Recovery after fire

Practical steps for farmers

AGRICULTURE VICTORIA

Published by Agriculture Victoria, Department of Energy, Environment and Climate Action

8 Nicholson Street Melbourne, Victoria 3002
Telephone 136 186

Updatedd December 2024, originally published December 2020

ISSN 2205-8214 (print) ISSN 2205-8214 (online)

Authorised by the Victorian Government, Melbourne.

Disclaimer
This publication may be of assistance to you, but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

Accessibility
If you would like to receive this publication in an accessible format, such as large print or audio, please telephone 136 186. Deaf, hearing impaired or speech impaired? Call us via the National Relay Service on 133 677 or visit www. relayservice.com.au This document is also available in PDF format on the internet at: **agriculture.vic.gov.au/farm-management/emergency-management/bushfires**

Contents

Table of Contents (continued)

INTRODUCTION

Rebuilding your life and farming operations after fire is often daunting, stressful and costly. Where do you begin? How do you prioritise the seemingly endless tasks? Who can you approach to get help?

This booklet, *Recovery after fire: Practical steps for farmers*, will help you plan your recovery and get back to business as soon as possible.

Each part contains suggested actions in the critical areas of personal health and wellbeing, livestock management, water management, soil and pasture recovery, fencing and property planning, pest control and financial support.

Agriculture Victoria staff can provide advice on recovery services and programs offered by the Victorian Government and other agencies following fire incidents. In each section, there are links to additional information, including the extensive Agriculture Victoria Information Notes Series, with advice on fire recovery. These are available on the Agriculture Victoria website agriculture.vic.gov.au or through the Customer Service Centre, phone 136 186.

KEY CONTACTS

Agriculture Victoria

If you are looking for advice on recovery for your farm business, system or property, please don't hesitate to call Agriculture Victoria on 136 186.

Emergecy Recovery Victoria

Emergency Recovery Victoria can connect you with other recovery services and information provided by the Victorian Government.

Visit: **vic.gov.au/emergency-recovery-victoria**

Rural Financial Counselling Service (RFCS)

RFCS provides free financial counselling to farmers and small related businesses who are in, or at risk of, financial hardship.

Counsellors can provide referrals to other professional services including accountants, agricultural advisors, education or counselling.

Counsellors can also assist applicants to apply for financial support programs.

Phone 1300 771 741

or

Victoria West RFCS: 1300 735 578
Eastern RFCS: 1300 045 747
North East RFCS: 1300 834 775

Visit: **rfcsnetwork.com.au**

PART 1:

IMMEDIATELY AFTER FIRE

Checklist of actions after a fire

Knowing what to do first, immediately after a fire can be difficult. Below is a checklist that covers the main issues to consider:

Family

- [ ] Ensure the safety and wellbeing of yourself, family and friends
- [ ] Talk to family and friends about your experience
- [ ] Start doing a few small, safe, jobs
- [ ] Manage offers of assistance by recording names and phone numbers
- [ ] Take plenty of photos and notes for insurance and future reference
- [ ] Identify and isolate on-farm hazards such as:
  - fallen powerlines
  - asbestos contaminated sites
  - chemical storage areas
  - sheep dips and spray areas
  - lead and other heavy metal contaminated sites (batteries, treated pine etc.).

Stock

- [ ] Manage the health and welfare of your animals:
  - ensure fire affected stock are assessed by a veterinarian or Agriculture Victoria Animal Health staff
  - ensure stock that have been critically injured or have a low chance of survival are humanely euthanised
  - maintain adequate supply of food, water and shelter to livestock
  - monitor all stock on a regular basis

Water supply

- [ ] Protect your drinking water by diverting downpipes for initial flushing
- [ ] Protect your dam water by:
  - skimming off floating debris and organic matter
  - trapping ash, debris, organic matter and sediment with closely spaced steel posts, ring-lock, netting or sediment traps
  - fencing and reticulation
  - consolidating water supplies with pumps and pipe
  - de-silting dams
  - remove stock access to farm dams where water becomes putrid, looks or smells rotten or has signs of blue green algae (paint like scum on surface).

Fencing

- [ ] Mark boundary fence alignment prior to clean-up
- [ ] Seek assistance with clearing boundary fence lines
- [ ] Avoid replacing internal fencing immediately; fire offers an opportunity to re-think your farm layout. Consider:
  - patching up old fences wherever possible
  - new fence alignment or gate location/s
  - replacing fencing along land class boundaries
  - access an aerial photo plan of your farm to review your farm layout
  - contacting Agriculture Victoria staff for advice on re-fencing and whole farm planning.

Pastures

- [ ] If possible, de-stock burnt and partly burnt paddocks
- [ ] Seek outside agistment, where possible
- [ ] Consider building a stock containment area or sacrifice paddock to protect your pastures and soil
- [ ] Consider setting up a watered pasture trial plot to assess plant survival
- [ ] Access fodder for immediate livestock needs

Soils

- [ ] Create rehabilitation of firebreaks and access tracks, to minimise erosion
- [ ] Consider protecting loose, sandy soils from wind erosion with a suitable cover crop (e.g. oats), deep ripping or ridging
- [ ] Upgrade track drainage to minimise erosion.

Native vegetation

- [ ] A significant proportion of native vegetation will survive a bushfire; give it time to recover
- [ ] Watch for burning tree roots three to six months after the fire.

Weeds

- [ ] Feed stock in a containment area or sacrifice paddock to contain weeds spread from introduced feed
- [ ] Monitor areas disturbed by firefighting or recovery activities.

Rain and flooding following a bushfire

- ☐ Protect your house and other facilities from flooding with earthen banks or sand bags
- ☐ Install closely spaced steel posts upstream of culverts and stream crossings to trap debris
- ☐ Regularly check your dam spillways and banks for damage
- ☐ Regularly check erosion control structures for damage.

BUSHFIRE AFTERMATH – SAFETY TIPS:

- ☐ Check with your local emergency services that it is safe to return to your property after a bushfire.
- ☐ Wear protective clothing before entering your property after a bushfire.
- ☐ Where possible, try to avoid taking children onto fire-damaged properties. If you do, make sure they remain protected at all times.
- ☐ Hazardous wastes, such as asbestos materials and burnt CCA-treated timber, need special care during handling and disposal.
- ☐ Be aware and avoid hazardous trees and roots. It may be necessary to have them assessed by a professional

PERSONAL PROTECTIVE EQUIPMENT (PPE) AND KITS

Personal protective kits are available for people returning to properties affected by fire. They are available from your local council or an emergency recovery centre, along with additional masks, disposable coveralls and gloves.

For advice on how to utilise your personal protective kit after a fire visit: healthtranslations.vic.gov.au/resources/after-a-fire-using-your-personal-protective-kit

First steps

Monitoring assets and hazards

It is important to continue to patrol around your home and property buildings for up to six hours (and sometimes longer) after the main fire front has passed through, as it is during this time that many buildings burn down due to embers. There is also the risk of vegetation reigniting from embers or smoldering fuel sources. Other hazards to monitor include falling branches and trees, holes in the ground, fallen powerlines and sites contaminated with asbestos, heavy metals or farm chemicals.

To read more, visit **agriculture.vic.gov.au/farm-management/emergency-management/bushfires/what-to-do-after-a-bushfire/recover-assets-and-check-hazards**

Power supply

If powerlines have fallen, keep clear and keep others away.
The powerlines may still be live. Do not attempt to remove or prune trees which have fallen on powerlines yourself. You should call your local electricity distributor on the faults and emergencies number on your most recent electricity bill.

If you've lost power, contact your electricity distribution company on the faults and emergencies number on your most recent electricity bill.

For dairies, power is critical for milking equipment and to cool milk vats, and loss of power can lead to issues with mastitis in the herd due to missed milkings, and environmental issues around milk dumping.

To minimise future production losses, milking should be re-established at least once daily after 48 hours. Dairy farmers should contact their milk company as soon as possible for support.

Under the *Environment Protection Act 2018*, milk must not be discharged into waterways. If milk cannot be collected by tanker, it will need to be disposed of or used on farm. There are several suitable options discussed in the following information note: **Emergency disposal of milk, visit: agriculture.vic.gov.au/livestock-and-animals/dairy/managing-effluent/emergency-disposal-of-milk**

The Environment Protection Authority (EPA) has guidance to help dairy farms comply with relevant laws regarding liquid waste. For more information, visit **epa.vic.gov.au/for-business/find-a-topic/about-dairy-farm-effluent**

For more information visit: Disposal of bushfire waste, visit: **epa.vic.gov.au/about-epa/publications/1738**

Generators

Care needs to be taken with the use of temporary energy generators. The leads from the generator to electrical appliances must be as short as possible and in good condition. Temporary generators must not be installed inside buildings because of the dangers of carbon monoxide poisoning from engine exhausts.

It is recommended that you seek help from a licensed electrician to connect an energy generator. If electricity supplies have not been restored to homes for any reason, property owners must not connect permanent generators or perform other electrical work around the home. Such practice is both illegal and dangerous – this work can only be carried out by licensed electricians.

