




Rural Fire

A guide on how to manage the risks



FIRE EMERGENCY NEW ZEALAND

FEDERATED FARMERS OF NEW ZEALAND

NEW ZEALAND FARM FORESTRY ASSOCIATION

FOREST OWNERS ASSOCIATION

Wildfire risk is increasing

Climate change induced higher temperatures and wind speeds, together with lower humidity and rainfall, will bring us more wildfires.

In most parts of New Zealand there will be longer fire seasons and, in some places, extreme fire weather will occur up to three times more often.

This means there's a potential tipping point into the super-fires experienced overseas, which are larger and hotter, with a different dynamic behaviour, making control much more difficult, dangerous and costly.

These guidelines are meant for farmers, owners of woodlots and contractors. They are general in nature because how much risk an owner or contractor is willing to accept will vary, depending on their individual circumstances, resources and risk assessment.

In spring and early summer, owners and managers should work with local Fire and Emergency NZ (FENZ) staff to understand their wildfire risk, and then undertake a fire risk analysis and, if necessary, have that incorporated into the FENZ fire plan for that locality.

Wildfire in the rural working environment

Wildfires in rural areas can kill, injure and cause huge economic loss. Several New Zealand farmers have died when land-clearing fires got out of control. Court cases have resulted in significant penalties.

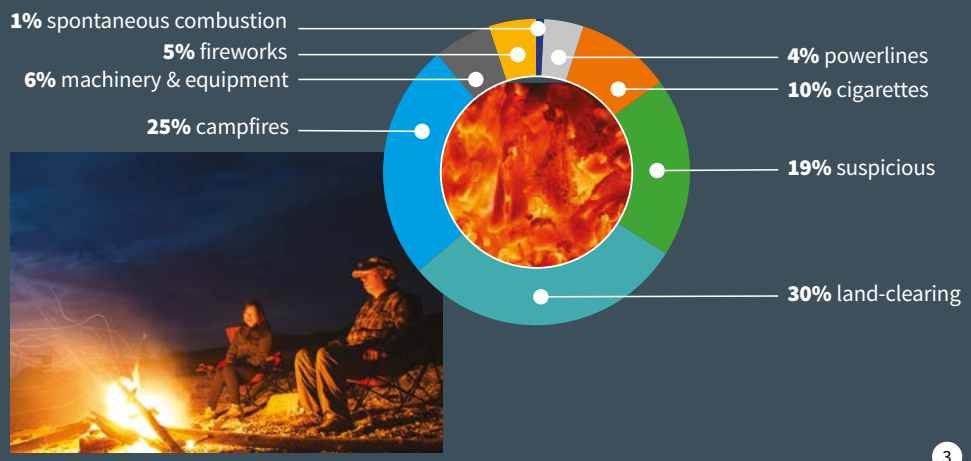
The fires may be accidental, such as from using machinery, or it's a burn-off which gets out of control, or someone has set the fire maliciously.

Wildfires do not follow property boundaries. They are driven by terrain, existing vegetation and the weather. An ember can be blown two kilometres and start a new fire.

While wildfires are often associated with forestry, most forest fires start outside the forest. The 2019 Pigeon Valley fire in Nelson is a case in point. It was started by sparks from a contractor discing a paddock near a forest.

Of particular concern are semi-urban properties such as life-style blocks, where there are typically a number of outdoor fire risks and often a lack of practical experience to reduce those risks.

Wildfire causes



Tips to reduce the risk of wildfire

Don't let controlled burns get out of control

Fire can be an efficient and economical tool to clear farmland, particularly crop stubble and scrub.

You can make the burn effective and safe, if you;

- Know your legal requirements. These include a possible FENZ permit, local legal covenants, DoC and Regional Council rules and local bylaws
- Plan the burn and prepare firebreaks
- Understand burning techniques
- Note the long-range weather forecast
- Advise neighbours

FENZ have launched a public education website – checkitsalright.nz

Go to **www.checkitsalright.nz** to apply for a permit online or call 0800 658 628.

Useful link:
Fire for Land Management

Discourage illegal, suspicious or dangerous activities

- Lock gates or put barriers across vehicle entries
- Make it difficult for anyone to park and burn a stolen vehicle
- Discourage cannabis cultivation
- Control recreational access, ban fires, or allow them only in specially prepared or designated areas
- Be vigilant and report suspicious behaviour to the Police or FENZ
- If necessary, use the Trespass Act



Operate machinery safely

One less spark – one less wildfire you can cause, whether you are driving large industrial vehicles, such as bulldozers, excavators or trucks, or you are using handheld tools, such as chainsaws, disc grinders and welding equipment.

