

H5 bird flu: PPE for levels 0–4

Your safety comes first

Using appropriate PPE (personal protective equipment) and keeping up good hygiene, like washing hands and field gear, are the main ways we can protect ourselves, our families and our pets against bird flu. HPAI (highly pathogenic avian influenza) is a very serious disease, so it's really important for you to follow these instructions carefully every time you use the PPE.

This factsheet details the level of PPE you'll need for dealing with different situations:

- 0: standard hygiene for field work
- 1: stops you spreading germs between sites when working with or around animals
- 2 keeping you safe during moderate exposure work around animals
- 3: keeping you safe doing work with or around sick or dead animals at sites where HPAI may be present
- 4: keeping you safe doing work with or around sick or dead animals at *known* HPAI sites.

If you feel unprepared, uncomfortable or unsafe at any time, talk to your manager about health and safety and whether the work is essential, or if it's better to be done by someone else.

How to prepare

Before you start

- Watch the videos where Kate McInnes, the DOC vet, takes us through all the different levels of PPE. (Internal to DOC [HPAI PPE training and reference videos](#) or external [on YouTube](#)).

The terms 'donning' and 'doffing' mean putting on and taking off PPE.

- Look at the equipment table for each level and see what you might need to get or clean up in preparation.
- Read over the steps for each level.
- Try on all your PPE to find a size and brand that fits you properly. You may need to allow for extra layers underneath in cold weather.
- Have a practice at putting on and taking off the PPE, say at level 3. Work with a buddy.

Masks

You have to get a mask professionally fitted to your face. Blackwoods NZ Safety or an occupational health and safety practitioner can do this. You may find that masks with straps around your head are more comfortable than those with straps around your ears.

Goggles and glasses

Choose a set of goggles or glasses that are comfortable and seal around your face. This is to protect you from material blowing in from the sides. If you wear prescription glasses, goggles that are shaped like a ski mask and fit over them might be more comfortable.

Test your goggles won't fog up and will fit over your glasses BEFORE you head out into the field. Ask for professional help if you can't get it right yourself.

PPE equipment checklist – what you’ll need for each level

Equipment	Level 0	Level 1	Level 2	Level 3	Level 4	Got it?
Hand sanitiser in pump bottle	✓	✓	✓	✓	✓	
Alcohol wipes	✓	✓	✓	✓	✓	
Disposable nitrile gloves	optional	optional	optional	✓	✓	
Washable overalls		✓	✓			
Work boots or PVC gumboots		✓	✓			
Fish bin for storing and transporting gear		✓	✓	✓	✓	
PVC gumboots			✓	✓	✓	
Facemask or respirator with filters (N95, KN95 or P2)			✓	✓	✓	
Protective goggles, glasses or face shield			if windy	✓	✓	
Disposable coveralls e.g. Tyvek suit				✓	✓	
Hair tie, bandanna or buff, if appropriate			✓	✓	✓	
Disinfectant at correct dilution		✓	✓	✓	✓	
Tub for disinfecting boots eg, 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			✓	✓	✓	
Plastic rubbish bags		✓	✓	✓	✓	
Rubbish bag ties eg, cable ties			✓	✓	✓	
Ziplock bag for phone			optional	✓	✓	
Raincoat and waterproof pants			if wet	if wet	✓	
Tarpaulin				✓	✓	
Tough rubber gloves e.g. washing up					✓	
Crocs				✓	✓	
Clean clothes and shoes to change into				✓	✓	
Printout of this factsheet to take with you			optional	✓	✓	
A buddy				✓	✓	

PPE level 0 instructions

What it's for: standard hygiene for fieldwork

Approximate time required: 30 mins

Step 1: 5 minutes

Step 2: 2 minutes

Step 3: 10 minutes

Step 4: 10 minutes

Taking a break:

Wash your hands and all exposed skin with soap and water, or use sanitiser and alcohol wipes before you eat, drink or touch your phone.



Step 1: at base

Assemble and check all the gear you'll need

1. Get the PPE what you need according to the checklist
2. Clean and disinfect your footwear and equipment depending on where you're going.
3. Wash your hands with soap and water or use hand sanitiser.

Step 2: on site before you start work

Check you have everything you need

1. Clean or disinfect your hands and equipment between animals, or use a fresh pair of disposable nitrile gloves.

Step 3: on site when you've finished work

Clean everything and take off any PPE

1. Sanitise your hands
2. Remove debris by brushing off all mud, sand, faeces, feathers etc. from your boots and tools.
3. Wipe your phone with an alcohol wipe.
4. Bag all rubbish.
5. Sanitise your hands.

