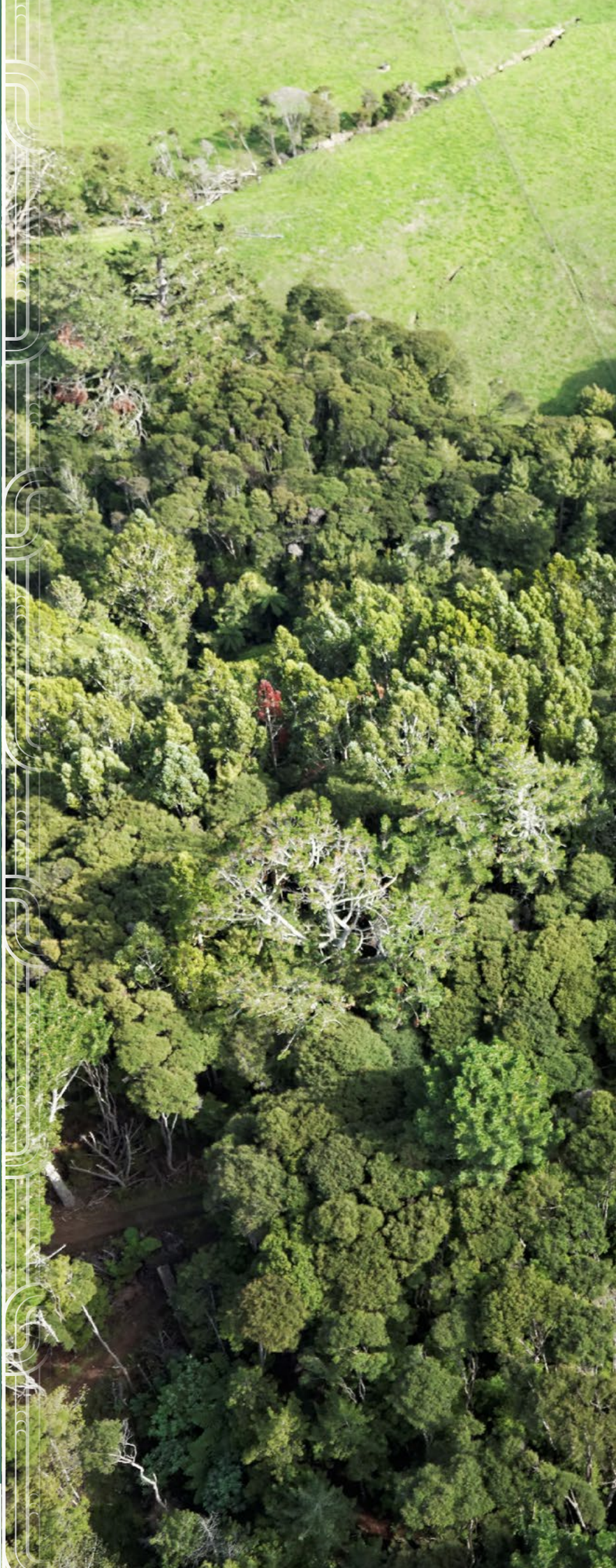




Kauri Ora: Guide for Rural Landowners

Guidance for preventing
the spread of the PA
pathogen, which causes
kauri dieback disease



Give Kauri space to grow

This document is a best practice guide for keeping Kauri safe, rather than a prescriptive document. We encourage you to take as many reasonable actions as you can to help give Kauri space to grow and keep these important trees safe.

The Tiakina Kauri Management Agency has been established to support landowners and others to take the best possible actions to protect Kauri. We know that as landowners you are the guardians of these iconic trees and that without your help Kauri remains at threat from the PA pathogen.

This guide is a comprehensive collection of all the potential actions that can be taken to protect Kauri. It highlights best practice and encourages understanding of the risks. The rules and best practice standards are the foundation of the actions you can take to keep Kauri safe. A range of agencies and organisations are involved in Kauri protection and many of these have joined together to write this guideline.



KA RAUHĪ TE TUPU O TE KAURI

GIVE KAURI SPACE TO GROW



Tiakina Kauri is an agency based within Biosecurity New Zealand that provides national direction for the achievement of the objectives of the National Plan for Kauri, through active partnership with mana whenua and collaboration with regional councils and the Department of Conservation.

For more information about protecting Kauri, visit www.kauriprotection.co.nz

Purpose of this guide

This guide is for farmers and rural landowners who have Kauri on or near their property.

Kauri are threatened by a microscopic soil-borne organism called *Phytophthora agathidicida* (PA). It is spread through the movement of soil and water and, in most cases, once a tree is infected it will die. There is no known cure for the disease caused by PA, and there are limited treatment options. The best way to protect Kauri is by stopping the PA pathogen from spreading.

A number of activities and items in rural environments pose a significant risk of moving potentially contaminated soil around. This document provides best-practice advice for protecting Kauri within the rural landscape, as well as guidance for complying with the rules of the National Plan for the protection of Kauri.

Staying away from Kauri, and preventing soil movement around Kauri, are the best ways to protect Kauri.

Disclaimer

The information in this guide is intended to be general information. It is not intended to take the place of, or to represent, the written law of New Zealand or other official guidelines or requirements. While every effort has been made to ensure the information in this document is accurate, Tiakina Kauri (and any of its representatives involved in the drafting of these guidelines) does not accept any responsibility or liability for error of fact, omission, interpretation or opinion that may be present, nor for the consequences of any decisions based on this information.



Kauri next to farmland

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Legislation to protect Kauri

The National Pest Management Plan for the protection of Kauri

In August 2022, a National Pest Management Plan was launched to help protect Kauri from the *Phytophthora agathidicida* (PA) pathogen. The National Plan includes rules that apply to anyone who grows Kauri, goes into Kauri forests, or lives or works around Kauri.

Information about the National Plan rules that are relevant to farmers and rural landowners who have Kauri on or near their property is included in this guide.

The National Plan rules that apply are summarised in each section of this guide.

How do the rules of the National Plan for Kauri work?

The Tiakina Kauri | Kauri Protection programme helps people understand and comply with the National Plan rules through education and awareness programmes.

In cases of clear and substantial or continued non-compliance with the rules, prosecution or infringement fees could be applied.

For more information about the National Plan, visit www.kauriprotection.co.nz/national-plan

Biosecurity Act 1993

Under the Biosecurity Act, *Phytophthora agathidicida* (PA) is an unwanted organism. This means it is an offence to release PA, cause PA to be released, spread, propagate, or act in a manner likely to encourage the propagation of PA.