Energy Safe Victoria advises people to take the following precautions if using a generator:

- Correctly connect the generator. Make sure you have the appropriate power board and leads to fit the generator you are using, and make sure that they are in good working order
- Keep your generator outside. Generators in enclosed areas such as homes, sheds or caravans, even with windows open, can cause carbon monoxide poisoning which can result in death
- Do not overload your generator. This can cause damage to appliances feeding off the generator. If your generator is not big enough to power all appliances, appliances should be rotated
- Place your generator in a location where the exhaust fumes do not come into contact with any combustible material
- Always plug appliances into the generator using appropriate power boards and leads. Never plug the generator into the power outlets as this has a high risk of causing electrocution
- Take care when refuelling your generator as it is likely to be hot. Make sure the generator is off and has cooled before refuelling as petrol spilled on hot engine parts can ignite.

For further information, contact Energy Safe Victoria (ESV) on

Phone: (03) 9203 9700
Phone: 1800 800 158
Web: **energysafe.vic.gov.au**

Looking after yourself and others

During an emergency people often move into a survival state to get through the incident, using up considerable emotional reserves. In the days after the fire, many people have a targeted focus on recovery and work hard for long periods, putting aside essential needs including food, water and sleep. It's important to recognise that after the state of high alert often experienced during and immediately after the fire, a low often follows. It's therefore important to be aware of the physical, mental and emotional symptoms of stress in yourself and those around you.

Symptoms of stress

- Difficulty thinking clearly, concentrating and remembering details
- Not speaking clearly, slurring words and forgetting names
- Body tension, stress and tightness in muscles
- Headaches, trembling, nausea, aches and pains
- Tired but unable to sleep
- Lack of appetite and a desire for stimulants such as alcohol, tobacco or coffee
- Feeling overwhelmed and emotional, experiencing waves of anger, or worry
- Feeling irritable, restless and unable to relax or keep still
- Cannot feel happiness, enjoyment or affection for loved ones
- Feeling moody, gloomy, sad or hopeless
- Blaming others and reacting out of proportion to the situation
- Changed relationships, avoiding contact or, alternatively, always wanting others around.

Looking after yourself

- Find someone to talk to; discuss your experience and feelings
- Talk to your partner and children, they will also need support
- Visit and chat to other farmers
- Focus on doing straightforward tasks such as feeding livestock
- Get away from the farm for a few hours or a day
- Try to stick to family routines; stop for meals, take regular breaks
- Try to attend local recovery events.

For 24-hour telephone counselling throughout Victoria:
Lifeline phone 131 114

The Department of Health Victoria (DoH) contacts during office hours:

Barwon-South Western	(03) 4215 4000
Gippsland	(03) 5173 8000
Grampians	(03) 5320 3700 or 1300 988 908
Oven Murray	(03) 6058 4444
Loddon – Mallee	(03) 5454 6000

Offers of help

During the time immediately after the fire you may be visited by many individuals, organisations, government agencies and networks to offer support or collect impact data.

The generosity of individuals and groups in the aftermath of fires can often be overwhelming.

It is recommended you keep a notebook to record names and phone numbers of individuals and organisations, to help you keep track of support provided and for future reference.

You may be reluctant to take advantage of recovery services and offers of help; maybe because you are overwhelmed or you think others are worse off and in greater need of assistance.

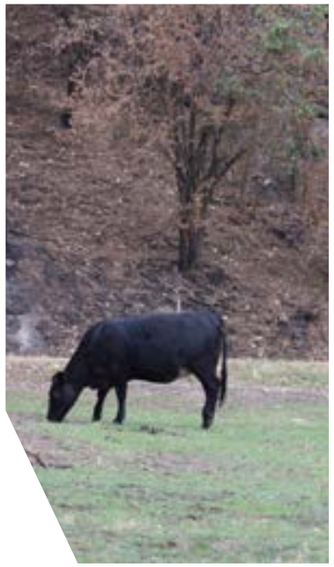
However, when you have lost significant assets or experienced trauma during an incident, the Victorian Government, and other organisations recognise this and want to support your recovery.

Contact your local Agriculture Victoria office or phone 136 186 for assistance. Alternatively, the Municipal Recovery Centre, run by your local Shire Council, would also be aware of available support, such as donations from the community and grants.

Other useful information notes and websites:

Emergency, crisis and support services: betterhealth.vic.gov.au/servicesandsupport/emergency-crisis-and-support-services

Livestock



Assessing and treating livestock

Initial rapid assessment

After major fires Agriculture Victoria teams may contact or visit impacted properties to provide emergency recovery services to landholders and complete a disaster and damage assessment (once the fire ground is declared safe to enter).

In some cases, an initial rapid assessment can be conducted over the phone with landholders to establish the extent of the damage and support required including:

- The location, boundaries and extent of the burnt area
- The number of private properties burnt
- An initial estimate of the number of livestock burnt.

Detailed agriculture impact assessment

Agriculture Victoria staff will be assigned to visit your property as soon as possible to assist with a more detailed assessment of impact and damage. Agriculture Victoria animal health staff will assess the condition of livestock and, if required, carry out or oversee the humane destruction of stock with severe injuries and those with a poor chance of recovery.

Agriculture Victoria animal health staff will assist farmers in categorising the affected stock as:

- Requiring immediate destruction
- Requiring emergency salvage slaughter
- Needing treatment and re-assessment
- No injury.

The Prevention of Cruelty to Animals Act (1986) removes the option of doing nothing. Sick or injured stock must be treated or destroyed.

Animal owners can contact Agriculture Victoria for assistance with affected stock, or can engage their private vet. To contact Agriculture Victoria, phone 136 186.

Humane destruction of burnt livestock

The nature and extent of burns to livestock can vary widely between animals due to the nature of the fire and degree of exposure. The instinct of individual animals and groups an also affect the extent and distribution of burns. Situations that warrant immediate destruction include:

- Animals unable to stand up or walk due to injuries or burns sustained during the fire
- Animals suffering from severe smoke or flame inhalation resulting in acute respiratory distress (as observed by facial burns, laboured breathing, frothing at the mouth and nose, and coughing)
- Stock with extensive burns to facial tissues and to the legs with swelling and a dry leathery appearance of the skin (severe burns to more than 15 per cent of the body surface).

If animals need to be destroyed in the paddock before Agriculture Victoria assessment teams arrive, make sure you have a witness present and contact your insurance company as soon as practicable to avoid the risk of voiding insurance cover.

The land manager is responsible for carcass disposal. Agriculture Victoria provides advice on disposal needs regarding diseased livestock.

Assessing salvageable livestock

Agriculture Victoria staff consider several factors prior to advising on the options of nursing and treatment, emergency salvage slaughter or humane destruction.

These factors include:

- Available facilities (yards and sheds) for nursing and treating livestock
- Whether the type of country permits intensive care of livestock (hard rocky ground versus soft unburned areas)
- The quality and quantity of feed and water available, and whether agistment can be organised
- The general body condition of the livestock
- The age of livestock and costs from the treatment option
- Concurrent illnesses that may be affecting the livestock
- Stage of pregnancy
- The wellbeing of the landholders and managers in making informed decisions as to the best welfare and outcome for the livestock.

Salvage slaughter

Emergency salvage slaughter must be considered early before swelling of limbs or acute lameness occurs. Animals with quite severe burns may recover with intensive veterinary treatment and nursing, but this should only be attempted if the animals are of great sentimental or economic value. This can be time consuming, extremely costly and ultimately unrewarding. Animals likely to survive will:

- Be mobile
- Have only localised skin damage on legs
- Have all or most hooves still intact
- Have only superficial burns to face, lips and eyelids
- Have only superficial burns to the anus, vulva, udder, teats or pizzle.

Managing surviving stock

Livestock likely to survive should be placed in a paddock that has soft soil (or sand), appropriate shelter and shade, good quality feed and water. Many animals will not be hungry for several days and may lose condition before starting to recover.

Care needs to be taken to ensure livestock are not exposed to hot post-fire ground which may cause extensive injury to the hooves. This will result in acute lameness and subsequent destruction. You need paddocks which are not burnt to manage surviving livestock.

Continually assess animals with injuries and be aware that even minor burns may have long-term effects on surviving stock. Pregnant stock with minor burns to the teats are often later found to have occlusion of the teat canal and are unable to be milked or suckle calves or lambs.

Moderate burns to the hooves, legs, bare areas, lips and face may cause animals to die if they don't receive appropriate veterinary treatment. The skin of the lower leg will appear dry, scorched and leathery. These animals are likely to suffer from internal damage which can include pneumonia and lung abscesses. Shock may also kill animals early following the fire.

