



BIRD FLU

KNOW WHAT
TO DO

Workers discussing safety before starting predator control. Photo: DOC

H5 bird flu wildlife kete: pest species trapping

Purpose: provide health, safety and biosecurity best practice to safely continue pest species trapping with H5 bird flu (highly pathogenic avian influenza H5N1 clade 2.3.4.4b) present in Aotearoa.

Who is this factsheet for?

This guidance was developed as best practice for DOC staff. It applies to DOC workers and, where DOC is directing or influencing the work, to others involved in DOC-led or DOC-supported activities including Treaty Partners, contractors, researchers, volunteers, permit holders, concessionaires and other PCBUs.

This document can be used as best practice recommendations for other community operators to keep themselves safe when carrying out pest species trapping.

How to use this guide:

Follow steps 1- 5 in this guide and any other relevant best practice guidance for your work.

Step 1 Know your exposure risk and which tasks need mitigation

Step 2 Know and have the necessary Personal Protective Equipment (PPE)

Step 3 How to assess and when to reassess trapping feasibility

Step 4 Know which H5 bird flu disinfectants to

Step 5 Know how to use the H5 bird flu disinfectants

Before you start:

- ☐ Read over all the steps
- ☐ Re-read Step 2, and know when to call a stop for human and animal safety and welfare
- ☐ Know how to apply and correctly use the appropriate PPE for your task(s)
- ☐ Know how to appropriately clean equipment and clothing
- ☐ Always keep yourself, the wildlife and others safe
- ☐ If a stop is called, reassess using STEP 2 and resume the activity when it is safe
- ☐ Read all the FAQ's at this end of this document
- ☐ If needed, contact the DOC HPAI team for further clarification



Department of
Conservation
Te Papa Atawhai

**Te Kāwanatanga
o Aotearoa**
New Zealand Government

What are symptoms of H5 bird flu in animals?

The most obvious sign of H5 bird flu is the sudden death or sickness in several birds.

Other symptoms in wild birds can include:

- weakness and trembling
- paralysis
- breathing difficulties
- lack of coordination
- blindness
- diarrhoea
- droopy head
- lack of energy/ reluctance to move

Report sick or dead wildlife

If a new H5 bird flu outbreak is detected or suspected during trapping, stop work, and report.

If you see three or more sick or dead wild birds or seals in a group, avoid contact, record what you see and report it to the Exotic Pests and Diseases hotline on **0800 80 99 66** or online at **report.mpi.govt.nz**

Follow the investigators instructions. Do not handle or move the wildlife unless directed to do so by MPI or DOC and you have adequate PPE and handling skills.

Keep children and pets away from sick and dead wildlife.

Benefits and risks of trapping

There are benefits to carrying on with trapping if the risks can be managed and you can keep yourself safe. Some trapping may be very low risk, because it takes place outside outbreak or bird colony areas.

Benefits of continuing trapping:

- Increases the resilience of native species by reducing predation, especially if the population is declining because of H5 bird flu.
- Enables wildlife to be monitored, including in areas where H5 bird flu is present.

Risks of continuing trapping:

- Poor hygiene practice could spread H5 bird flu if dirty footwear and gear isn't disinfected between sites.
- Disturbing infected wildlife risks stressing animals and hampering their ability to survive the virus. It could also cause infected animals to disperse and spread H5 bird flu to new places.
- Increased risk to human health and safety by more exposure to the virus directly or by contact with dead trapped animals such as rats and stoats.

STEP 1: Know your exposure risk and which tasks need mitigation

Know your exposure risk, and the corresponding colour coded PPE level required to safely undertake species translocations. When planning your activity determine the exposure risk for all sites and tasks you will be undertaking. Repeat this assessment at the start of the task (e.g. during toolbox talks and Job Safety Assessments - JSA) to ensure any changes to exposure risk are captured and mitigated.

Call a stop for safety at any point if the risk exceeds the PPE and biosecurity mitigations you have in place.