For more information about unwanted organisms, visit the '*Find, report, and prevent pests and diseases*' section on the MPI website. www.mpi.govt.nz/biosecurity or email info@mpi.govt.nz

Regional and territorial authority requirements and rules

Your council may have additional requirements for Kauri in their regional pest management plan, unitary plan, or district plan. See [page 24](#) for more information.

Kauri on your property?

If you have Kauri on property you live on or own, you play an important role in protecting them. You must follow the rules of the National Plan that apply to you, as well as guidance on PA pathogen hygiene, to manage the risks and potential pathways of pathogen spread.

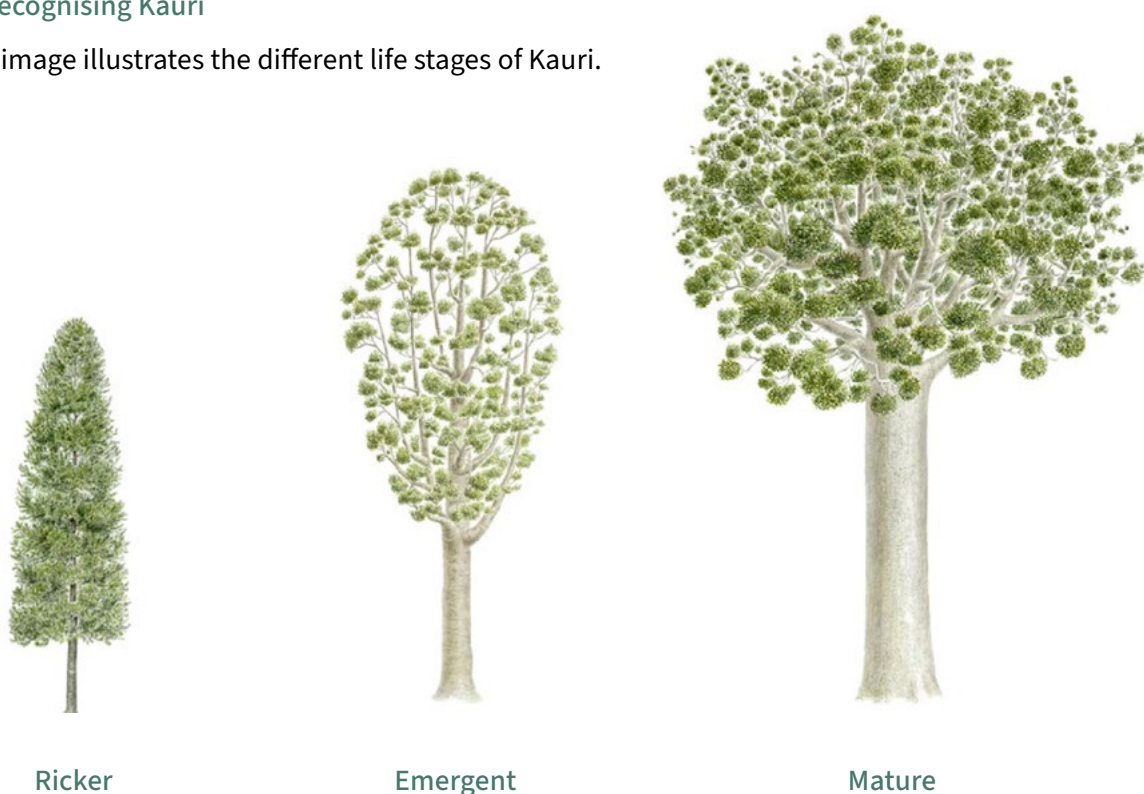
You can help protect your Kauri by:

1. Keeping an eye on the health of your Kauri - preferably from a distance.
2. Avoiding going into Kauri forest whenever possible, and staying out of Kauri Hygiene Zones (see figure 2).
3. Arriving clean to Kauri areas and leaving clean (clean your footwear and equipment so it is dirt-free before and after being near Kauri). Disinfect once dirt-free with suitable disinfectants. See Hygiene Protocols on page 9 for more information.
4. Fencing off Kauri where possible, to minimise root and soil disturbance by people and animals.
5. Displaying signage to notify visitors before they enter your property that Kauri hygiene protocols apply.

For general information about the ecology of Kauri, common diseases and advice about how to care for your Kauri, see the Kauri Care Guide, at www.kauriprotection.co.nz/resources

Figure 1: Recognising Kauri

The below image illustrates the different life stages of Kauri.



PA Risk Management Plans

Managing the risk of introducing and moving PA is key to protecting Kauri. If you have Kauri on your property, particularly in a forest environment, we recommend you develop and follow a PA Risk Management Plan.

A PA Risk Management Plan identifies all the ways dirt can be moved on your property, and how to manage each one.

Your regional council may be able to help you develop a PA Risk Management Plan. A 'how to' guide and a template for creating a PA Risk Management Plan are available at www.kauriprotection.co.nz/resources

National Plan rules

Several rules of the National Plan for Kauri apply if you have Kauri on land you live on or own. The below rules apply generally, and activity-specific rules are listed by activity throughout this guide.

If your Kauri trees look sick, you must let Tiakina Kauri or your regional council know.

Note: information about the symptoms of a PA pathogen infection is available on www.kauriprotection.co.nz **(Rule 1)**

You may also be asked to provide additional information to Tiakina Kauri to help manage the PA pathogen. **(Rule 2)**

If your property is already infected with PA or has a high risk of being infected, Tiakina Kauri may ask you to develop a PA Risk Management Plan to help reduce the risk of the PA pathogen spreading on your property. **(Rule 4)**.

Kauri Hygiene Zone

Kauri roots are shallow and fragile and extend outwards about 3x the radius of the canopy of the tree; this area is called the Kauri Hygiene Zone (see figures 2 and 3).

The fine feeder roots are susceptible to infection from the PA pathogen and damage from environmental stress, mechanical damage, compaction and animal trampling.

As the Kauri canopy extends with age, the outermost canopy dripline also extends, so older trees have a wider Kauri Hygiene Zone.

Figure 2: Kauri Hygiene Zone – single Kauri

This illustration shows the Kauri Hygiene Zone for a single Kauri.