The following information notes are available on the Agriculture Victoria website:

Assessing sheep after a bushfire. Sheep are common victims of bushfires in Victoria. Some sheep will need to be destroyed immediately: **agriculture.vic.gov.au/farm-management/emergency-management/bushfires/what-to-do-after-a-bushfire/assessing-sheep-after-a-bushfire**

Assessing cattle after a bushfire. It's important to assess livestock as soon as possible after a fire, treat and monitor the injured and humanely destroy those that are suffering: **agriculture.vic.gov.au/farm-management/emergency-management/bushfires/what-to-do-after-a-bushfire/assessing-cattle-after-a-bushfire**

Disposing of carcasses after bushfire, flood or drought. Bushfire can result in large numbers of animal carcasses requiring disposal. There are options for livestock producers for carcass disposal after a bushfire: **agriculture.vic.gov.au/farm-management/emergency-management/bushfires/what-to-do-after-a-bushfire/disposing-of-carcasses-after-bushfire-flood-or-drought**

Horses affected by bushfires. Bushfires can have significant immediate and long-term effects on a horse's health, safety, environment and diet: **agriculture.vic.gov.au/livestock-and-animals/horses/health-and-welfare/assessing-horses-after-bushfires**

Property Identification Codes (PICs)

Property Identification Codes are essential for identifying where livestock are kept and the person who is caring for them. As well as being used to assist in disease control, traceability and food safety and support market access, PICs are used for locating properties and owners that have livestock when emergency events such as fires occur.

It is vital that Agriculture Victoria can make contact with owners or managers of all agricultural properties in the fire-affected area to address any immediate animal welfare concerns, assess asset losses and guide other relief services to sites of high need.

Having an up to date PIC is crucial in enabling Agriculture Victoria to carry out this work effectively.

If you own livestock and don't have a PIC or if you need to update your PIC details, contact the Agriculture Victoria National Livestock Identification System (NLIS) Helpline, phone 1800 678 779 or visit: **pic.agriculture.vic.gov.au**

Movement of livestock impacted by fire

Under normal trading conditions, livestock owners are required to correctly identify cattle, sheep or goats with NLIS tags prior to the livestock leaving their property. During emergencies such as fires, where animals may need to be moved urgently for safety, treatment or agistment, this may not always be practical or possible.

Agriculture Victoria is available for advice on traceability requirements for these livestock movements such as permits to move untagged livestock or whether post breeder tags should be applied. Wandering livestock should be reported to your local shire council.

For advise or assistance with movement requirements, permits or possible exemptions contact Agriculture Victoria via: **nlis.victoria@agriculture.vic.gov.au**

Phone Agriculture Victoria NLIS Helpline, 1800 678 779.

Feed budgeting

No two situations of feed availability are the same. Decisions about feed will need to be reviewed over time. Options of managing stock include:

- Agistment
- Selling livestock
- Feeding livvestock.

If accepting donated feed, consider establishing a sacrifice paddock or stock containment area to reduce the spread of any potential weeds. The quality of feed may vary, and this will have an impact on the amount required by stock. If possible, have the feed tested to ensure a clear understanding of the nutritional value of the feed.

Agistment

Agistment can be a cheap solution for feeding stock, if available. Agisted animals may do well on good quality feed and any animals left at home will have less competition for feed. Before agisting, there are certain things that you should consider while inspecting the agistment property:

- Is fencing secure and stock handling facilities are available.
- Is there an adequate supply of good quality feed and ideally, is the agistment close to markets (so you do not have to bring agisted stock back home).

Most agistment will be snapped up early, particularly if the fire is widespread, so this decision needs to be made swiftly.

A widely used form of agistment is to send stock to a commercial feedlot that finishes cattle or lambs for slaughter. While expensive, this may be offset by the sale of finished livestock.

Selling livestock

Sale of stock provides an immediate cash flow, and reduces pressure on available feed. Timing of the sale and the type and number of stock to be sold are the crucial management decisions. Inevitably, after large fires, there is a period of intense selling with large saleyard yardings and possibly reduced prices. As much as possible plan your selling strategy to avoid such buyers' markets.

When selling stock, its recommended to sell the less productive animals, and retain your prime breeding stock where possible. The decision to sell needs to be made quickly before the condition of the stock deteriorates. Animals in backward store condition should not be consigned to a saleyard. Consider direct consignment to an abattoir.

Feeding livestock

If you intend to feed your stock, carefully consider if you have the facilities, water and finances available to sustain this, especially if feed prices are at a premium. If feeding stock is an option, Agriculture Victoria staff can assist with developing a feed budget. This identifies the amount and quality of feed required for the number and type of stock and the length of time feeding will be required.

Feeding requires constant attention, so you need to consider future commitments and priorities such as cropping or shearing. Agriculture Victoria's feeding guides; *Drought Feeding and Management of Sheep and Drought Feeding and Management of Beef Cattle* can be found at: **feedinglivestock.vic.gov.au**

The following information notes are available on the Agriculture Victoria website:

Agriculture Victoria's Managing Livestock. Bushfire factsheets and resources. Information and resources to help agricultural communities affected by bushfires: **agriculture.vic.gov.au/farm-management/emergency-management/bushfires/bushfire-factsheets-and-resources**

Feed requirements of horses. A practical guide to help you create a feed budget, estimate how much feed you will need and the cost to feed horses: **agriculture.vic.gov.au/livestock-and-animals/horses/health-and-welfare/feed-requirements-of-horses**

Other useful information notes and websites:

NSW Department of Primary Industries (DPI) Drought feeding calculator app. The DPI Drought and Supplementary Feed Calculator app is free to assist sheep and cattle producers to develop feed rations during drought: **dpi.nsw.gov.au/animals-and-livestock/nutrition/feeding-practices/drought-and-supplementary-feed-calculator**

Dairy Australia Feed Budgeting Tool. Dairy Australia's Feed Budgeting Spreadsheet tool assists farmers to calculate the amount of bought-in feed required, using information such as herd size, grazing area, pasture type and growth rates and forage inputs. For more information, visit: **dairyaustralia.com.au/resource-repository/2020/07/09/feed-budgeting-tool**

Stock containment areas

Grazing paddocks after a bushfire can result in significant damage to pastures, soil and water supplies. Newly emerging pastures can be destroyed, soils exposed to erosion and dams polluted from increased sediment loads.

Confining your stock to a sacrifice paddock or stock containment area can protect the rest of your farm and provide an efficient and effective way to feed, water and care for your stock.

A sacrifice paddock, or temporary stock containment area, needs to be relatively small, stock proof, close to your house and have suitable feeding and watering facilities.

Permanent stock containment areas are used by many farmers across Victoria to manage stock during droughts, fires and floods. A permanent stock containment area is a carefully selected and designed facility to intensively hold, feed and water livestock for short periods of time.

Ideally a stock containment area should meet the following design requirements:

- Have pens approximately 50 metre x 50 metre, each pen holding no more than 500 sheep or 160 cattle
- Be located on gently sloping, well-drained sites with stable clay-based soils
- Be sited downwind of houses, close to stock handling facilities but well away from waterways and dams
- Pens should be constructed from permanent, stock-proof materials, and be sited across the slope to improve drainage and minimise runoff
- Include existing trees (that can be guarded) to provide shelter and shade, or ensure provision is made for establishing shelterbelts or shaded areas (using shade cloth or an alternative product)
- The inclusion of a permanent feeding area and troughs can make feeding more efficient and reduce the incidence of shy feeders
- Stock have vital access to an ample supply of fresh, clean water.

Ongoing observation of the stock in containment areas is necessary to assess feeding patterns and adaption to feed rations. Some sheep and lambs may not adapt well to the containment area, so monitoring is essential to ensure they are all accessing feed and water.

Therefore:

- All livestock must be inspected as least once daily, to monitor body weight or condition scores to detect animals not suited to the ration or behavioral stress of the containment area (these stock are to be promptly removed as required)
- Any sick or injured livestock must be treated or euthanased immediately
- Dead livestock must be removed immediately from the area
- Livestock should be handled carefully to minimise stress
- Unusual deaths or disease symptoms should be reported immediately to Agriculture Victoria or your local vet.

A good understanding of intensive stock management, feeding and disease control is critical to the success of a stock containment area system and in some cases, a planning permit may be required.

Animal industries planning reforms came into effect in 2018. To read more about these planning reforms and access information and tools to help in understanding agricultural land use planning in Victoria visit: **agriculture.vic.gov.au/farm-management/planning-and-farm-development**

Agriculture Victoria Planning and Advisory Services

The Advisory Service consists of a small team of advisors with specialist knowledge of Victorian agricultural farming systems and planning regulation to assist council planners and landholders to navigate the planning permit application process for agricultural developments.

The Advisory Service provides advice on agriculture land use planning for developments across major agricultural industries including pigs, goats, dairy (cattle, sheep, goat and camel), feedlots (cattle, sheep and goat), poultry (meat, eggs and hatchery), horticulture and grains. It can also provide advice on related land uses, including rural industry and rural workers accommodation.