Exposure Risk				
Indicates how likely it is for a human to encounter the virus based on the disease status in Aotearoa and trigger zones [§] .				
Extremely low	Low	Moderate	High	Extremely high
No H5 bird flu anywhere in Aotearoa AND No sustained transmission [†] of H5 bird flu in wildlife in any of the trigger zones [§]	Sustained transmission [†] of H5 bird flu is confirmed in wildlife in one or more trigger zones [§] AND/OR Sporadic detections [†] of H5 bird flu confirmed anywhere in Aotearoa	Sustained transmission [†] of H5 bird flu is confirmed or highly suspected in wildlife in Aotearoa AND No individuals at work site are show symptoms	Sustained transmission [†] of H5 bird flu is confirmed or highly suspected in your region AND Mortality above baseline [‡] OR Only some individuals (1-10) at work site show symptoms	H5 bird flu is circulating at the site you are visiting (confirmed or highly suspected). Mass mortality in birds and/or mammals at your site
Definitions [§] Trigger zones: Australia, South Pacific, NZ subantarctic islands, Ross Sea region Antarctica. [†] Sporadic detections: [‡] Sustained transmission: an infectious illness that is actively spreading and being transmitted between individuals within a specific population or geographic region. [‡] Mortality above baseline: useful if population data is known and monitored for species' impacted by sustained H5 bird flu transmission.				

	Exposure risk				
	extr. low	low	mod	high	extr. high
Tasks at increased H5 bird flu exposure descriptions	PPE Levels				
Specific tasks that put people at higher risk from H5 bird flu exposure Deliberate or accidental handling of equipment contaminated by faeces or bodily fluids from apparently healthy animals . Excluding directly collecting biological samples (or subproducts) from animals (e.g. swabs, bloods, etc). Examples: trapping, routine health checks, banding, transponder insertion, flipper tag application, translocations, radio transmitter changes, supplementary feeding, provision and management of nest/ roost boxes, management of release aviaries.	1	1	2	3	3
Deliberate or accidental handling or collection of biological samples (or subproducts, including feathers from apparently healthy animals . Excluding handling or collection tasked as part of an H5 bird flu investigation. Examples: blood samples, feather collection, trapping, collection of animal subproducts (swabs, faeces, regurgitation, stomach flushing etc.)	1	1	2	3	4

STEP 2: Know and have the necessary Personal Protective Equipment (PPE)

Using your known Exposure Risk and identified PPE level for each relevant task in STEP 1, use the list below to understand full PPE materials and requirements for each level.

Recommendation: before using PPE in the field, watch the training videos and follow the guidance to practice wearing (donning) and removing (doffing) PPE correctly. All videos and guidance are available on the DOC H5 bird flu wildlife kete.

Equipment	0	1	2	3	4	Packed?
Hand sanitiser in pump bottle	✓	✓	✓	✓	✓	
Alcohol wipes	✓	✓	✓	✓	✓	
Disposable gloves (PPE underlayer)	optional	optional	optional	✓	✓	
Tough waterproof gloves e.g. dishwashing (PPE overlayer)					✓	
Washable material overalls (PPE underlayer)		✓	✓			
Tyvek 500 Xpert Coverall , or other liquid & particle proof coveralls (PPE underlayer)				✓	✓	
Durable waterproof PPE overlayer, PVC clothing, raincoat, apron and waterproof pants.				<i>alternative to Tyvek</i>	✓	
Work boots or PVC gumboots		✓	✓	✓	✓	
Fish bin for storing and transporting gear		✓	✓	✓	✓	
Facemask or respirator with filters (N95, KN95 or P2)			✓	✓	✓	
Protective goggles, glasses or face shield			if windy	✓	✓	
Hair tie, bandanna or buff, if appropriate			✓	✓	✓	
Disinfectant at correct dilution concentration <i>Make sure you have enough for all your gear</i>		✓	✓	✓	✓	
Tub for disinfecting boots e.g., fish bin		✓	✓	✓	✓	
Plastic container with lid for disinfecting other gear		✓	✓	✓	✓	
Roll of duct tape		✓	✓	✓	✓	
Permanent marker pen for labelling		✓	✓	✓	✓	
Scrubbing brush		✓	✓	✓	✓	
2 spray bottles of disinfectant		✓	✓	✓	✓	
Rubbish bin/ bucket			✓	✓	✓	
Plastic rubbish bags		✓	✓	✓	✓	
Rubbish bag ties e.g. cable ties			✓	✓	✓	
Ziplock bag for phone			optional	✓	✓	
Tarpaulin				✓	✓	
Crocs (cleanable temporary shoes)				✓	✓	
Clean clothes and shoes to change into		✓	✓	✓	✓	
Printout of the PPE for levels 0-4 document to take with you			optional	✓	✓	
A buddy				✓	✓	
Facewipe in a plastic bag					✓	

Note: PPE underlayers are used as the only layer for lower levels (as indicated) and some levels require two layers of PPE.