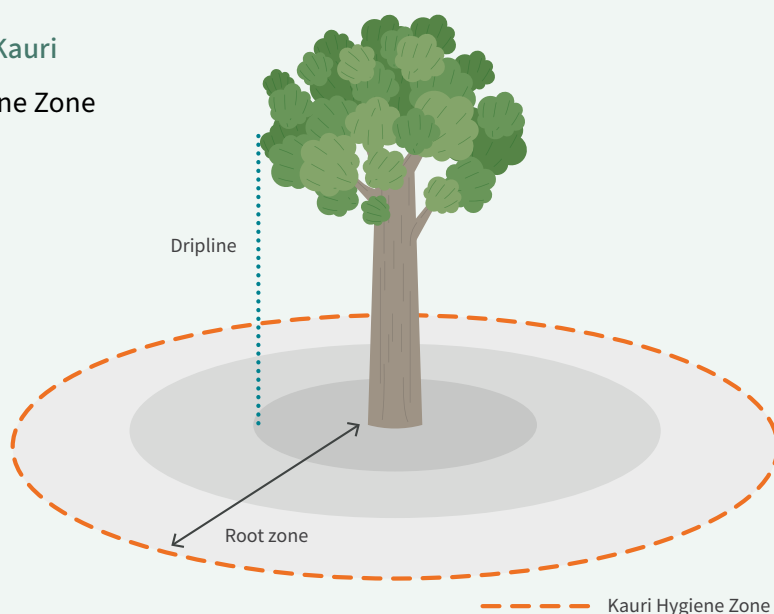
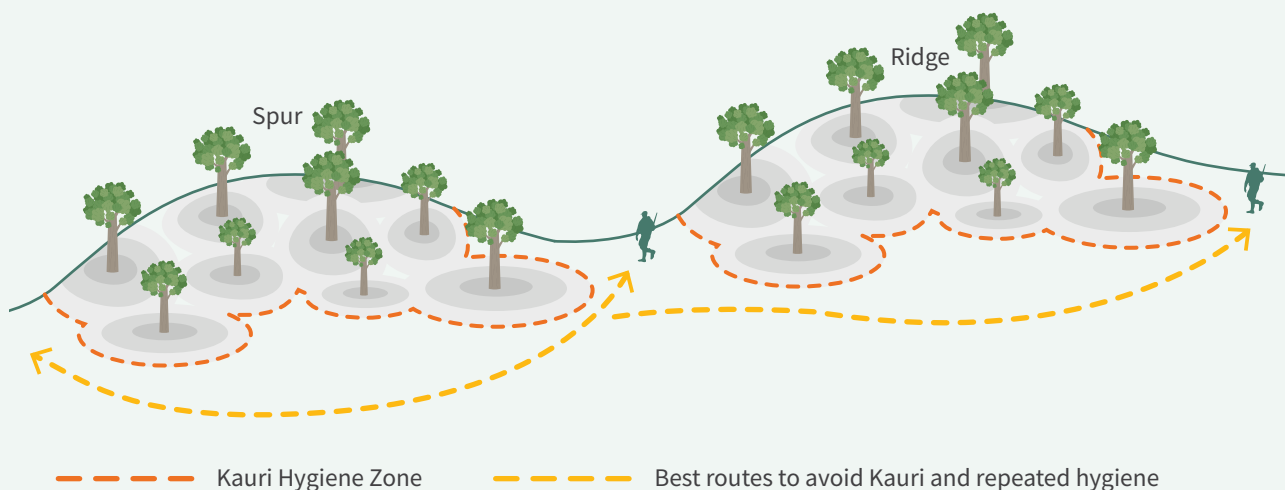


Figure 3: Avoiding Kauri Hygiene Zones

Where there are multiple Kauri growing near each other, their individual Kauri Hygiene Zones (and root systems) interconnect, as illustrated below. The dotted yellow lines highlight the best way to move through Kauri stands or forests to completely avoid Kauri Hygiene Zones.



Hygiene protocols

To protect Kauri we must stop PA-contaminated soil and organic matter being moved by humans and animals. As such, it is essential to practise the below hygiene protocols before entering and before leaving Kauri forest areas or Kauri Hygiene Zones. [Figure 5](#) illustrates when to carry out hygiene protocols.



Scrub

Remove all dirt from any items that will touch the ground, including footwear, tools and equipment, vehicles, machinery etc. using a stiff-bristled scrubbing brush and other dirt-removing tools. Physically removing dirt is vital.



Check

Always check to make sure all items are dirt/soil free. If they are still dirty, keep cleaning. See [figure 4](#).



Spray

Once all your items are dirt-free, spray them with disinfectant. Disinfectant cannot penetrate clumps of dirt. Allow the disinfectant to dry after application. Note: do not spray disinfectant on animals.

Suitable disinfectants are:

- SteriGENE® – 2% solution with water.
- methylated spirits – 70% concentration rate (check the 'denatured alcohol content' as some meths are already diluted to 70%).

For more information about disinfectants and hygiene protocols, see the Kauri Ora: Off-track in Kauri forests guide at www.kauriprotection.co.nz/resources