Step 4: back at base and at home

Clean, tidy and store everything

1. Put all the rubbish in a general waste bin
2. Rinse, dry and store the gear so it's ready for next time.
3. Wash your uniform.
4. Sanitise or wash your hands and face with soap and water.

PPE level 1 instructions

What it's for: stops you picking up or spreading germs when working around animals

Approximate time required: 40 minutes

step 1: 10 minutes

Step 2: 5 minutes

Step 3: 10 minutes

Step 4: 15 minutes

Taking a break:

Wash or sanitise your hands. Don't touch boots or other field gear.



Step 1: at base

Assemble and check all the gear you'll need

1. Find all the PPE that's needed for level 1
2. Choose overalls, boots and rain gear that can be washed and disinfected
3. Check everything is clean or disinfected, especially boot treads and tool grips and joints
4. Put everything into a fish bin or similar
5. Make up the disinfection solution now or on location, and put into containers. Label with the name of the product, dilution and date.
6. Pack spare clothes and shoes in your vehicle to change into when you get back
7. Wash your hands with soap and water or use hand sanitiser

Step 2: on site before you start work

Check everything again, prepare your setup and put on the PPE

1. Re-check you have everything on the equipment list
2. Set up the cleaning equipment for when you finish work
3. Put on the overalls, so the legs cover your work boots
4. Sanitise your hands

Step 3: on site when you've finished work

Clean everything and take off your PPE

1. Sanitise your hands
2. Wipe non-soak items like camera, GPS and phone with an alcohol wipe
3. Remove debris by brushing off all mud, sand, faeces, feathers etc. from your boots and tools
4. Soak tools in a container with disinfectant
5. Step into the disinfectant tub and scrub your boots
6. Take off your boots and check the soles are clean
7. Spray the top of the boots with disinfectant
8. Remove your overalls. Slip them off your shoulders and slide them down so they end up inside out, only touching the inside of the fabric.
Put them in a plastic bag.
9. Bag all rubbish
10. Sanitise your hands

Step 4: back at base and at home

Clean, tidy and store everything

1. Put all the rubbish in a general waste bin
2. Rinse, dry and store the disinfected gear so it's ready for next time
3. Wash your overalls – put them straight in the washing machine with disinfectant. Discard the bag they were in.
4. Wash any catch bags
5. Sanitise or wash your hands with soap and water

PPE level 2 instructions

What it's for: keeping you safe during moderate exposure work around animals

Approximate time required: 45 minutes

Step 1: 15 minutes

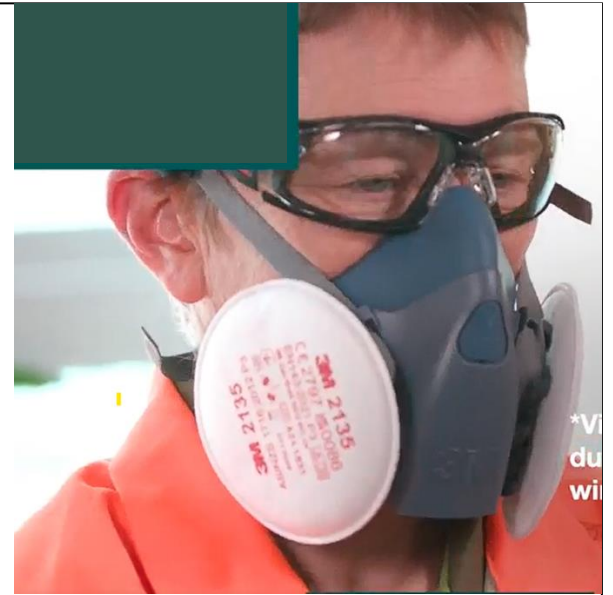
Step 2: 5 minutes

Step 3: 15 minutes

Step 4: 10 minutes

Taking a break:

Wash or sanitise your hands. Carefully take off overalls, mask and glasses. Don't touch boots. Sanitise your hands.



Step 1: at base

Assemble and check all the gear you'll need

1. Find all the PPE that's needed for level 2
2. Your facemask or respirator needs to have been fitted by a professional
3. Use protective goggles, glasses or a face shield if it's windy
4. Choose overalls, boots and rain gear that can be washed and disinfected
5. Check everything is clean or disinfected, especially boot treads and tool grips and joints
6. Make up the disinfection solution and put into containers and spray bottles. Label with the name of the product, dilution and date.
7. Put everything into a fish bin or similar
8. Pack spare clothes and shoes in your vehicle to change into when you get back
9. Wash your hands with soap and water or use hand sanitiser

Step 2: on site before you start work

Check everything again, prepare your setup and put the PPE on

1. Re-check you have everything on the equipment list
2. and put into containers and spray bottles. Label with the name of the product, dilution and date.
3. Set up as much equipment as you can for cleaning up when you finish work.
4. Tie back or contain your hair with a hat.
5. Put on boots, overalls and mask. Overall legs must come over your boots. Add goggles, glasses or face shield if its windy.