Fires can start from slashers, graders, mowers or discs hitting stones, or from vehicle exhausts over stubble or long, dry grass.

It is a good idea in extreme fire danger times to stop using welders, chainsaws and slashers. Confine tractor operations to mornings when it's cooler.

Other things you can do include:

- Install spark-arrester shields on diesel trucks with exhausts higher than the cab, especially when carting hay
- If your ute has a diesel particulate filter park it where there is less risk when you regenerate the fuel
- Inform machine operators of the conditions outside their air-conditioned cabs
- Clean all machinery regularly, especially belly pans and spaces around motors, so they are free of oil, dust, grease, grass and straw
- Get rid of birds' nests in or around motors. It takes a starling only 15 minutes to make a nest
- Check your machinery's bearings and moving parts
- Carry fire extinguishers, shovels and knapsack sprayers during high fire danger periods

Be particularly careful when using machinery during extreme fire danger periods. Make sure to check the fire weather and fire season status in advance.

Hot-work such as welding, grinding, cutting and chainsaws

- Do hot-work indoors at a designated safe location, such as a welding bay
- Move fire hazards or flammable materials out of the work area
- Frequently wet down the work area
- Check pulleys and ropes for friction heat
- 30 minutes after you have finished the hot-work, do a final check for hot spots
- Confine hot-work hours to mornings when it's cooler
- Have a 'phone or other communication device you can use to summon help

Chainsaws can cause wildfires.

- Let chainsaws cool down before refuelling
- Sit them on a clean stump and not on the grass or pine needles
- Start the chainsaw away from the refuelling site
- Carry fuel in an approved fuel container. These are less likely to leak or spill fuel





See hot works
New Zealand Standard 4781:1973 Code of Practice for Safety in Welding and Cutting

Power lines

Remove vegetation which may fall across or grow into a live wire and cause a fire. Educate yourself on the rules around cutting away growth around power lines.

The Electricity Hazards Regulations 2003 specify the minimum distance for vegetation to be from electricity lines, for various voltages, and prescribe the rules for who is responsible for removing that foliage.

The Growth Limit Zone in the Schedule in the Regulations specifies the minimum distance of foliage from the electricity line. This distance depends on the voltage of the electricity line, and in the case of spans longer than 150 metres, the distance from the pole or pylon as well.

- Talk to the electricity line owner about keeping the line corridor clear of vegetation
- Do not light a fire under power lines
- Keep birds and vermin from nesting in and around meter boxes
- Get your meter box checked for 'hot-spots'

Harvesting near electricity lines is governed by other regulations.



Distances are measured from the maximum sag and swing of the conductor (wire)

Source: Transpower

Useful links:
Electricity Regulations
Trees and Transmission Lines

REDUCE THE RISK

Check the fire weather

Check NIWA's fire weather in your district about a week before you plan to light a fire. You should check even if it's a restricted or open fire season, and even if you have a fire permit. Check again a few days before, and then on the day itself.

The fire weather website has up-to-date local information about the chances of a fire starting. It lets you know how safe it is for different activities – to light an open fire, operate machinery or carry out hot-works.

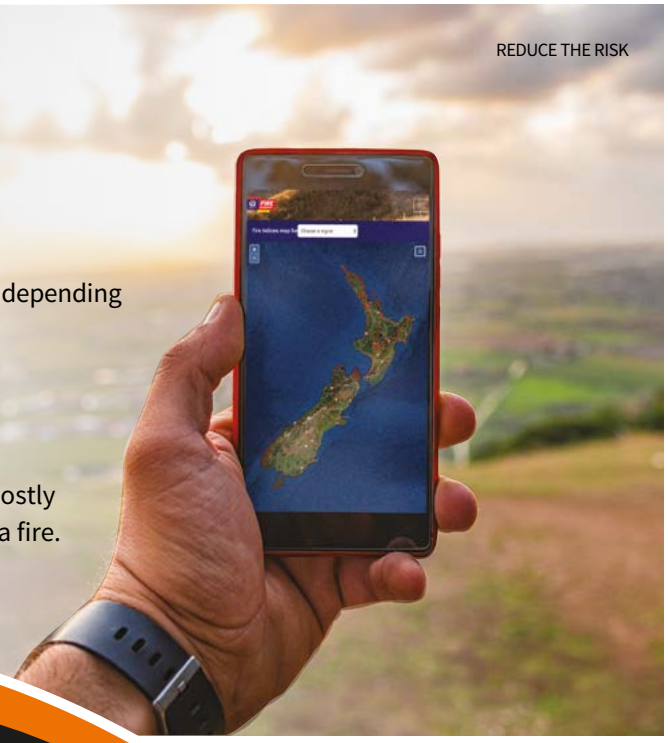
The fire danger is measured by how hot and windy it is, and has been recently. Check it more often as the risk increases.