Spray your footwear with disinfectant once it is dirt-free

Figure 4: Clean your footwear and other items until they are dirt-free

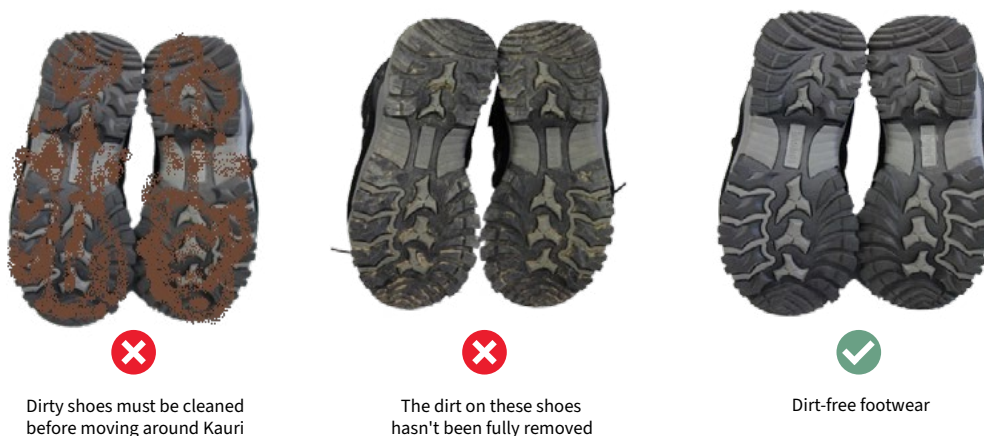
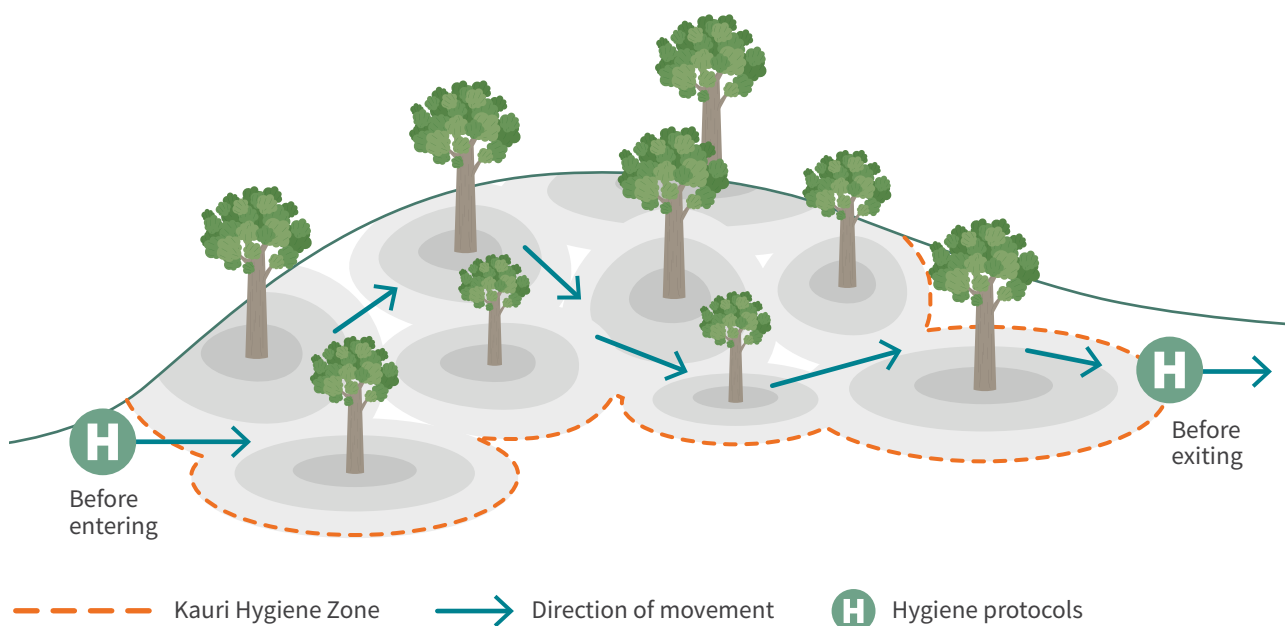


Figure 5: When to carry out hygiene protocols

You must arrive clean, keep clean, and leave clean when going into Kauri stands or forests.

If you are going into a Kauri Hygiene Zone – whether it's a singular or interconnected Kauri Hygiene Zone - you should complete the hygiene protocols before entering and before leaving the Kauri Hygiene Zone.



Hygiene kits

Keep a hygiene kit in your ute, quad, tractor, truck, helicopter or saddle bag to ensure you can clean footwear, bike tyres, small tools and equipment until they are free of dirt/soil before entering and before leaving Kauri forest and Kauri Hygiene Zones.

If you are away from wash-down areas, or if you can't clean before leaving the area, contain all your dirty gear for thorough cleaning back at the wash-down area, base or depot.

A basic portable hygiene kit should include the following:

- 1-2 stiff-bristled brushes.
- Another tool to scrape dirt out of the tread of footwear or tight places.
- A spray bottle to contain disinfectant, or a pressurised spray pack containing either water for the physical removal of dirt, or disinfectant, for sterilising gear after the dirt has been removed. See information about suitable disinfectants on page 9.
- Overshoe booties and/or disposable gloves if you are working within Kauri Hygiene Zones.
- A container of disinfectant wash solution to keep in your vehicle. Ensure any dirty water is discarded into gravel or grass away from Kauri.
- Bins or large containers can also be used to contain dirty gear that can't be washed immediately.
- A second pair of footwear to wear in your vehicle to stop the vehicle becoming a source of PA contamination.



Essential hygiene kit items include a stiff-bristled brush and a spray bottle with disinfectant

People

People and equipment/machinery have the potential to move large amounts of soil within or between Kauri forests.

National Plan rule

Before entering a Kauri forest, you must clean all dirt/organic matter off all items that touch the ground. Clean them again before you leave. This includes cleaning tools, cars, bikes, footwear, gloves, etc. **(Rule 8)**

Kauri protection actions

- Stay away from Kauri as much as possible.
- Don't move or work around Kauri in wet conditions. The PA pathogen spreads more easily in wet conditions.
- Stay out of Kauri Hygiene Zones.
- Follow the hygiene protocols on page 9 whenever you go into, out of, or move between Kauri forests and Kauri Hygiene Zones.
- Have separate footwear and clothing to wear in Kauri forests – and remove or clean them before moving to another area.
- Make sure that everyone who intends to go into Kauri forests and/or move within Kauri Hygiene Zones on your property (including visitors and contractors) follows the hygiene protocols on page 9 to remove all dirt/soil from footwear, clothing, gear, bikes, vehicles, machinery, animal hooves and dog paws etc.
- Specific information for trappers and hunters is available at: www.kauriprotection.co.nz/resources



Keep visitors away from Kauri when possible

Vehicles and machinery

Vehicles and machinery carry and move large amounts of soil that could be contaminated with the PA pathogen. They may also affect Kauri health by compacting and disturbing soil, or damaging Kauri roots.

National Plan rules

If you want to undertake any earthworks within a Kauri Hygiene Zone (page 8), you must have an Earthworks Risk Management Plan. **(Rule 5)**

Key components of the Earthworks Risk Management Plan include:

- procedures for cleaning vehicles, machinery, equipment, footwear and clothing so they are dirt-free and disinfected before and after going into or near Kauri areas.
- procedures for cleaning to prevent PA from being introduced to, or spread from, the site, including guidance about wash-down areas, dirty machinery, and vehicle hygiene stations.

A 'how to' guide and a template for creating an Earthworks Risk Management Plan are available at www.kauriprotection.co.nz/resources

If you own land with publicly accessible tracks or roads that go through Kauri forest areas, **Rule 10** applies – see below.

Publicly accessible tracks or roads through Kauri forests?

The National Plan includes minimum requirements for any tracks or roads on your property that run through Kauri forest if they are publicly accessible.

Any such roads and tracks must be upgraded to prevent the movement of dirt, and/or provide for hygiene actions to be undertaken at entry and exit points.