Step 3: on site when you've finished work

Clean everything and take off your PPE

1. Sanitise your hands
2. Remove debris by brushing off all mud, sand, faeces, feathers etc. from your boots and tools
3. Bag all rubbish and disposable items

4. Soak tools in a container with disinfectant
5. Wipe non-soak items like GPS, camera and phone with an alcohol wipe
6. Step into the disinfectant tub and scrub your boots
7. Stay standing in the disinfectant tub and remove your overalls. Slip them off your shoulders and slide them down so they end up inside out. Only touch the inside fabric.
8. Step out of your boots and overalls and put the overalls in a separate plastic bag or container. Leave the boots in the bin.
9. Check the soles of your boots are clean
10. Use a spray bottle with diluted disinfectant to clean the top of your boots
11. Sanitise your hands
12. Grab the elastic goggle straps at the back of your head and pull them off
13. Hold the sidearms of glasses to remove them
14. Put goggles or glasses into disinfectant container
15. Grab the elastic mask straps at the back of your head and carefully lift off
16. Bin disposable masks, put respirators into the disinfectant container or spray with disinfectant
17. Close up the rubbish bag
18. Sanitise your hands

Step 4: back at base and at home

Clean, tidy and store everything

1. Put all rubbish in a general waste bin
2. Rinse, dry and store gear so it's ready for next time.
3. Wash your overalls – put them straight in the washing machine with disinfectant. Discard the bag they were in or spray the container with disinfectant.
4. Sanitise or wash your hands with soap and water.

PPE level 3 instructions

What it's for: keeping you safe doing work with or around sick or dead animals at sites where HPAI may be present

Approximate time required: 60 minutes

Step 1: 15 minutes Step 5: 10 minutes

Step 2: 5 minutes Step 6: 5 minutes

Step 3: 5 minutes Step 7: 15 minutes

Step 4: 5 minutes

Taking a break: No breaks. Plan to work in short bursts.



Step 1: at base

Assemble and check all the gear you'll need

1. Find all the PPE that's needed for level 3.
2. Your facemask or respirator needs to have been fitted by a professional.
3. Protective goggles, glasses or a face shield
4. Nitrile gloves
5. PVC gumboots
6. Tyvek coveralls or PVC rain gear
7. Check everything is clean or disinfected, especially boot treads and tool grips and joints
8. Put everything into a tub or fish bin
9. Pack spare clothes to change into when you get back
10. Make up the disinfection solution and put into containers and spray bottles. Label with the name of the product, dilution and date.
11. Wash your hands with soap and water or use hand sanitiser now

Step 2: on site before you start work

Check everything again and prepare your setup

1. Re-check you have everything on the equipment list.
2. Spread out the tarpaulin on a flat area a few metres from the vehicle.
3. Mark out clean and dirty sides of the tarpaulin, with the clean side closest to the vehicle.
4. On the clean side put:
 - tub with all your clean PPE on it
 - tools and rubbish bags
 - boots and coverall or rain gear
 - spray bottle of diluted disinfectant
5. On the dirty side put:
 - hand sanitiser
 - boot cleaning tub with diluted disinfectant and scrubbing brush in it
 - rubbish bin layered with 3 bags inside
 - ties for rubbish bags
 - spray bottle of diluted disinfectant
 - container of diluted disinfectant for goggles and respirator
 - face wipe in a plastic bag
 - crocs.

Step 3: Get yourself ready

Get comfortable before you start

1. Sanitise your hands
2. Apply sunscreen if needed.
3. Tie back or contain long hair
4. Go to the toilet
5. Put your phone in a waterproof Ziploc bag so you can use it in the field
6. Take off any warm clothing if you might overheat

Step 4: Put on the PPE

Do this in order, standing on the clean side of the tarpaulin

1. Step out of your shoes
2. Put on Tyvek coveralls or rain jacket and pants – make a tape flap on the zipper
3. Put on gumboots, with coverall legs over the top of the boots
4. Put on mask or respirator
5. Put on safety glasses or goggles
6. Put on nitrile gloves and pull up the top of the glove over the coverall cuff.
7. Pull up the coverall hood up so it covers all your hair

You're good to go!

Step 5: on site when you've finished work

Remove all the PPE in this order. Assume everything is contaminated on the outside.