Contact the Advisory Service

If you would like to contact the Advisory Service, please send your enquiry via email to **agvic.planning@agriculture.vic.gov.au**

Navigating Farm Developments (NFD)

This web-based geospatial decision-support platform helps farmers and advisors navigate through regulatory frameworks to fast-track farm infrastructure development projects. It enables farmers to efficiently navigate planning and permit requirements for their proposed farm infrastructure investment in dairy, beef, sheep, poultry and pigs.

Visit the Navigating Farm Developments tool at: **developments.agriculture.vic.gov.au/NFD/index.**

It is recommended you check with Agriculture Victoria staff or a local council Planning Officer before commencing construction.

The following information notes are available on the Agriculture Victoria website:

The **Drought feeding and management of sheep** and **Drought feeding and management of beef cattle guides** can be found at: **feedinglivestock.vic.gov.au/**

Other useful information:

Agriculture Victoria's Managing Livestock. Bushfire factsheets and resources. Information and resources to help agricultural communities affected by bushfires: **agriculture.vic.gov.au/farm-management/emergency-management/bushfires/bushfire-factsheets-and-resources**

Stock Containment areas for emergencies. A stock containment area is a carefully selected part of the property that is set up to hold, feed and water core farm-livestock during adverse weather periods: **agriculture.vic.gov.au/farm-management/water/managing-dams/water-supply-in-stock-containment-areas**

Water supply in stock containment areas. An endless supply of good quality water is vital to maintain stock condition, minimise the risk of disease and reduce stress: **agriculture.vic.gov.au/farm-management/water/managing-dams/water-supply-in-stock-containment-areas**

Planning requirements for feedlots. Cattle feedlots of less than 50 head need to meet certain requirements or be assessed under the Victorian Code for Cattle Feedlots: **agriculture.vic.gov.au/farm-management/planning-and-farm-development/information-for-planners-and-applicants/cattle-feedlot**

Farm water

Good quality water can be a scarce resource during and after a bushfire. Paddock dams are often heavily contaminated with wind-borne materials such as ash, manure, leaves and soil. Roofs and tanks can become contaminated with similar materials, along with firefighting chemicals such as foam and retardant. Summer thunderstorms and heavy rain in autumn and spring can result in flooding, sheet erosion and the movement of large quantities of ash, manure, branches, leaves and soil into dams, rivers, creeks and streams.

Ash (from natural materials) has little impact on water quality, however the remaining materials (manure, branches, leaves and soil) can quickly sink to the bottom of a dam, providing a source of food for algae and bacteria, resulting in the water going rotten and becoming unfit for stock use. In more severe cases, dams can be partly or completely filled with silt, sand, gravel, ash and a mix of plant-based materials.

An ample supply of good quality water is critical for stock health and production. Good quality water should look clear and not have any offensive smells, be as cool as possible and have a salt level less than 6,000 µ/cm (EC units).

In hot weather, sheep can consume up to 10 litres/head/day, ewes with lambs 14 litres/head/day and cattle 112 litres/head/day. An average 500-kilogram horse (approximately 15 hands high) consumes about 30-50 litres a day, and possibly more in hot weather. A mare with foal at foot will require more due to the demands of feeding her offspring.

Protecting water supplies is a high priority for landholders affected by fire. Recommended strategies include:

- Diverting or blocking downpipes to avoid contamination of drinking water
- Washing down contaminated roofs and guttering
- Dragging chainmesh suspended on floats across dams to remove floating debris and ash
- Removing stock if water becomes putrid, looks or smells rotten or shows signs of blue-green algae (bright blue-green paint-like scum on water surface)
- Trapping ash, debris, organic matter and sediment using wire netting supported with ringlock and closely spaced steel posts
- Construction of a straw bale sediment trap. This involves a line of straw bales tightly butted together and held in place with wooden pegs or steel posts
- Trapping fine debris and sediment in small catchments using commercial silt fencing. Such fencing is highly effective in trapping finer debris and sediment but is not normally suitable for areas with a concentrated flow of water such as across a drainage line above a dam.
- Where suitable, excavating a shallow pit upstream of your dam to trap sediment. Excavation of such a pit may require approval by your local council, water authority or Catchment Management Authority (CMA)
- Consolidating remaining water supplies into dams or tanks
- Fencing off dams to reduce further contamination from wind and stock.
- De-silting dams.

Alternatively, landholders may consider reducing stock numbers, carting water onto the farm, installing a bore or setting up a permanent reticulating water.

- In the event of a fire (regardless of where it starts) if water is taken from domestic tanks and stock or irrigation dams for firefighting purposes, water needed for essential use will be replaced (quantity taken) when requested by the landholder. Contact your local Country Fire Authority (CFA) or Emergency Management Victoria (EMV).
- For essential water recovery information, see Part 2 – Asset and Pest Control, Essential Water Replacement.

Emergency stock water supply

Essential water for agriculture and domestic taken by DEECA and CFA from private landholders during bushfire suppression activities will be replaced like for like. This will be arranged by fire management authorities.

Following fires, emergency stock water can be sourced from emergency water supply points (EWSPs) across Victoria. The EWSPs are managed by various state agencies, including local councils and urban and rural water corporations. Their locations can be found on the DEECA website under Emergency Water Supply Points.

For more information visit: **water.vic.gov.au/for-agriculture-and-industry/emergency-water-supply-points**

The following information notes are available on the Agriculture Victoria website:

Water quality for farm water supplies. An adequate supply of good quality water is a vital element of most farming enterprises. It is essential for: maintaining stock health, maximising animal and plant production, providing a good supply for house and garden use: **agriculture.vic.gov.au/farm-management/water/managing-dams/water-quality-for-farm-water-supplies**

Managing dams. In appropriate environments farm dams are a good way of storing water, however they need to be properly constructed and maintained: **agriculture.vic.gov.au/farm-management/water/managing-dams**

Maintaining your farm dam. An overview of the different aspects of the farm dam that need to be regularly inspected and maintained: **agriculture.vic.gov.au/farm-management/water/managing-dams/maintaining-your-farm-dam**

Organic pollution in farm dams. Learn how organic pollution in dams can affect stock and how to correct the problem: **agriculture.vic.gov.au/farm-management/water/managing-dams/organic-pollution-in-farm-dams**

How much water is in my dam? In dry seasons, and with limited water availability, it is important to know how much water is in your dam to assist with water budgeting: **agriculture.vic.gov.au/farm-management/water/farm-water-solutions/how-much-water-is-in-my-dam**

Water quality for farm water supplies. An adequate supply of good quality water is a vital element of most farming enterprises. The quality of water also determines its potential use: **agriculture.vic.gov.au/farm-management/water/managing-dams/water-quality-for-farm-water-supplies**

Blue green algae problems in dams. Minimising algal growth in farm dams: **agriculture.vic.gov.au/farm-management/water/managing-dams/minimising-algal-growth-in-farm-dams**

Farm water management. Water is critical to the success of any farming enterprise, but is often difficult to manage **agriculture.vic.gov.au/farm-management/land-and-pasture-management/farm-water-management**

Water quality in tanks, bores and dams. Private drinking water supplies from rainwater tanks, bores, and dams need careful maintenance to prevent contamination and ensure safer: betterhealth.vic.gov.au/health/healthyliving/Water-quality-in-tanks-bores-and-dams

Bushfires and water tanks. After a bushfire, water in tanks can become contaminated with ash, debris, and chemicals, making it unsafe for drinking or food preparation. farmerhealth.org.au/2014/03/21/bushfires-water-tanks

Orchards and vineyards

After a fire affects a vineyard, you will need to assess each individual block to determine if they can be rehabilitated or if they need replacing.

Other than activating your fire plan, there is little you can do to protect orchards and vineyards if they are in the direct line of fire. It is however important to assess your orchards and vineyards as soon as possible following a fire. A post-fire assessment needs to include the following steps:

- Determine if each individual block is worth saving based on the extent of damage and signs of regrowth
- Check if damaged trees or vines still have a healthy cambium (layer of tissue beneath outer bark)
- If cambium is still alive on fruit trees and trees show signs of life, sunburn protection of the trunk and limbs is essential
- If a block is judged viable, repair or replace the irrigation system and irrigate as soon as possible
- Remove any remaining fruit to prevent pest and disease build-up and unwanted stress on the trees
- For vines where leaves are partially or totally scorched, remove the crop to eliminate competition for water, carbohydrates and nutrients
- Withhold fertiliser until there is sufficient growth to utilise it (do not force growth with extra fertiliser)
- Do not prune out damaged limbs until regrowth has been established.

Smoke taint in wine grapes

If wine grapes have been exposed to smoke:

- Have samples tested for smoke taint compounds at an accredited laboratory to determine best management options for the grapes
- Hand harvest the grapes to minimise the risk during the winemaking process of contamination with smoke taint compounds in leaf and woody tissue.