For more information, see www.kauriprotection.co.nz/national-plan/land-and-stock-owners

Kauri protection actions

- Avoid all unnecessary vehicle and machinery use around Kauri.
- Keep vehicles and machinery outside of Kauri Hygiene Zones as much as possible. Consider walking into the forest rather than using a vehicle to reduce the risk of driving on, or parking on, Kauri roots.
- If it is essential to operate vehicles or machinery within a Kauri Hygiene Zone, you must:
 - prepare, and operate in accordance with, an approved PA Earthworks Risk Management Plan.
 - clean the vehicles and/or machinery of all dirt, then disinfect them at a wash-down area, before and after operating them in that Kauri area.

- Consider closing existing roads and tracks that go through Kauri forests, or divert them away from Kauri Hygiene Zones.
- Maintain gravel and sealed surfaces on roads and tracks to minimise the risk of soil movement. Vehicles should always stay on formed roads and tracks through Kauri forest.
- Make sure you construct and maintain gravel roads in Kauri forests in accordance with an Earthworks Risk Management Plan or a PA Risk Management Plan.
- Avoid building/aligning new roads through Kauri forest and Kauri Hygiene Zones.

For more information about the requirements of wash-down sites and hygiene procedures for vehicles and machinery, refer to the Vehicle and Heavy Machinery Hygiene guidelines and the Earthworks Risk Management Plan at www.kauriprotection.co.nz/resources



Conducting earthworks within Kauri Hygiene Zones requires an Earthworks Risk Management Plan

Stock

Stock and farm animals risk carrying potentially contaminated soil on their hooves and coats/fleece as they move within your farm and between farms.

It is important to stop your stock accessing Kauri forests, especially if PA has been detected. Stock can wander further through unfenced contiguous forest, putting Kauri in other parts of the forest at risk. In some cases, **rule 6** of the National Plan may apply, as below.

National Plan rule

If Tiakina Kauri, an inspector, or an authorised person, gives you written notice that the PA pathogen has been detected in a Kauri forest near you, and within 500 metres of an access point to that forest, you must ensure that any grazing animals you own do not enter that Kauri forest. **(Rule 6)**

If rule 6 applies to you, you'll need to ensure you have well-maintained fencing in place. Your regional council may be able to provide advice on this.

Kauri protection actions

- Keep stock out of Kauri forests by:
 - Ensuring fencing around Kauri forests and/or Kauri Hygiene Zones is well maintained and keeps all stock out.
 - Planning so that your stock do not graze in Kauri forest in winter.
 - Keeping new stock brought onto your property in a paddock away from Kauri initially, to ensure they are not trekking PA into a Kauri Hygiene Zone.
 - Replacing any stock that are accustomed to jumping or breaking into fenced-off Kauri forest blocks.
- Develop a management plan for your Kauri forest blocks that details how stock movement is managed.
- Keep records of where your stock have come from. Have they come from other properties with Kauri?
- If you have working dogs on your farm, it's best to keep them away from Kauri forests. If you can't, clean your dogs' paws with a soft cloth where possible to remove dirt before they enter Kauri forests.



Fence to keep stock out of Kauri forests

Feral animals

Feral animals can carry and move contaminated soil large distances, so controlling feral animals is important for protecting Kauri.

Rooting by feral pigs can also cause significant damage to Kauri root systems and to overall forest health.

National Plan rules

The National Plan prohibits the release of animals, including pigs, into Kauri forests. Failure to comply may result in prosecution. **(Rule 7)** Note: This doesn't apply to dogs under your control/command or to grazing animals on your farm. Grazing animals are covered by **Rule 6** (see page 15).

Kauri protection actions

- Control feral hooved animals on your property, including feral pigs, goats and deer.
- Ensure that people trapping or hunting on your property:
 - clean their footwear and gear so it is dirt-free before entering and leaving Kauri forests.
 - stay out of Kauri Hygiene Zones.
 - use established tracks as much as possible.
 - place traps away from Kauri Hygiene Zones.
 - dispose of dead animals away from Kauri Hygiene Zones.

For further guidance about hunting and trapping in Kauri forests, see www.kauriprotection.co.nz/resources



Controlling feral animals is important for protecting Kauri

Fences, tracks and structures

Fencing off Kauri forest blocks or Kauri Hygiene Zones helps protect Kauri, but care is needed because the construction and maintenance of fences, tracks and structures involves the movement of soil.

Kauri protection actions

- Keep existing fences around Kauri forest blocks and Kauri Hygiene Zones in good condition and repair any damage.
- When installing new fencing to protect Kauri forest blocks or Kauri Hygiene Zones, install the fences beyond the limit of Kauri Hygiene Zones where possible.
- If it is not possible to install new fencing beyond the limit of Kauri Hygiene Zones, include as much of the Kauri Hygiene Zone area as possible within the fenced off area.
- After installing new fencing, consider planting appropriate native species outside of the Kauri Hygiene Zone to buffer and protect the Kauri, such as mānuka, kānuka, māpou, or mingimingi. Refer to [Restoration planting on page 19](#).
- When building or maintaining buildings, tracks, roads and landing areas (i.e. for forestry) in or near Kauri:
 - make sure machinery is cleaned so it is dirt-free before entering and leaving Kauri forests or Kauri Hygiene Zones. If you are conducting earthworks, rule 5 may apply. See [Vehicles and machinery, on page 13](#).
 - situate new buildings out of Kauri forests and away from Kauri Hygiene Zones.
 - minimise the amount of soil moved/excavated and the area of disturbance.
 - do not transport any soil or organic material into or out of Kauri forests.
 - dispose of excavated materials either in situ or at an approved landfill site. For more information, see the Landfill Disposal of Contaminated Material guidelines at www.kauriprotection.co.nz/resources
 - Ensure that new aggregates such as gravel, limestone or metal for tracks and roads, are sourced from a quarry that follows the Quarry Hygiene guidelines (available at www.kauriprotection.co.nz/resources), or a quarry that is not located in or near Kauri forests (including farm quarries). See [Sourcing and using aggregate and fill, on page 21](#).
 - Where possible, the paths of tracks and roads should be located downslope of Kauri.



Maintain fencing around Kauri

Weed control, pruning or the removal of vegetation

Any vegetation that is pruned in, or removed from, a Kauri forest should be considered as potentially contaminated with PA, or at high risk of moving potentially contaminated soil.

For more information on best practice, please read the Kauri Ora: Pruning and Removing Kauri guide, available at www.kauriprotection.co.nz/resources.