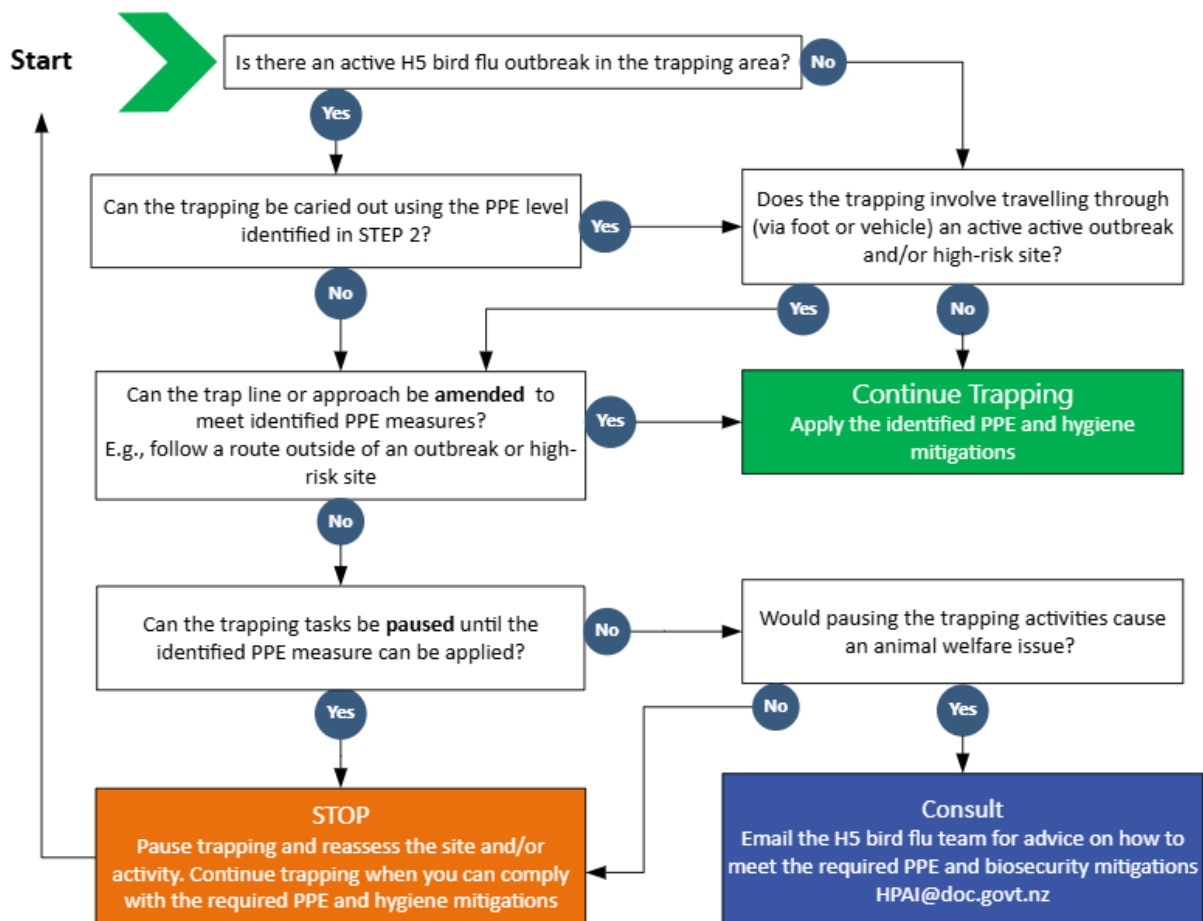
STEP 3: How assess and when to reassess trapping activity feasibility

Follow the decision tree to identify the feasibility of continuing the trapping activity within the context of your known Exposure Risk Level from STEP 1. Repeat this assessment at the start of the task (e.g. during toolbox talks and Job Safety Assessments - JSA) to ensure any changes to exposure risk are captured and mitigated.