Other useful information notes and websites:

Effect of smoke in grape and wine production: Smoke taint research. Fact sheets developed from a comprehensive research and development program to improve the wine industry's knowledge of how smoke impacts wine: **hin.com.au/current-initiatives/smoke-taint-research**

Smoke taint – practical management options for grapegrowers and winemakers: awri.com.au/wp-content/uploads/2012/04/smoke-taint-practical-management-options.pdf

The following information notes are available on the Agriculture Victoria website:

Recovery from fire damage in fruit orchards. Tips on managing recovery from fire damage in fruit orchards: **agriculture.vic.gov.au/crops-and-horticulture/fruit-and-nuts/orchard-management/recovery-from-fire-damage-in-fruit-orchards**

Recovery from fire damaged olive groves. Although a fire-affected olive grove can look devastated, trees could have the potential to recover and be productive again if managed well: **agriculture.vic.gov.au/crops-and-horticulture/fruit-and-nuts/orchard-management/recovery-from-fire-damage-in-olive-groves**

Recovery from fire damage in fruit orchards. Tips on managing recovery from fire damage in fruit orchards: **agriculture.vic.gov.au/crops-and-horticulture/fruit-and-nuts/orchard-management/recovery-from-fire-damage-in-fruit-orchards**

Recovery from fire damage in rubus crops. Tips on managing recovery from fire damage in rubus (raspberry and hybrid blackberry) crops: **agriculture.vic.gov.au/crops-and-horticulture/fruit-and-nuts/berries/recovery-from-fire-damage-in-rubus-crops**

Recovery from fire damage in blueberry orchards. Tips on managing recovery from fire damage in blueberry orchards: **agriculture.vic.gov.au/crops-and-horticulture/fruit-and-nuts/berries/recovery-from-fire-damage-in-blueberry-orchards**

Beekeepers

Agriculture Victoria staff can assist bushfire affected beekeepers to assess fire damage to their beehives and provide support during recovery. For more information visit: agriculture.vic.gov.au/livestock-and-animals/honey-bees/health-and-welfare/caring-for-apiaries-affected-by-smoke-and-heat

Finance and insurance

It's important to notify your insurance broker as soon as possible after a fire.

Steps to financial recovery

It is often difficult after an event such as a bushfire to take time to focus on financial planning for your business. However, taking time to formulate a plan will, in the long run, aid faster business recovery. The following are the first steps you can take in formulating your plan.

Step 1: Ask for help

The Rural Financial Counselling Service provides a free and independent service to farmers and small related businesses who are in, or at risk of, financial hardship. Counsellors provide case managed support to help you understand your financial position, develop and analyse options and support you to implement your plan to improve your financial situation. They can help you negotiate with lenders, access government assistance schemes and provide referrals to other professional services including accountants, agricultural advisors, education or counselling.

Rural financial counsellors usually live locally and can visit you on farm to provide you with a confidential service.

For information on your local rural financial counsellor or for an appointment phone 1300 771 741 or visit **rfcsnetwork.com.au/**

Step 2: Where are you now?

Assess your current business position by estimating the value of all assets and liabilities. A Rural Financial Counsellor can assist with this process.

Assets include:

- Land: Write down each parcel of land, who owns it and what the current market value is likely to be
- Livestock: List each class of stock and their likely current market value
- Produce on hand: List all produce currently on hand including hay, grain and unsold wool at their likely value
- Plant and machinery: List all plant and machinery you own and its current market value (as a rough evaluation, consider what you would pay for it at a clearing sale)
- Vehicles: List each vehicle and its likely current market value
- List the value of your bank accounts, investments and shares (accounts that are in credit)
- List the current value of any superannuation funds and the surrender value of life insurance
- List a description and value of other real estate and valuable possessions (for example jewellery or antique furniture).

Total value of all assets = ...

Liabilities include:

- Current balance of your overdraft (if in debit)
- Term loans (and what they are secured against)
- Hire purchases or machinery loans
- Other loans (for example family loans)
- Credit cards (if in debit)
- Unsecured creditors (all outstanding accounts).

Total value of all liabilities = ...

Net value of your assets = assets LESS liabilities.

It can be useful to do this exercise at 30 June each year to see how your position is changing over time.

Step 3: Where are you likely to be in the next 12 months?

Assess your likely future financial position and write down an annual cash flow budget for the next 12 months. A Rural Financial Counsellor can assist with this process.

Farm income: List the likely sources of income (if no changes are made) from each of your enterprises over the next 12 months. For example, categories may include wool, lambs, cull sheep, cattle, grain (wheat, barley, oats and canola etc) and diesel rebate.

Other income: List any off-farm income including dividends and interest payments, contracting income, and other household salaries.

Farm expenses: Split into enterprise, and overhead costs. Enterprise costs include costs associated with each enterprise, such as animal health, shearing, contract services, fodder and freight. Overhead costs include costs that are always there regardless of the type of enterprise you are running, such as rates, insurance, accountant, administration, fuel, electricity and telephone.

Subtract the expenses from the income. This is your farm operating profit or loss. From this you then deduct (or add on) the interest and principal repayments from your profit (or loss). Then list and add on any other off farm income, such as wages, Centrelink and non-farm investment income.

Estimate your personal expenditure for the year and your personal tax liability and deduct from the figure. This will then give you your net cash flow for the year. At this point a more detailed month-by-month cash flow budget could be useful to track the balance of your operating account to make sure you will not exceed the overdraft limit.

If your cash flow is a positive amount you have the discretion to decide to spend or save the excess. If it is a negative amount, you must answer these questions:

- Will you need to borrow more money - is your overdraft adequate?
- Or will you need to make other changes to your farming or personal circumstances?

Step 4: Where do you want to be?

This step will give you the basic information to start working out a plan for your business recovery. This will include determining your personal and farming priorities and goals and looking at options to meet your needs. Rural financial counsellors can assist farmers to acquire the necessary basic financial information and then work out a plan for the future. This may include seeking further assistance from other professionals including consultants, agronomists, accountants and solicitors. In any plan for the future, you should always consider a succession plan for your farm.

Insurance claims

Notify your insurer or your insurance broker as soon as you can after an incident. It's important your insurer is made aware of your decisions regarding the destruction of burnt livestock, any major repairs or any major clean-up of assets. It is recommended you take photographs of damaged assets and livestock to support any insurance claims.

It is important, but often difficult under stress, to remember all of your lost assets (checklist available in Part Three – prepare for next season). However, most insurance companies understand this and are flexible enough to allow you to reopen and amend your claim case.

Make the claim as best you can and as clearly as you can. You may be feeling shock and grief at this time, which may make it difficult to understand information the insurer has sent you. Ask family, friends, support agencies and insurance representatives for help lodge your insurance claim as soon as possible.

Your insurer may ask for other information. If they do not accept that you cannot provide this information (i.e. you are asked for documents which are lost or destroyed), you should seek legal advice.

The insurer may send out an assessor or an adjuster to examine your claim. The assessor may interview you. If you feel you are being treated unfairly by the assessor you should get advice or help. For example, you may want to ask for an interpreter or a friend to sit in on any interviews. If the assessor wants you to drop your claim, you should get legal advice urgently.

Do not sign any documents until you understand what they mean. You should get legal advice about documents your insurer asks you to sign, such as an insurance release form.

If you receive a payout but are unable to spend it on recovery work before the end of the financial year, it will be treated as income and taxed accordingly. Therefore, it is advisable to talk to your accountant about Farm Management Deposits (FMDs) or other solutions.

Disaster Legal Help Victoria

Disaster Legal Help Victoria provides free legal advice, assistance and referrals to people affected by a disaster. If you have been affected by the recent bushfires, they can help with issues such as insurance claims, tenancy disputes, debt and other financial problems.

For assistance, please phone Disaster Legal Help Victoria's free helpline on 1800 113 432. This phone line is open throughout the year between 8am and 6pm, Monday to Friday.

PART 2:

FARM ASSET RECOVERY AND PEST CONTROL

Fencing

The need to contain stock, protect your property and respond to offers of assistance after fires can often result in fences and gateways being re-built in less than ideal positions. While there may be an urgent need to replace some fencing to manage livestock and other priorities, the replacement of other fencing may best be delayed until you have had time to plan the works appropriately. Given the need to de-stock burnt or partly burnt paddocks, there may be no rush to replace some fencing. In many cases internal fencing can be patched up for the temporary containment of stock.

Prior to the clean-up and replacement of fencing it is recommended you take plenty of photos and carefully mark the location of the original boundary fence. The boundary fence is the only fence that must go back where it was.

When cleaning up, separating old fencing materials into steel, treated and untreated timber will make recycling and disposal easier and more effective. Fencing wire can be salvaged and recycled but not if it is contaminated with wood.

The loss of internal fencing due to fire or flood provides landholders with a great opportunity to review and upgrade the layout of their farm. This might result in minor changes to a fence alignment, changing the location of gateways, construction of a laneway or laying out your fencing according to land classing and whole farm planning principles. You might also consider offsetting your boundary fence to avoid roadside vegetation. The loss of fencing also gives landholders an opportunity to consider alternative fencing materials such as concrete or steel end assemblies, plain wire, ringlock, electric fencing or other fencing that is better able to exclude pests such as wild dogs.