Kauri protection actions

- Use low-impact vegetation control methods that do not disturb the soil, such as mowing or slashing, rather than digging or grubbing near Kauri.
- Avoid going into Kauri Hygiene Zones.
- You can either leave vegetation from Kauri Hygiene Zones in situ, or dispose of it at a landfill site.
- If the site is **contaminated with PA**:
 - permits under section 52 of the Biosecurity Act 1993 are required to move or dispose of PA contaminated material - which can occur when pruning or weeding near infected Kauri trees.
 - If it is not possible to leave PA contaminated material in situ, disposal away from the site must be done at an approved landfill facility that meets the criteria outlined in the Landfill Disposal of Contaminated Material guideline, available at www.kauriprotection.co.nz/resources



When conducting vegetation control around Kauri, use low-impact methods that do not disturb the soil, such as mowing

Restoration planting

Planting around Kauri involves risk due to the movement of soil/potting mix and plant material that could potentially contain the PA pathogen.

Make sure that any new Kauri you plant are healthy and are sourced from suppliers who grow Kauri in accordance with the requirements of rule 3 of the National Plan for Kauri.

National Plan rules

Rule 3 of the National Plan for Kauri relates to growing Kauri. This rule states that all Kauri plants or trees must be grown according to a Kauri plant production plan **if they are going to be moved off the property from which they were grown**. For more information see: www.kauriprotection.co.nz/national-plan/growing-kauri

If you grow Kauri solely to plant on your own property, rule 3 of the National Plan does not apply to you.

For general information about growing Kauri, see the Kauri Care Guide, at www.kauriprotection.co.nz/resources

Kauri protection actions

- Plant outside Kauri Hygiene Zones.
- Find information from your regional council, local native plant nursery, or Department of Conservation about appropriate plants for restoration planting on your site.
- Buy healthy Kauri plants/trees from plant producers that follow correct Kauri hygiene protocols, in accordance with rule 3 of the National Plan.

Note: Plant Pass (www.plantpass.org.nz) nurseries that are Plant Pass Certified with the 'Kauri Schedule' grow Kauri plants in compliance with the requirements of the National Plan for Kauri. The Kauri Schedule is listed as 'KS' in the 'Standards' column of the Plant Pass list of participating producers: www.plantpass.org.nz/biosecurity/participatingproducers



Buy healthy Kauri plants from plant producers that grow Kauri in accordance with rule 3 of the National Plan

Farm forestry operations

The key risks of forestry operations in Kauri forests and Kauri Hygiene Zones relate to the movement of contaminated soil by vehicles and people during all stages of the work - from planning, to the construction of roads and landings, to planting, tending and harvesting.

National Plan rules

Before entering a Kauri forest, you must clean all dirt/organic matter off all items that will touch the ground. Clean them again before you leave. This includes cleaning tools, cars, bikes, footwear, gloves, etc. **(Rule 8)**.

If you want to undertake any earthworks within a Kauri Hygiene Zone (page 8), you must have an Earthworks Risk Management Plan. **(Rule 5)**

Key components of the Earthworks Risk Management Plan include:

- procedures for cleaning vehicles, machinery, equipment, footwear and clothing so they are dirt-free and disinfected before and after operating them in or near Kauri areas.
- procedures for cleaning to prevent PA from being introduced to, or spread from, the site, including guidance about wash-down areas, dirty machinery, and vehicle hygiene stations.

A 'how to' guide and a template for creating an Earthworks Risk Management Plan are available at www.kauriprotection.co.nz/resources

The New Zealand Forest Owners Association has developed a comprehensive guide to protecting Kauri during forestry operations. Visit www.nzfoa.org.nz

Kauri protection actions

- If Kauri are growing near pine forest, we recommend you develop and follow a PA Risk Management Plan for your forestry operations. A 'how to' guide and a template for creating a PA Risk Management Plan are available at www.kauriprotection.co.nz/resources. A PA Risk Management Plan identifies all the ways dirt can be moved on your property, and how to manage each one.
- Plant new forests away from Kauri forests and Kauri Hygiene Zones.
- Plan the operations to avoid Kauri as much as possible - including in relation to road construction, operating zones, skid sites, planting, spraying, and pruning.
- Prepare an Earthworks Risk Management Plan before any earthworks are carried out within a Kauri Hygiene Zone (see above).

Sourcing and using aggregate and fill

Because PA lives in soil, there is a risk that quarrying operations and gravel pits can inadvertently spread and introduce PA to new sites via infected material used for projects such as track and road upgrades and construction.

Globally, this has been proven to be a major contributor to the introduction and spread of *Phytophthora* species to new locations.

National Plan rules

If you want to undertake any earthworks, including related to tracks and roading, within a Kauri Hygiene Zone (page 8), you must have an Earthworks Risk Management Plan. **(Rule 5)**

Key components of the Earthworks Risk Management Plan include:

- procedures for cleaning vehicles, machinery, equipment, footwear and clothing so they are dirt-free and disinfected before and after going into or near Kauri areas.
- procedures for cleaning to prevent PA from being introduced to, or spread from, the site, including guidance about wash-down areas, dirty machinery, and vehicle hygiene stations.

A 'how to' guide and a template for creating an Earthworks Risk Management Plan are available at www.kauriprotection.co.nz/resources

Reducing the risk of introducing PA to your property when sourcing aggregate

It is safe to source aggregate from your own property to use in other parts of your farm that do not have Kauri.

Kauri protection actions

- When buying aggregate from a quarry - or other source of aggregate - in the upper North Island (Northland, Auckland, Waikato or the Bay of Plenty), ask if they source material from within catchments where there are forested areas with Kauri upslope of operations.
 - If there are any PA-positive Kauri upslope of the supplier's operations, there is a risk that their aggregate could contain PA.
 - Check if they are operating in accordance with a PA Risk Management Plan and/or have good hygiene and biosecurity practices in place, which helps the quarry reduce the risk of PA spread during their operations.
- Note: some aggregate suppliers are council approved, or have received temporary accreditation from a council or the Department of Conservation (DOC) for the duration of a project. Check the expiry date of their accreditation, along with their procedures to manage the risk of PA spread if their temporary accreditation has expired.

- Note: at the time of writing this guide, no quarry in the upper North Island had received long-term accreditation.
- For the site where aggregate is required, prepare an Earthworks Risk Management Plan before any earthworks are carried out within a Kauri Hygiene Zone (see above).