1. Stand on the dirty side
2. Sanitise your nitrile-gloved hands
3. Put any dead birds or rubbish into the bin
4. **Disinfect field equipment:**
 - brush off any mud, sand, faeces, feathers
 - scrub with disinfectant in the boot-cleaning tub
 - leave to soak in the boot cleaning tub
 - put your phone in its bag into the disinfectant container
5. **Disinfect boots:**
 - Brush off the worst of the mud, sand, faeces, feathers etc. from your boots
 - Step into the disinfectant tub and scrub your boots.
6. **Remove coveralls:**
 - sanitise your nitrile-gloved hands.
 - pull the hood down
 - unzip the coveralls
7. **Take nitrile gloves off**
 - sanitise your nitrile-gloved hands.
 - with your right hand, pinch the outside top of left glove
 - pull down and peel off, turning glove inside out
 - with your left hand, carefully slide your finger under the top of the right glove
 - pull down and peel right glove off, turning it inside out
 - bin both gloves
 - sanitise your hands
8. **Remove your coveralls, rain pants and boots:**
 - fully unzip the coveralls and reach inside the front to slip off your shoulders. only touch the inside.
 - peel down, turning them inside out
 - step out of your boots into crocs
 - lift coveralls off the boots, only touching the inside
 - place in rubbish
 - leave boots in the disinfectant tub
 - sanitise your hands
9. **Remove goggles and mask:**
 - grab the elastic goggle straps at the back of your head and pull off
 - hold the sidearms of glasses and remove them
 - put goggles or glasses into disinfectant container
 - grasp the elastic mask straps at the back of your head and carefully lift off
 - bin disposable masks, put respirators into the disinfectant container

Step 6: final clean-up on site

1. Package and disinfect the rubbish:

- handle the rubbish bag from its clean outside surface
- pull the top together and tie it
- spray the outside with disinfectant
- repeat with the other two bags to create a triple layer

2. Spray everything on the dirty side with disinfectant

3. Take out your phone and close up the disinfectant container, leaving your goggles and respirator inside

4. Step over into your shoes on the clean side

5. Sanitise your hands

6. Pick up the clean-side spray bottle and spray the dirty-side spray bottle

7. Pack everything into a fish bin and pack into your vehicle

8. Sanitise your hands

Step 7: back at base and at home

Clean, tidy and store everything

1. Put the rubbish bag into general waste

2. Finish disinfecting everything, then rinse, dry and store so it's ready for next time.

3. Wash your hands with soap and water.

PPE level 4 instructions

What it's for: keeping you safe doing work with or around sick or dead animals at known HPAI sites

Approximate time required: 1.5 hours

Step 1: 30 minutes

Step 5: 15 minutes

Step 2: 5 minutes

Step 6: 10 minutes

Step 3: 5 minutes

Step 7: 30 minutes

Step 4: 10 minutes

Taking a break: No breaks. Plan to work in short bursts.



Step 1: at base

Assemble and check all the gear you'll need

1. Find all the PPE that's needed for level 4.
2. Your facemask or respirator needs to have been fitted by a professional.
3. Use protective goggles or glasses.
4. Two layers of gloves are required – nitrile + tough rubber gloves.
5. Duct tape to seal around cuffs and ankles.
6. PVC gumboots.
7. Tyvek coverall and PVC rain gear or apron are essential – check they fit comfortably.
8. Check everything is clean or disinfected, especially boot treads and tool grips and joints.
9. Put everything into a tub or fish bin.
10. Pack spare clothes to change into when you get back.
11. Wash your hands with soap and water or use hand sanitiser now.

Step 2: on site before you start work

Check everything again and prepare your setup

1. Re-check you have everything on the equipment list.
2. Make up the disinfection solution and put into containers and spray bottles. Label with the name of the product, dilution and date.
3. Spread out the tarpaulin on a flat area a few metres from the vehicle.
4. Mark out clean and dirty sides of the tarpaulin, with the clean side closest to the vehicle.

5. On the clean side put:

- tub with all your clean PPE on it
- tools and rubbish bags
- boots and rain gear
- spray bottle of diluted disinfectant
- 6 pieces of cut duct tape

6. On the dirty side put:

- dry scrubbing brush
- hand sanitiser
- boot cleaning tub with diluted disinfectant and scrubbing brush in it
- container of diluted disinfectant for goggles and respirator (if using)
- rubbish bin layered with 3 bags inside
- ties for rubbish bags
- spray bottle of diluted disinfectant
- face wipe in a plastic bag
- crocs.