Distance observation before starting work

Before starting work, identify any high-risk sites within the trapping area. High-risk sites are where you are more likely to contact H5 bird flu sick or dead wildlife; such as, known outbreak sites or places where wildlife congregate or disperse in large numbers for breeding, feeding, resting, nesting or moulting.

Irrespective of the interaction with wildlife in the trapping area, assess the wildlife in any relevant high-risk sites from a distance (≥ 50 m if possible) prior to entering the site. Observe wildlife within the high-risk site for 10-15 minutes looking for an unusual event involving three or more sick/ dead animals (birds or marine mammals) or any suspicious H5 bird flu symptoms in live animals.



STOP For any activity that cannot continue safely, ensure all impacted groups (including DOC staff) understand the basis for pausing the activity. For any activity to restart it must be able to comply with necessary PPE requirements.

CONSULT If your activity is essential due to animal welfare or species extinction reasons, contact the DOC H5 bird flu team for advice HPAI@doc.govt.nz. Trapping cannot continue until appropriate PPE and biosecurity hygiene protocols can be applied.

CONTINUE trapping Follow the applicable PPE requirements captured in STEP 1

STEP 4: Know which H5 bird flu disinfectant to use

Use this table to understand the different disinfectant options is suitable for cleaning yourself or equipment. Note that while disinfectants will work for the uses described below, some may damage the item being disinfected, e.g., cause fabric colours to run or damage boot soles.

	Hands and body	Clothing	Other soft surfaces (e.g. vehicle seats)	Phone or camera	Vehicles (e.g. boot/ hard seat, trailers etc.)
Hand sanitiser and hot soapy water	✓	-	-	-	-
Ethanol	✓	-	-	✓	-
Isopropyl alcohol	✓	-	-	✓	✓ Use 70% on hard internal surfaces
Safe4	-	✓	✓	✓	✓
SteriGene	-	✓	✓	✓	✓ Also suitable for external surfaces
Virkon S	-	✓	-	✓	✓
Bleach: 5–6% sodium hypochlorite	-	✓	-	✓	✓
Prevail	-	✓	✓	✓	✓
F10 SC	-	✓	✓	✓	✓
Washing machine hot wash: 40°C, heavy duty cycle with detergent	-	✓	-	-	-

Key:



recommended for this type of disinfection



NOT recommended for this type of disinfection

STEP 5: Know how to use the H5 bird flu disinfectants

Use the table below to correctly prepare the disinfectant you require. Contact Time means the length of time the disinfectant needs to be in contact with the item to be effective.

Disinfectant	Concentration	Directions & details	Contact Time
Hand sanitiser & hot soapy water	60-90% (hand sanitiser)	Hands, arms, and face should be washed with water and detergent, rinsed, and hand sanitiser or Alcohol wipes applied to hands, after fieldwork).	15 seconds (hand sanitiser)
Ethanol	60-90%	No rinsing required	15 seconds
Isopropyl alcohol	60-90%	No rinsing required	15 seconds
Safe4 (Halogenated tertiary amine)	10%	1 part concentrate to 10 parts warm or cold water	5 minutes
	1:10	No rinsing required. Fully dry item before reusing or animal contact. Irritant to skin. Lasts 7 days once diluted, make fresh weekly.	
SteriGene (Halogenated tertiary amine)	0.5% 1:200 dilution	1 part concentrate to 200 parts water. (25mls into 5 litres) For general cleaning of un-soiled areas Rinsing and drying required. Can cause allergic skin reaction and irritation when inhaled. Non-corrosive. Lasts 6 months made up with tap water, 12 months made up with deionized water.	General use 5 minutes
	1% 1:100 dilution	1 part concentrate to 100 parts water (50mls into 5 litres) if the item has been previously soiled and cleaned Can cause allergic skin reaction and irritation when inhaled. Non-corrosive. Lasts 6 months made up with tap water, 12 months made up with deionized water.	Equipment soak 20 minutes
	5% 1:20 dilution	1 part concentrate to 20 parts water (250mls in 5 litres) in the presence of blood or bodily secretions Can cause allergic skin reaction and irritation when inhaled. Non-corrosive. Lasts 6 months made up with tap water, 12 months made up with deionized water	Fabrics soaked 30 minutes or use 50ml SteriGene per 4kg load of washing
Virkon S (Oxidising agent)	1%	1 tablet per 500 mL of water OR 10 g of powder per litre of water for a 1% solution. Warm or cold water	10 minutes
		Rinsing required. Very corrosive and irritant to skin. Lasts 7 days once diluted, make fresh weekly.	For clothing use a 3.5% solution
Bleach (with 5-6% sodium hypochlorite)	10%	1 part bleach + 9 parts water. Cold water only For clothing: 35mls bleach made up to 1 litre with cold water. Rinsing required. Irritant to skin. Check product concentration to ensure correct dilution rate. Lasts 24 hours once diluted	10 minutes
Prevail (Hydrogen peroxide)	2.5%	25mls Prevail in 1 litre cold water	5 minutes
	1:40	No rinsing required. Do not use undiluted. Biodegradable. Once diluted, lasts 30 days.	
F10 SC (Quaternary ammonium)	1%	10mls in 1 litre water	10 minutes contact time
		No rinsing required. Less irritant to skin than other disinfectants.	