For more information about quarrying and extraction see the Quarry and Extraction Best Practice Guide at www.kauriprotection.co.nz/resources



Quarry near Kauri forest

Wash-down areas

The location of wash-down areas (whether temporary or permanent) is critical to ensure that nearby Kauri or Kauri Hygiene Zones, including those downslope of the wash-down area, are not impacted by any run-off.

Wash-down areas should be constructed/located on a hard standing area (concrete pad, grate or gravel area) that is mud-free, away from waterways, and has access to a supply of water. They should ideally be fitted with a sump, sediment trap or effluent disposal system.

A commercial car wash is acceptable if used immediately upon leaving a Kauri forest.

Wash-down areas should include:

- hard brushes and long-handled brooms, for initial dry brushing;
- water and scrubbing brushes, to help remove persistent mud and soil;
- a crowbar (or similar) to dislodge large clods of mud;
- a high-pressure hose; and
- disinfectant (see suitable disinfectants on page 9) – contained either in spray bottles or in a pressurised spray unit.

The systematic inspection and cleaning of a vehicle or machinery should include, but not be limited to, the following:

- cabin: floor and under the seats;
- body: the underside, any crevices, ledges or gaps, footwells, tray, bumper bars, cab steps, and around the fuel tank;
- wheels (inside and outside): between dual wheels if fitted, the spare wheel, and mud guards;
- tray: chassis and hollow channel; and
- attached or associated equipment: buckets, blades - including teeth etc.

For more information about the requirements of wash-down sites and hygiene procedures for vehicles and machinery, refer to the Vehicle and Heavy Machinery Hygiene guidelines and the Earthworks Risk Management Plan guide at www.kauriprotection.co.nz/resources

National, regional and territorial authority requirements and rules

Item	Link to further information	In brief
Biosecurity (National PA Pest Management Plan) Order 2022	www.kauriprotection.co.nz/national-plan	<p>The National PA Pest Management Plan came into effect in August 2022. The strongest form of protection available under the Biosecurity Act 1993 to help protect Kauri from the PA pathogen, the National Plan sets out mechanisms to increase protection for Kauri, as well as 10 rules to help protect Kauri from the PA pathogen. Rules 1 to 3 of the Plan apply nationally, while Rules 4 to 10 apply to areas in which Kauri naturally grow (Northland, Auckland, Waikato, Coromandel and the Bay of Plenty).</p> <p>To view all the rules of the National Plan, visit: www.kauriprotection.co.nz/national-plan/rules-summary</p>
Northland Regional Pest Management Plan 2017-2027 (RPMP)	www.nrc.govt.nz/pestandpathwayplan	<p>In the Northland region, kauri dieback is classified as a Sustained Control Disease. Landowners of properties identified as 'high risk' must implement an approved PA management plan to reduce the risk of the pathogen spreading.</p> <p>There is also an obligation on anyone who sees or suspects the presence of PA to report the sighting to Northland Regional Council (Rules 8.1.1, 8.1.2).</p>
Auckland Council Regional Pest Management Plan 2019-2029 (RPMP)	www.aucklandcouncil.govt.nz/RPMP	<p>In the Auckland region, kauri dieback disease is classified as a Sustained Control Disease (section 7.7.5.2). Areas where the PA pathogen is undetected are prioritised for protection through exclusion zones, which require increased hygiene measures. In addition, the rules require controls on the movement of plant material and plant goods.</p>

Item	Link to further information	In brief
Auckland Unitary Plan	www.aucklandcouncil.govt.nz/unitaryplan	In the Auckland Unitary Plan there are provisions (objectives, policies, standards, rules) that promote biosecurity actions and activities to reduce the spread of the PA pathogen, which causes kauri dieback disease. They impose restrictions on land disturbance and vegetation removal that relate to the movement of soil and Kauri material. Refer to the Auckland Unitary Plan for further information.
Controlled area notices	www.kauriprotection.co.nz/about-kauri/controlled-areas	There are controlled area notices active in the Waitākere and Hunua ranges, Goldie Bush Scenic Reserve, and on Hauraki Gulf islands. These notices restrict soil movement. Landowners neighbouring these areas must adhere to the requirements of the controlled area notices when entering the parklands.
Thames Coromandel District Council District Plan	www.tcdc.govt.nz/Our-Council/Plans-and-Reports/District-Plan	Earthworks in the Kauri Hygiene Zone (“an area three times the maximum radius of the canopy dripline of New Zealand Kauri trees in the area that is the subject of proposed earthworks”) are only permitted to proceed with a Kauri Dieback Disease Risk Management Plan which has been approved by Thames Coromandel District Council.
Whangarei District Council Kauri Protection Plan	www.wdc.govt.nz	Call 0800 932 463 or email mailroom@wdc.govt.nz for information.

The above is a brief summary of the rules at the time of writing. Additional information or clarification should be sought from the relevant organisation/agency.

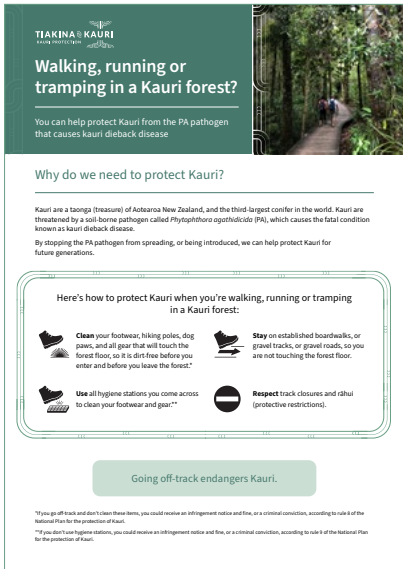
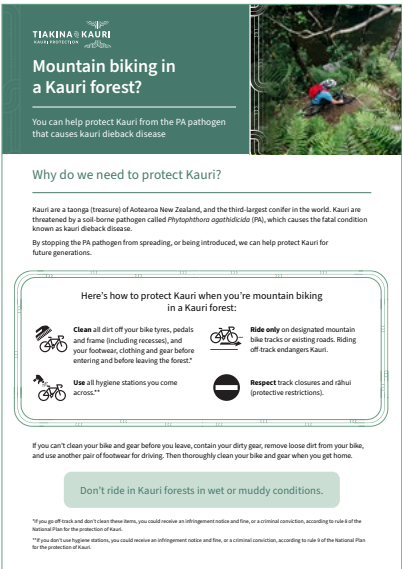
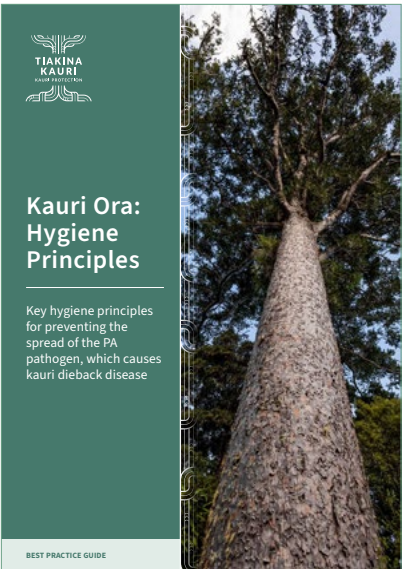
Checklist of on-farm biosecurity measures to protect Kauri