Step 3: Get yourself ready

Get comfortable before you start

1. Sanitise your hands
2. Apply sunscreen if needed.
3. Tie back or contain long hair
4. Go to the toilet
5. Put your phone in a waterproof ziploc bag so you can use it in the field
6. Take off any warm clothing if you might overheat

Step 4: Put on the PPE

Do this in order, standing on the clean side of the tarpaulin

1. Step out of your shoes
2. Put on Tyvek coveralls – make a tape flap on the zipper
3. Put on rain pants
4. Put on gumboots, with coverall legs over the top of the boots
5. Tape the bottom of the coverall legs to the outside of the gumboots
6. Pull the rain pants down over the top of the boots
7. Put on the nitrile gloves and pull up the top of the glove over the coverall cuff. Tape in place.
8. Put on mask or respirator
9. Put on safety glasses or goggles
10. Pull up the coverall hood up so it covers all your hair
11. Put on rain jacket and zip it up
12. Add rubber gloves, with rain jacket cuffs inside. Tape in place. (If you're wearing an apron, tape the rubber gloves to the coverall cuffs.)
13. Check your gear fits by bending over and doing some stretches
14. Ask your buddy to check you have everything on, and there are no gaps or rips. Check their PPE too.

You're good to go!

Step 5: on site when you've finished work

Pause for a moment. Take your time to remove all the PPE in this order. Assume everything is contaminated on the outside.

1. Stand on the dirty side
2. Sanitise your rubber-gloved hands
3. Put any dead birds or rubbish into the bin
4. **Disinfect field equipment:**
 - using the boot cleaning tub, scrub off any mud, sand, faeces, feathers etc.
 - spray other surfaces with disinfectant
 - leave to soak in the boot cleaning tub
 - put you phone in its bag into the disinfectant container
5. **Disinfect and take off outer layers**
 - sanitise your rubber-gloved hands
 - brush off the worst of the mud, sand, faeces, feathers etc. from your boots
 - step into the disinfectant tub and scrub your boots.
 - pull off tape from around the boot legs and bin it
 - unzip rain jacket
6. **Remove rubber gloves:**
 - remove tape from each wrist and bin it
 - with your right hand, pinch the outside top of left rubber glove
 - pull down and peel off, turning glove inside out
 - with your left hand, carefully slide your finger under the top of the right glove
 - pull down and peel right glove off, turning it inside out
 - bin both gloves
 - sanitise your nitrile-gloved hand
7. **Remove rain jacket:**
 - very carefully reach a gloved hand under each shoulder and slide down
 - only touch the inside of the jacket
 - remove jacket sleeves, turning them inside out
 - place in disinfectant tub.
 - sanitise your nitrile-gloved hand
8. **Remove coveralls:**
 - pull the hood down
 - unzip the coveralls and reach inside the front to slip off your shoulders, only touching the inside
 - sanitise your nitrile-gloved hands.

9. Take nitrile gloves off

- remove tape from each wrist and bin it
- sanitise your nitrile-gloved hands
- with your right hand, pinch the outside top of left glove
- pull down and peel off, turning glove inside out
- with your left hand, carefully slide your finger under the top of the right glove
- pull down and peel right glove off, turning it inside out
- bin both gloves.

10. Remove your coveralls, rain pants and boots:

- fully unzip the coveralls and reach inside the front to slip off your shoulders
- only touch the inside
- peel it down, along with the rain pants, turning them inside out
- step out of your boots into crocs.
- sanitise your hands.
- lift coveralls off the boots, only touching the inside
- place in rubbish
- leave rain pants and boots in the disinfectant tub.

11. Remove goggles or glasses:

- grab the elastic straps at the back of your head and pull off
- hold the sidearms of glasses and remove them
- put goggles or glasses into disinfectant container.

12. Remove mask and wipe your face:

- grasp the elastic straps at the back of your head and carefully lift mask off
- bin disposable masks, put respirators into the disinfectant container
- sanitise your hands
- wipe your face with a disposable cloth, then bin it.

Step 6: final clean-up on site

1. Package and disinfect the rubbish:
 - handle the rubbish bag from its clean outside surface
 - pull the top together and apply a tie
 - spray the outside with disinfectant
 - repeat with the other two bags to create a triple layer.
2. Sanitise your hands
3. Step over into your shoes on the clean side
4. Spray everything on the dirty side with clean-side disinfectant, including the dirty-side spray bottle and your crocs.
5. Take out your phone and close up the disinfectant container, leaving your goggles and respirator inside.
6. Pack everything into the fish bin and put into your vehicle
7. Sanitise your hands

Step 7: back at base and at home

Clean, tidy and store everything

1. Put the rubbish bag into general waste
2. Disinfect everything again, then rinse, dry and store so it's ready for next time.
3. Wash your hands with soap and water.