Frequently Asked Questions:

Can I use eggs as a lure?

If you use eggs as a lure, we recommend using commercially sourced eggs. Commercial poultry farms have H5 bird flu controls in place preventing infected poultry or poultry products from being sold. Egg shortages may become an issue if there are H5 bird flu outbreaks in poultry, we recommend making a plan for using alternative lures now.

How do I know if it's safe to keep doing my trapping work?

Refer to STEP 3 and assess your site. Pest species trapping is an important task; we aim to provide you with the necessary tools to adapt your trapping so it can continue with H5 Bird flu present in Aotearoa.

I'm a volunteer community trapper; do I have to follow these instructions?

This factsheet is the recommended best practice for keeping operators safe and adapting your trapping so it can continue with H5 bird flu present in Aotearoa. It is a requirement for all DOC workers and, where DOC is directing or influencing the work, to others involved in DOC-led or DOC-supported activities including Treaty Partners, contractors, researchers, volunteers, permit holders, concessionaires and other PCBUs to follow these guidelines. As a volunteer community trapper, we encourage you to follow best practice and keep yourself and others safe. Check with your predator-free or trapping organisation if you're unsure.

I don't have access to the PPE required. What should I do?

All DOC staff will be issued PPE needed to do their task. Other individuals will need to provide their own gear as working in the presence of H5 bird flu is a permanent shift in how we do conservation work. If using PPE make sure you fully know how to correctly apply and remove PPE before doing your task.

I think I've been contaminated, what do I do?

If you have accidentally or deliberately been exposed to body fluids from an animal (e.g. faeces, regurgitation, saliva etc.) on your person or your PPE failed (e.g. ripped or torn), follow the guidance provided the H5 bird flu decontamination document available on the DOC website H5 bird flu wildlife kete. If you experience flu-like symptoms or other concerns, contact your health provider and tell them you may have been exposed to H5 bird flu.

My boots are dirty; will the disinfectant still work?

No. For disinfectants to work effectively equipment all faecal material, mud, debris, etc. must be removed, before spraying with or dipping into disinfectant for the required contact time.

I need to dispose of the dead animals from the trap, what do I do?

If you are servicing an urban trap and need to take the dead animals away from the site, use appropriate PPE and follow local Council disposal guidance. If you are able to, because you are working on a more remote trapping line, we recommend leaving the catches in discrete nearby areas; use appropriate PPE while handling dead animals to keep yourself safe.

How to dispose of PPE and other waste appropriately?

If H5 bird flu is not suspected, dispose of waste following standard protocols. If H5 bird flu is suspected, follow the local Council disposal guidance and recommendations.

I have a trapping situation not covered by this document

You might not be the only person or group with this question. If you have a task or situation not covered by this document and you are unsure and require guidance, please contact the DOC H5 bird flu team HPAI@doc.govt.nz