	Kauri forests	<p>Do you know where Kauri are on your farm?</p> <p>Check with your regional council or Department of Conservation office if you are unsure whether you have Kauri on your property, or where they are.</p>
	Farm access	<p>Do you have a single entry/exit point to your property?</p> <p>Having a single entry and exit point makes site management easier.</p>
	Hygiene signage	<p>Do you have clear Kauri hygiene signage at your farm gate?</p> <p>Make sure everyone entering your property is aware of the need to protect Kauri.</p>
	Biosecurity briefing area	<p>Is there a biosecurity briefing area near the farm entrance where visitors stop to be briefed?</p> <p>Ideally located at the entrance, this is where you can brief everyone entering your property on health and safety/biosecurity issues, and inspect their gear/vehicles for cleanliness.</p>
	Visitor briefing	<p>Do you brief visitors to your farm on Kauri protection requirements, and ensure they arrive with their equipment dirt-free and disinfected?</p> <p>On visitors' arrival, communicate Kauri protection risks and hygiene requirements as part of any health and safety/biosecurity briefing so they understand the part they can play in protecting Kauri.</p>
	Visitor risk	<p>Do you ask visitors whether they have been in Kauri forests?</p> <p>Determine the level of risk visitors and their activities on your farm may pose to Kauri on your property. For example, have they been in other Kauri forests or Kauri Hygiene Zones? Are they wearing footwear from that visit? Do they intend to go near Kauri on your property?</p>
	Parking areas	<p>Is there a designated public zone hard-stand parking area for visitors?</p> <p>Hard standing keeps visiting vehicles off the soil and reduces the risk of contaminated soil being brought onto your property.</p>
	On-farm vehicle	<p>Do you provide an on-farm vehicle that visitors can use if they need to visit other areas of your farm?</p> <p>Have a vehicle that remains on your property that visitors may use.</p> <p>Tracks through Kauri forests will need to be upgraded and maintained to prevent mud and pooling of water.</p>
	Farm-only boots and clothing	<p>Do you have farm-only boots and clothing?</p> <p>Have footwear and clothing that stays on your farm and is regularly cleaned until dirt-free, that is available for you and your visitors to use.</p>

	Boot wash areas	<p>Do you have a designated boot and gear wash area?</p> <p>Set up a wash area where you and any visitors can clean all footwear and gear until dirt-free. This may include temporary areas set up during farm tours or events.</p>
	Hygiene kits	<p>Do you carry a hygiene kit in your farm vehicle/s to clean boots and equipment until they are dirt-free when entering and leaving Kauri forests and Kauri Hygiene Zones?</p> <p>Maintain and carry a hygiene kit (e.g. in farm vehicles, on quads, in horse saddle bags) for use when you are away from biosecurity wash-down areas.</p>
	Wash-down areas	<p>Do you have a wash-down area (with a waste area/sump to capture any runoff) that you can use to clean vehicles, machinery and large equipment until dirt-free if they have been in Kauri Hygiene Zones?</p> <p>Set up a larger wash-down area to clean larger equipment and gear until it is dirt-free. This may include temporary areas set up during farm tours or events.</p>
	Machinery and equipment	<p>Have you inspected your machinery and equipment?</p> <p>Make sure all machinery and equipment coming onto your farm is dirt-free on arrival and before leaving.</p>
	New stock	<p>Are new stock cleaned of dirt upon arrival?</p> <p>Check new stock to ensure their coats/fleece are dirt-free.</p>
	Excluding stock	<p>Are Kauri forest blocks and Kauri Hygiene Zones on your property fenced to exclude stock?</p> <p>Make sure Kauri areas are fenced and maintained so stock cannot get into Kauri forests.</p>
	Sourcing material	<p>Do you source material (soil/substrate/gravel) from non-Kauri areas?</p> <p>Source clean materials from an area that doesn't have Kauri.</p>

Other Kauri resources

Other useful resources are available at: www.kauriprotection.co.nz/resources



Mature Kauri in a forest environment

Contact information

Government	
Tiakina Kauri Kauri Protection programme	www.kauriprotection.co.nz Email: kauriprotection@mpi.govt.nz
Ministry for Primary Industries	info@mpi.govt.nz
Department of Conservation	www.doc.govt.nz/nature/pests-and-threats/diseases/kauri-disease kauridieback@doc.govt.nz
Regional Councils	
Northland Regional Council	0800 002 004 nrc.govt.nz/kauridieback protectkauri@nrc.govt.nz
Auckland Council	09 301 0101 aucklandcouncil.govt.nz/kauri kauri@aucklandcouncil.govt.nz
Waikato Regional Council	0800 800 401 waikatoregion.govt.nz/kauri kauri@waikatoregion.govt.nz
Bay of Plenty Regional Council	0800 884 881 ext 6010 info@boprc.govt.nz



This guide was updated in 2025 by Tiakina Kauri with the help and advice of:

- Gavin Clapperton (Kauriology) – Chair of review group
- Ashley Davenport (Te Roroa)
- Stuart Leighton (Auckland Council)
- Mihi McMahon (Te Kawerau ā Maki)
- Tracy Mezger (Department of Conservation)
- Roanne Sutherland (Department of Conservation)
- Nari Williams (Plant and Food Research)

The 2025 guide was endorsed by the Tiakina Kauri Operational Advisory Group.

The original version of this guide was prepared by Kim Parker and Kathryn O'Toole (Waikato Regional Council), and endorsed by:

- Ministry for Primary Industries
- Kauri Dieback National Programme
- Auckland Council
- Waikato Regional Council
- Northland Regional Council
- Bay of Plenty Regional Council
- Department of Conservation

For more information about protecting Kauri, visit www.kauriprotection.co.nz