For an open fire, remember you also need to check the fire season and find out if you need a fire permit.

FENZ sets three fire seasons, depending on the district's conditions:

- open
- prohibited
- restricted

Restricted means you will mostly likely need a permit to light a fire.



You will have seen signs like these beside roadways. They show you the immediate fire danger and guidance on carrying out work which generates heat and sparks near grass or scrub.



Encourage community involvement

Well-prepared communities can reduce the effect of wildfires. Such communities work with FENZ and other landowners in spring and early summer to identify fire-prone areas and reduce the risk of a fire starting in, or spreading to, those areas.

FENZ can also arrange the notification, sometimes ahead of time, of 'bad fire days' when temperatures are likely to be high, the wind strong and the relative humidity lower than the temperature.

There are some fire-wise actions;

- Maintain water supplies with good signposted access
- Provide tank/pump couplings or access to static water for portable pumps. During a fire you may lose mains power and electric pumps won't work
- Vehicle access needs to be at least four-metres wide and high, so fire trucks and large vehicles can get through, and then they need room to turn around to get out again
- Display your RAPID (Rural Addressing Property Identification) number at the beginning of your driveway
- Keep contact numbers by your phone
- Teach your children to dial 111 in an emergency
- Have a battery-powered radio in case of power cuts
- Regularly check your boundaries for rubbish or excessive weed growth
- Clear flammable vegetation away from buildings

Any rural stakeholder, especially a farmer or small-scale forest owner, is welcome to talk with FENZ at the beginning of each fire season.

The NZ Forest Owners Association and NZ Farm Forestry Associations' 'Forest Fire Risk Management Guidelines' provide a detailed process to reduce the risk of a wildfire.

Tips to minimise the effects of wildfire

Prepare for fire

Fires can begin when you are not around, so prepare a fire response schedule and give it to your nearest FENZ local area office and a helpful neighbour, for when you are not on site when a fire starts. The schedule will tell them –

- Who to contact
- How to access the property
- Where to find water supplies
- Hazards on the property such as weak bridges, unsuitable roads for a heavy vehicle or dead end roads

Be a good neighbour

Be an advocate in your community – educate yourself about fire prevention and promote fire permits and adherence to their conditions among your neighbours.

Supportive neighbours are especially important when the landowner is an absentee owner. You are more likely to hear about fire problems from good neighbours than from official agencies.

Don't cause a smoke nuisance to neighbours and time burn-offs for when they are not home.



Check your access points and signage

Internationally, most wildfire fatalities occur because people get trapped by fire during the first two hours of the fire getting out of control.

In New Zealand, many of our private rural roads and bridges are not constructed to the same standards as public thoroughfares. Most fire trucks are limited to well-formed roads and will not be taken onto private land unless it is safe.

It is vital that your property is clearly signed – bridge weight limits, water point access and RAPID number – so that fire fighters can to get to your property in an emergency. Make sure tracks and roads are clear for access by fire fighters.

FENZ staff can advise on signage.

Be a good housekeeper

- Remove anything flammable from under trees on forest margins, public road edges, ridgelines or property boundaries
- Prune boundary trees and take the prunings away
- Clear trees and scrub near buildings
- Keep gutters clear of leaves
- Cut dry grass under electric fences and check for arcing
- Remove flammable rubbish
- Store plenty of water nearby
- Stock up with fire extinguishers in buildings and vehicles
- Store fuel and chemicals securely and separate from other buildings

For tree operations, try to use reputable, Safetree certified, forestry contractors who follow professional standards by keeping their machinery clean and well maintained and have fire extinguishers. Check that they have appropriate safety standards and insurance cover.



Not all trees burn the same

Select low flammability trees and shrubs for shelterbelts, fuel breaks, or amenity planting close to buildings.

All plants can become a fire hazard though if they are water stressed or dead.

Fire-resistant plants have;

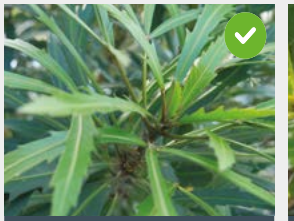
- Leaves which are moist and supple and don't ignite easily
- Not much dead wood accumulated within the plant
- Watery sap that doesn't have a strong odour

Here's some of the best to choose.