Private fences

Landholders are responsible for the repair and replacement of fences *that are entirely on private land*.

After a fire, volunteer or service organisations may assist with replacing fencing. For urgent assistance with erecting fencing please contact BlazeAid Inc on 0418 530 471.

Farm fencing adjoining State and National parks and State forests

For fire damaged boundary fences between private land and National Parks, State Parks or State forests, the Victorian Government will contribute towards the material costs of repair or replacement.

The Government will pay half the material costs of boundary fencing upgrades, up to a specified amount per kilometre. Landholders will continue to pay labour costs and half the remaining cost of materials.

For more information contact the Customer Service Centre on 136 186.

Farm fencing destroyed by firefighting activities

The Victorian Government will pay 100 per cent of the restoration costs of fences damaged on private land as a result of machinery used by fire agencies to control bushfires, or fire agency staff cutting through fences to allow access for suppression efforts.

This includes damage to fences by machinery such as bulldozers entering the property and/or constructing fire control lines, and other emergency vehicles obtaining access.

For details regarding assistance with fencing or the rehabilitation of control lines established by fire agencies, during the suppression of bushfires please contact DEECA on 136 186, or your local fire recovery centre.

Whole farm planning – dryland

Whole farm planning involves fencing and managing land according to its capability or land class. The aim of whole farm planning is to improve farm productivity, reduce land degradation and improve environmental outcomes.

Land classing is based on climate, topography, soils, flooding and drainage. A whole farm plan usually consists of an aerial photo with numerous layers of extra information. It can be on paper or more commonly is completed using a computer-based mapping program. Whole farm planning often considers a range of other issues including farm water supply, pastures and biosecurity.

If you lose a significant amount of fencing due to a fire, it does provide you with the opportunity to re-fence according to your whole farm plan rather than just replace the fences in the same position.

For assistance with obtaining an aerial photo of your property, developing a fencing plan, or undertaking a whole farm planning course, please contact Agriculture Victoria on 136 186.

Irrigation infrastructure

Irrigation infrastructure is often used to assist in fighting fires and irrigated areas can also be used to shelter stock and machinery during fires.

After the fire, assess the damage to crops/pastures and trees. If these are unsalvageable and there is damaged irrigation infrastructure this may be an opportunity to investigate whether you replace everything as it was or whether this is an opportunity to invest in a more efficient system. If the crops/pastures and trees are not too badly damaged the priority may be to quickly fix any damaged infrastructure to minimise yield losses or avoid quality decline. If electricity was used to pump water and the power is out, a temporary diesel generator or diesel motor and pump may be required.

Assess the irrigation water source. If irrigation water is sourced from a dam or small stream this may become polluted and unusable. If only mildly polluted a filter system may be sufficient. Consider regular flushing of drip irrigation lines to reduce emitter blockage. Use flushing valves where these are fitted and monitor quality of flushed water. Ensure foot valves and strainers are free of debris. Monitor pump pressures to ensure they are stable and not rising over time.

Thoroughly check all aspects of the irrigation systems that could have been damaged. Check polyvinyl chloride (PVC) pipes and hoses, (exposed PVC pipes), rubber hose joiners and fittings, tyres and wiring to solenoid control valves.

If major damage has occurred consider undertaking an irrigation whole farm plan. Irrigation whole farm plans enable irrigation infrastructure to be planned and then implemented in a coordinated and staged approach to achieve productivity and broader catchment benefits. They consider water source, water quality, soil type, topography, energy efficiency and estimated crop and pasture water requirements to determine optimal system capacities.

In some catchments, financial assistance maybe available for the development of irrigation whole farm plans.

Please contact your nearest Agriculture Victoria irrigation extension officer for assistance and advice regarding irrigation infrastructure and whole farm planning.

Tree risk assessment

Enquiries should be directed through your Municipal Recovery Centre, established by most councils after a fire.

Essential water replacement

DEECA manages the Victorian Government policy regarding replacing essential water taken to fight fires.

Country Fire Authority (CFA) and Forest Fire Management firefighters have the legislative powers to take water from any waterway or water source for firefighting purposes. The water owner can request replacement of essential water under this scheme.

If taken for firefighting purposes, a reasonable and sufficient volume of essential water will be provided to sustain the health of affected residences and pets health and productivity of stock.

To lodge a request for essential water replacement, download and complete the Essential Water Replacement form then email it to **emergency.recovery@deeca.vic.gov.au**

Your local council DEECA or CFA office can assist you with lodgement if required. Essential water replacement requests must be submitted within three months of the essential water being taken for bushfire fighting operations.

For more information, visit: ffm.vic.gov.au/recovery-after-an-emergency/public-land-recovery

Other useful resources:

Essential Water Replacement request form: ffm.vic.gov.au/recovery-after-an-emergency/public-land-recovery

Clearing of native vegetation

After a fire you may need to remove native vegetation to fence lines.

It is important to note that under DELWP guidelines, a planning permit is required to remove, destroy or lop native vegetation in Victoria.

This requirement does not apply to native vegetation that is to be removed, destroyed, or lopped to the minimum extent necessary to enable:

- The operation or maintenance of an existing fence; or
- The construction of a boundary fence between properties in different ownership.

The clearing along both sides of the fence when combined must not exceed four metres in width, except where land has already been cleared four metres or more along one side of the fence, then up to one metre can be cleared along the other side of the fence. Ensure adjacent landholder consent is obtained to clear on their side of the fence.

For more information on these regulations, visit: **environment.vic.gov.au/native-vegetation/native-vegetation-removal-regulations**

Erosion and flooding

Soil erosion

Bushfires destroy vegetation, leaf litter and organic matter. As a result, the soil becomes more vulnerable to both wind and water erosion. The lack of vegetation in catchment areas also increases the frequency and intensity of flooding. In steeper terrain, the movement of water, debris, soil and rocks can be quite dramatic, resulting in significant damage to farm assets and the environment.

This movement of material can occur rapidly in the form of a flood, mudslide or debris flow or more slowly as a landslide. Some soil erosion is inevitable following a bushfire. Controlling much of this erosion can be quite difficult; it is important to focus your efforts on protecting your family and farm.

Wind erosion

Wind erosion commonly occurs on paddocks with lightly textured soils that have been exposed to a moderate or high intensity bushfire. Paddocks with poor annual pastures, crop stubble or those disturbed by firefighting equipment are the worst affected.

The risk of wind erosion can be minimised by removing remaining stock as soon as possible. Mechanical control methods such as sowing a cover crop, deep ripping or ridging should only be undertaken in high-risk areas such as old sheep camps, gateways or other areas of loose sandy soil.

A cover crop of a cereal, such as oats, can be direct drilled or broadcast over the affected areas at a rate 30 kilograms/hectare. Deep ripping and ridging are quite specialised activities and are only successful on certain soil types. It is recommended you seek advice from Agriculture Victoria staff before proceeding with these treatments.

Sheet and rill erosion

Sheet and rill erosion are common in hilly terrain following more extreme bushfires. They can cause long-term degradation through the loss of organic matter and topsoil, compaction and damage to the soil structure. Similar to wind erosion, control is best achieved by removing stock as soon as possible.

Sheet and rill erosion can be successfully controlled on smaller, high-risk areas by covering the ground with clean organic mulch such as wood shreds or chips, straw or the branches and leaves of small shrubs and trees. Sowing pasture seed or a cover crop of oats under the mulch will provide longer term protection.

Care should be taken to ensure mulch and seed are not contaminated with weeds or a fungal disease such as phytophthora. Deep ripping may be used as a last resort to control surface runoff in non-sodic soils.

Gully erosion

Gully erosion is common in more hilly terrain following bushfires due to the increase in runoff, lack of ground cover and soil disturbance following firefighting activities. It can appear anywhere water concentrates such as on roadsides, along existing drainage lines or in dam spillways. Gully erosion control involves diverting or draining water away from affected areas, slowing and spreading the flow and protecting the underlying soil with vegetation, mulch or a range of man-made materials. While deep active gully erosion can be difficult and expensive to control, there are a few techniques that can be used to minimise the damage. These include:

- Constructing cross drains, humps or bars across roads, tracks and fire lines
- Constructing extra water runoff drains to shift water away from roadside table drains
- Diverting water away from vulnerable sites with gently sloping banks made of earth, straw bales or sheets of corrugated iron buried in the ground and supported with steel posts. Gently sloping drains can be used as a last resort
- Making a grassed chute using straw, old netting and steel pegs
- Protecting a gully head by making a temporary chute with a used grain tarpaulin or carpet. The top end of the tarpaulin or carpet needs to be buried in a trench with the sides supported on earthen banks or bales of straw. Heavy builders' plastic can also be used as a chute material if nothing else is available
- Installing a trickle flow pipe or lowering the water level in a dam to protect the bank and spillway
- Using carefully placed weed-free straw bales to form a weir in the floor of a gully
- Rocks, old bricks and concrete rubble can be used to control gully head erosion, however this requires careful selection of materials, good design and careful construction to be successful.

