to an area with good ventilation that is away from the disinfectant;
2. Remove any contaminated clothing;
3. Wash any disinfectant off your skin or from your eyes/mouth with copious amounts of fresh water;
4. Seek immediate medical advice or treatment, showing the safety data sheet and COSHH info for Virkon LSP to the medical personnel.

4.1.3 Disinfectant use and environmental considerations

Virkon LSP is harmful to the environment, especially to aquatic organisms, so any potentially contaminated run off must be prevented from entering water courses or other drainage systems. The cleaning and disinfection of footwear and vehicles should be carried out at least 10 m away from any drains or water courses.

However, where there is a risk of spreading pests from a site known to be infected, and a higher level of biosecurity measures is required, then particular care will be needed to ensure that water courses and drains are not contaminated by either the pest itself, the disinfectant, or other agents harmful to the environment such as traffic grime, brake dust, oil, etc. - collectively referred to in the government’s Environmental Regulations as ‘waste effluent’. Special provisions may be required to comply with the Environmental Permitting (England and Wales) Regulations and advice may be needed from the relevant national environmental agencies. The Field Survey Manager/Project Manager will provide you with further advice if higher level biosecurity measures are required.

4.1.4 Procedure for accidental spill or release into the environment

1. Ensure your personal safety as a priority. Wear gloves, eye protection and waterproof footwear. Do not expose yourself to the fumes from the liquid;
2. If possible, prevent the disinfectant from entering water courses or drains, using blue roll or any fabric material you have to soak up or dam the liquid;
3. Put any contaminated blue roll / spill mats into a sealed plastic bag; disinfectant exposed to air will become inactive within two weeks and can be disposed of in its sealed bag;
4. Contact the Field Survey Manager and the UKCEH SHE Team for advice Email: sheteam@ceh.ac.uk or call the SHE Advisor on 01491 692721.

4.2 Tree health (forestry and woodland)

Trees and plants in Britain are now vulnerable to a range of new pests and diseases as a result of the increased movement of goods around the world and climate change. ERAMMP takes biosecurity in woodland and forests seriously to avoid the risk of harm both from invasive or non-native species, and from pests and diseases.

Invasive non-native species include rhododendron, American skunk cabbage, Japanese knotweed and Himalayan balsam. Pests could be certain insects, and diseases include bacteria, fungi and viruses. Outbreaks can result in economic losses for the forestry industry and for related industries, such as tourism.

High risk sites, such as those with known pests and diseases will have been highlighted during the landowner permissions process. **ERAMMP surveyors should not visit these sites.**

4.2.1 When working on Forest and Woodland sites

In Wales surveyors should follow NRW biosecurity guidelines for low-risk activities.

<https://naturalresources.wales/guidance-and-advice/business-sectors/forestry/tree-health-and-biosecurity/how-to-practise-biosecurity-in-woodlands-keep-it-clean/?lang=en>

Procedures involve:

- Wear footwear and outerwear that can easily be kept clean;
- Clean footwear and outerwear when entering each site. Ensure they are visually free from soil and organic debris;
- Clean vehicles before and after each site visit. Do not let mud and organic debris accumulate on tyres, wheels or under wheel arches;
- Restrict the equipment taken onto a site – take only what you need for the task;
- Ensure all tools and equipment are clean, serviceable and free from organic debris.

4.3 Invasive Non-Native Species (INNS)

ERAMMP surveyors should be aware of INNS and the risk that they pose. **A good biosecurity routine is always essential, even if invasive non-native species are not always apparent.**

The GB non-native species secretariat provide free online training in biosecurity (<https://elearning.nonnativespecies.org/>).

Before undertaking fieldwork all ERAMMP surveyors should undertake Module 1, *Introduction to Invasive Non-native Species*, and Module 3a on *Biosecurity*.

Take the test and download a certificate once passed. Once completed, the certificates should be emailed to erammp@ceh.ac.uk.

Time will be allocated during the ERAMMP field survey training course to complete these modules. If you are a returning field surveyor and have undertaken the two modules above, you can either re-do the modules, or sign the below:

4.3.1 Declaration for returning ERAMMP field surveyors:

Full Name: _____

I confirm I will adhere to the above outlined biosecurity procedures, and will act in a pre-cautious and preventative way. I will follow the guidelines as outlined in this document and the two INNS modules.

Date: _____

Signature: _____

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