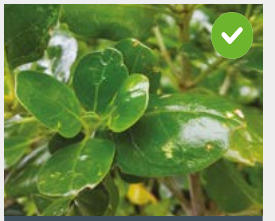
Exotics; poplars, birch, maple, willow and ash

Or natives; kotukutuku, horoeka/lancewood, five finger, karamu, raurēkau/kanono, hangehange, taupata, putaputawētā, karaka, griselinia, kawakawa/peppertree, poroporo

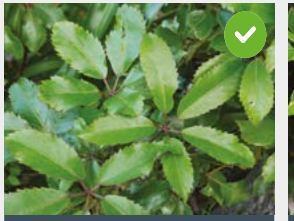
Manuka, kanuka and gorse are particularly flammable.



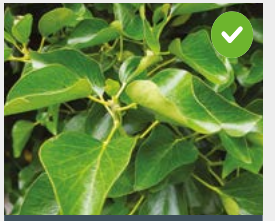
lancewood



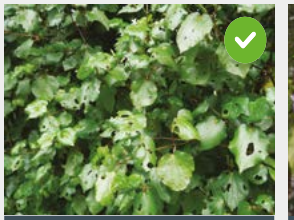
taupata



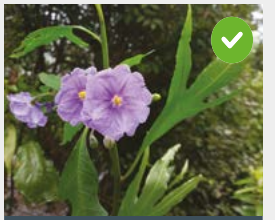
five finger



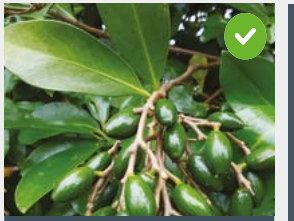
griselinia



kawakawa



poroporo



karaka

Useful link: Guide to fuel break with fire-resistant plants

Useful link: New Zealand Poplar and Willow Research Trust

If a fire does start call 111

Response

FENZ is responsible for all fire response, fire suppression and mopping up. FENZ is also responsible for training for vegetation and rural firefighting.

Action on spotting a fire

If you are a forest owner, rural contractor or witness to a fire;

- Phone 111 immediately – not a local forest company. Give clear information to the FENZ communication centre so the right fire resources are despatched
- Clearly state your address, road name and RAPID number, approximate area burnt, what is burning, what is at risk, the wind direction and strength
- Only attempt to fight the fire if it is safe to do so and you are confident you can contain it

Once you have provided this information;

- Let your neighbours know
- Move people and livestock at risk of fire or smoke
- Someone should wait at the road gate to unlock the gate if necessary and give further information and local knowledge to fire fighters

Health and Safety

Fire fighter and stakeholder safety takes priority over other fire response considerations.

Rural business operators such as farmers and forest owners, as well as FENZ, are Persons Conducting a Business or Undertaking (PCBUs) and must comply with their duties under the Health and Safety at Work Act 2015.

They must, as far as reasonably practicable, consult, co-operate with, and co-ordinate activities with each other.

They have a duty of care that people working on their land have the skills and level of training for their tasks. FENZ must make sure the health and safety requirements of owners and fire fighters are met.

If you are trained, FENZ may ask for your help to fight the fire.

If you see a fire, phone 111 immediately.

After the fire is over



Landowners should be included in any post-incident review, including health and safety.

Many rural district councils can assist landowners who have suffered from wildfires. They can find temporary accommodation, grazing for stock, and help with such things as reduced dump fees for fire-damaged items. They can also arrange community assistance packages.

Insurance

One option to help mitigate wildfire effects is to transfer the risk in the form of insurance. You can insure a forestry block for fire as well as other disasters.

When determining your sum insured don't forget to include costs such as:

- Replanting
- Repair or replacement of plantation infrastructure
- Removal of debris
- Costs of suppressing the fire

If a wildfire spreads from your operations, farm or forestry block to a neighbour's property, you could be liable for the damage the fire causes. Have a liability policy to cover this potentially high cost. Get in touch with your insurance professional for further information.





Useful links

P4 Trespass Act 1980
P4 Fire for Land Management
P4 Check it's alright before you light
P6 Hot-Works Standards
P7 Worksafe.govt.nz – electricity-hazards-from-trees-regulations
P8 NIWA fire weather
P10 FOA/FFA Fire Management Guidelines
P12 Safetree website
P13 Fuel-break planting
P13 Poplar and Willows
Victoria Country Fire – Grass Curing Guide
Fire Prevention in Northland

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