Flooding

Significant flooding can occur in hilly and mountainous terrain following a bushfire, due to the reduced vegetation protecting the topsoil. Floodwater often contains large volumes of soil, sand, gravel, ash, charcoal, timber and other organic debris. These materials block culverts, bridges, fences and dam spillways. They can also result in the blockage of existing creeks and drainage lines resulting in the flood water taking a new path, potentially damaging houses and other farm infrastructure. Strategies to reduce the damage can include:

- Diverting flows away from houses and other farm assets using earthen banks, straw bales or sheets of corrugated iron buried in the ground and supported with steel posts
- Placing a row of closely spaced steel posts upstream of culverts and stream crossings to trap woody debris.

Debris flows, mudslides and landslides

While landslides are common in higher rainfall parts of Victoria, debris flows and mud slides are a more recent phenomena. Unlike landslides, which are relatively dry and slow moving, debris flows and mud slides are more dangerous sweeping up large trees, rocks and boulders as they move rapidly downstream. They have the potential to do enormous damage to people, the environment, roads, bridges and farm infrastructure.

These forms of soil erosion are associated with steep slopes, unconsolidated sediments, lack of vegetation and highly saturated soils. They are difficult to predict and nearly impossible to prevent or control.

Pasture recovery

Fire affects pastures in different ways according to a number of factors including:

- intensity of the fire
- pasture species
- fertility of the soil
- time of the autumn break and follow-up rain.

Fire intensity

Three categories of burns can be defined by considering what was burnt and destroyed during a fire and what remained:

- Cool-moderate burn: Most dead plant material burnt; some seed and perennial grasses and clovers survive unhurt. There will usually be a small residue (or stubble) of unburnt pasture remaining. Paddocks tend to be a light to medium brown colour.
- Hot burn: All dead plant material, many seeds, young and weaker perennial grasses destroyed. The surface usually appears charred, dark brown to black and often bare of plant residue.
- Very hot burn: The soil is virtually sterilised. All plant material and seed is destroyed as the fire burns into the top organic matter layer of the soil. The ground looks like an ash bed rather than a soil surface.

Generally cool-moderate burns occur where there is little dry grass cover before the fire. Hot burns occur where there is heavy plant cover such as lightly grazed pasture or crop stubble. Very hot burns occur under hay bales, windrows, on sheep camps, on soils with a thick root mat, or where an intense fire emerges from bush areas onto pasture land, including roadsides.

Plants that bury their seed or have growing points below the surface are more able to survive the effects of a fire.

How do I know if my pastures will recover?

Look for small tufts or clumps of grasses that have been burnt in the paddock. Gently tug on the clump. If the clump does not pull out, it generally indicates that the plant roots have survived with little damage and should recover when rain returns.

Another option is to select a small area of the paddock that has been burnt (a metre square area) and using a watering can or bucket apply about five litres of water over the area each day for a fortnight to three weeks. This will give an idea of what may regrow once it rains.

Effects on annual species

Most annual grasses produce very little dormant seed. Usually 80 to 90 per cent of the seed in one season will germinate in the following autumn. This means any factor, such as fire which destroys annual grass seed, will likely cause a drastic reduction in the annual grass component in the pasture. In addition, the annual grass seed that survives the fire is vulnerable to removal by wind. Subterranean clover has the ability to bury its seed. This substantially reduces the damage to the seed caused by fire.

Effects on perennial species

Grasses

Recently re-sown perennial grass pastures can be seriously damaged by fire. The young perennial plants without well-established root systems and reserves are more vulnerable to fire damage. Almost all well-established perennial grasses survive a cool-moderate burn. The ability to survive a hot burn varies between species. Grasses with growing points below the soil surface survive best. Native species such as microlena or weeping grass are well adapted to surviving cool to moderate burns for this reason.

Legumes

Observations of burnt white clover-based pasture following the 1983 Cudgee fires indicated the survival of white clover is very similar to the survival of perennial ryegrass.

What can be done?

There are several possible courses of action after a fire. The appropriate action will depend on the intensity of the burn, the condition of the pasture prior to the fire and the finance and time available:

- Cool-moderate burn: The pasture should recover to its original density during the following year given adequate moisture and the absence of soil nutrient deficiencies
- Hot burn: In most cases it is probably best to wait a season and see how the pasture recovers before considering re-sowing. However, in some cases it may be a good opportunity to reliably direct drill new pasture species or top up the old pasture
- Very hot burn: Almost all plant material will be dead so the area should be cropped or re-sown to pasture following the fire.

Several management practices may improve the recovery of pasture after fire:

Adding new pasture seed: New pasture seed can be added to the pasture in a variety of ways, such as direct drilling or over-sowing. It is usually best to wait until there is a germination of annuals after the autumn break. If weeds are dense, chemical weed control may be necessary before sowing the seed.

Autumn saving: Leaving stock off the burnt pastures for a least a month, but depending on the growing conditions possibly longer, improves the vigour and longer-term performance of surviving plants.

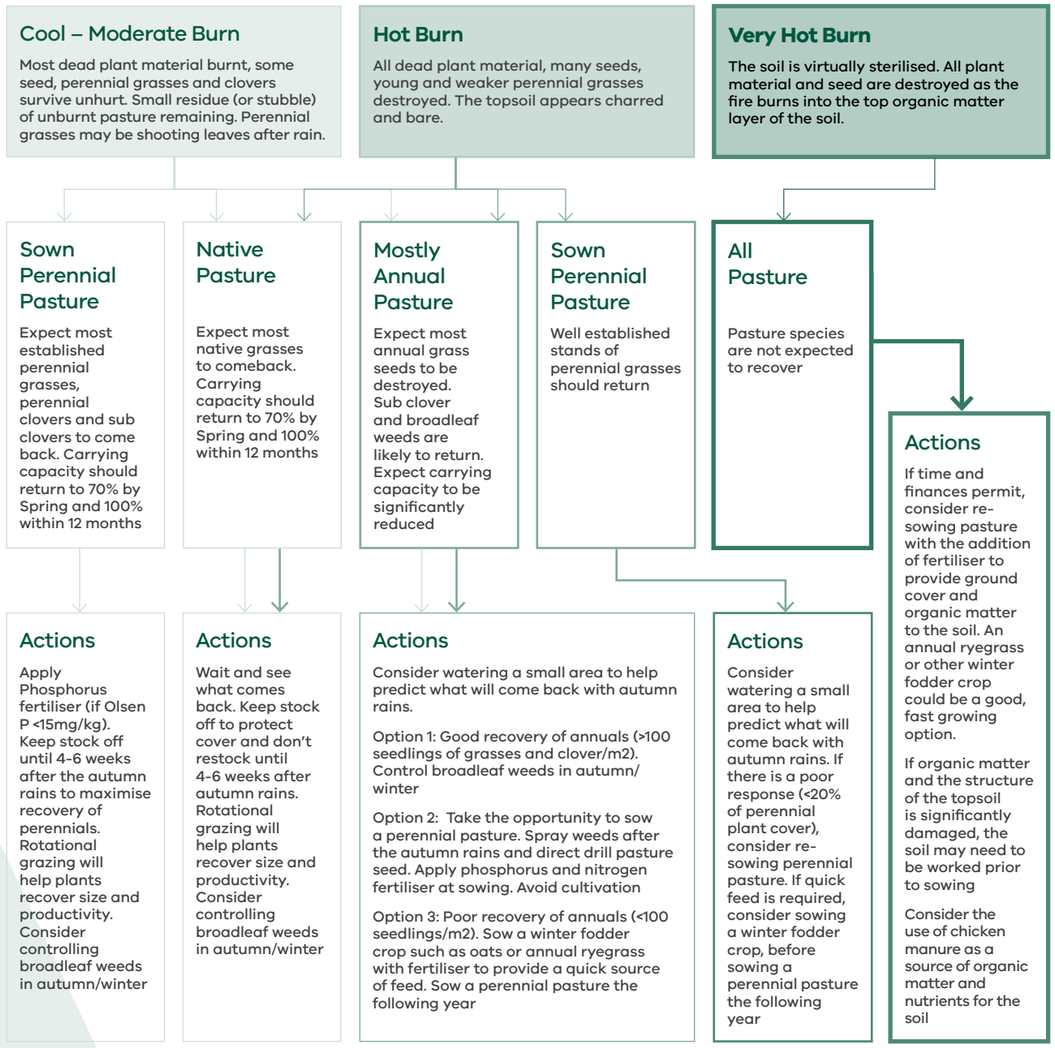
Fertiliser: Fertiliser application (particularly phosphorus to promote strong root systems) will speed pasture growth and recovery where there is an adequate density of regenerating plants or pasture seed has been sown. Nitrogen levels in the soil are often depleted after a fire due to organic matter near the soil surface being burnt. Sometimes recovering pastures can appear pale green to yellowish due to a lack of nitrogen. Strategic use of a nitrogen source such as urea, may improve the recovery of the pastures.

Broadleaf weed control: Where broadleaf weeds start to dominate the recovering pasture, control measures such as the use of herbicides or spray-grazing are recommended.

Seed set: The pasture plants should be encouraged to set seed in the spring following the fire. This can be assisted by avoiding heavy grazing pressure in the mid-late spring period and not cutting the pasture for hay.

The following flow chart will assist with decisions and actions for pasture recovery:

Figure 1: Pasture recovery after fire – decision flow chart.



The following information notes are available on the Agriculture Victoria website:

Pasture recovery after fire. Fire changes the botanical composition and will retard the pasture leading to a reduction in the growth and carrying capacity in the following season: **agriculture.vic.gov.au/farm-management/emergency-management/bushfires/what-to-do-after-a-bushfire/pasture-recovery-after-fire**

Pasture Recovery After Fire. A quick reference guide to pasture recovery with the effects of different burn intensities: **agriculture.vic.gov.au/__data/assets/pdf_file/0008/566054/2018-Agriculture-Victoria-Pasture-Recovery-after-Fires-Quick-Reference-Guide.pdf**

Pest and weed control

Pest animal control

There is an increased window of opportunity to control pest animals post fire, as their food source has been disrupted.

Rabbits

Fire removes groundcover, so there is an opportunity to map where burrows exist. A baiting program is appropriate for large numbers and can be used as part of an integrated management system where a warren-ripping and fumigation program could follow. Generally, one activity by itself is insufficient to control rabbits and vacant warrens will eventually be re-inhabited. When using chemicals, always follow label directions carefully.

Foxes and wild dogs

Foxes and wild dogs are controlled by baiting, shooting and destruction of dens. The integrated use of several methods will enhance control. Fox control following summer fires is particularly important for autumn lambing. For spring lambing, control can be left to mid-year. Baiting can be undertaken using 1080 and poisoning with para-aminopropiophenone (PAPP) poison. An Agricultural Chemical User's Permit (ACUP) is required with a 1080/PAPP endorsement to undertake this work. When using chemicals, always follow label directions carefully and follow the 'Directions for use, 1080 and PAPP pest animal baits in Victoria' when baiting. A program coordinated with neighbours is likely to be more effective.

The following information notes are available on the Agriculture Victoria website:

Directions for use of 1080 and PAPP bait products. All users of 1080 and PAPP must comply with the Direction for the use of 1080 and PAPP pest animal bait products in Victoria unless they have a permit for an approved use issued by Agriculture Victoria or AMPVA: **agriculture.vic.gov.au/farm-management/chemicals/requirements-for-using-1080-and-PAPP-animal-bait/directions-for-use-of-1080-and-papp-bait-products**

Integrated rabbit control. Rabbits are one of Australia's most serious pest animals. For information on rabbit biology and behavior and managing rabbits on your property: **agriculture.vic.gov.au/biosecurity/pest-animals/invasive-animal-management/integrated-rabbit-control**

Integrated fox control. In Victoria red foxes are declared as established pest animals under the Catchment and Land Protection Act 1994. They are predators of livestock and native animals: **agriculture.vic.gov.au/biosecurity/pest-animals/invasive-animal-management/integrated-fox-control**

Livestock predation management. In Victoria, feral or wild populations of dog are declared established pest animals and are subject to integrated management: **agriculture.vic.gov.au/livestock-and-animals/livestock-health-and-welfare/livestock-predation-management**

Pest animals. Invasive pest animals threaten and impact Victorian farms, parks, forests, waterways, biodiversity and catchment assets: **agriculture.vic.gov.au/biosecurity/pest-animals**

Weed management

Impact of fire on weeds

The risk of weed invasion and the impact on farms and the environment dramatically increases during and after fire. Immediate effects of weed invasion after fire are not only felt in the areas burnt but also throughout the landscape, where weeds have been dispersed by vehicles, humans, fodder, stock and even water.

Bushfire brings with it two processes that can potentially increase the rate of weed invasion. One relates to the creation of a window of opportunity for competitive exotic plant species after fire. These species will take advantage of extra light, space, nutrients and moisture caused by the absence of desirable plants such as native vegetation, crops or pasture. Desirable species may also be vulnerable to pest species through selective grazing on new growth.

The other process relates to weed spread as a result of fire suppression and fire recovery activities as well as environmental events.

During fire suppression activities, vehicles and machinery such as bulldozers can carry weed propagules (seeds, stems and bulbs) and spread weeds. Humans can also spread weed propagules on their clothing or boots.

During fire recovery, weed propagules can be spread when importing fodder onto a farm, introducing agisted or replacement stock to a farm, through vehicles and equipment, or spread through seed, mulch or soil introduced to a farm.

Environmental events

Weed seeds can also be spread by water flow across bare ground during rain.

Once ground temperature reaches above 200 degrees celsius, the organic matter vaporises and makes the soil resistant to water (hydrophobic). Higher runoff rates not only cause erosion and siltation of waterways but aid the dispersal of weed seeds further down the catchment.

Seeds from desirable species, as well as weed seeds, may be blown from bare ground burnt by moderate intensity fire. This can leave areas more susceptible to new weed invasions with more weed seed deposited by wind.

Weed spread after fire

Natural ecosystems

Bushfires often burn areas of exotic weeds that were posing a significant threat to forests and natural ecosystems. Weeds quickly re-establish after fires often germinating more quickly than native species. Bushfires can exacerbate the growth of opportunistic weeds such as English Broom, Blackberry and St John's Wort.

Bushfires can present an opportunity to gain access into areas to tackle these weeds. Integrated weed control programs can focus on minimising the threats to key conservation values, infestations affecting neighbouring properties and eradicating isolated pockets.

Weed management before, during and after wildfire

There are many strategies to minimise weed establishment and spread before, during and after fire.

Before and during fire:

Knowing where weed infestations are or have been (mapping) enables a quick response for surveillance, leading to control and prevention of the spread of weeds. It may be beneficial to establish strategic vehicle and machinery wash-down areas for fire vehicles and other machinery that need to work in high-risk weed spread areas.

After fire:

- Verify your weed mapping and step up surveillance for new weed outbreaks. Perennial weeds with well-established, deep root systems survive fire very well. Weeds such as flat weed, docks, sorrel and onion grass are the first plants to recover and are often prominent after fires
- Check the origin of your fodder. Has it come from a known weed infested site? Keep records of where fodder is purchased
- Feed out fodder in a confined area (stock containment areas), away from drainage lines to reduce the likelihood of weeds being spread
- Monitor the feed areas regularly and be suspicious of unfamiliar plants
- Identify suspect plants as soon as possible
- When building up stock numbers or accepting agisted stock, quarantine them for 14 days to allow time for viable seed to pass through the animal
- Check sheep for weed seeds in fleece and continue to check for weeds in areas with new stock
- Monitor stock routes and roads for up to 12 months after fire to detect new weeds
- Ensure vehicles and equipment of agencies, contractors and advisers are clean and free of weeds before entering and leaving your property
- Seed, mulch, soil and rock to be used for rehabilitation programs should be free of weed seed and propagules
- Increase integrated weed control treatments – the first two years are critical
- Revegetation work must go hand in hand with treatment.

The following information notes are available on the Agriculture Victoria website:

Weed warning after drought, fire and flood. The risk of weed invasion, and their impact on farms and the environment dramatically increases during and after an emergency such as drought, fire or flood: **agriculture.vic.gov.au/biosecurity/weeds/reducing-weed-risk**

Weeds are a threat to primary production and biodiversity. Learn about the identification and eradication of weeds on Victoria's prohibited list: **agriculture.vic.gov.au/biosecurity/weeds**

Podcasts

The following podcasts provide valuable insights and practical advice for dealing with bushfires and their aftermath.

I want to share my experience of fire with Tom Silcock.

In this podcast, Merino farmer Tom Silcock shares valuable lessons learned from dealing with the devastating impacts of bushfires, including damaged infrastructure, burnt pastures, and livestock loss, near his properties in Balmoral.

Listen: **agriculture.vic.gov.au/support-and-resources/podcasts/agvic-talk-podcast-series/agvic-talk-season-1#podcast-id-KEHKE3430791831**

Make sure you are bushfire prepared with Jeff Cave.

In this podcast episode, Jeff Cave, Agriculture Victoria's Senior Veterinary Officer, shares insights on minimizing the impact of bushfires on livestock and managing them during and immediately after a fire.

Listen: **agriculture.vic.gov.au/support-and-resources/podcasts/agvic-talk-podcast-series/agvic-talk-season-1#podcast-id-KEHKE5295987360**

Pasture management in autumn post fire with Fiona Baker.

This podcast provides autumn management tips for pastures affected by bushfires. She discusses key strategies for recovering pastures, including assessing pastures, deciding when to resow, summer fodder cropping, grazing management, and maintaining soil fertility.

Listen: **agriculture.vic.gov.au/support-and-resources/podcasts/agvic-talk-podcast-series/agvic-talk-season-1#podcast-id-KEHKE1741092158**

Spring pasture management of fire affected pastures with Fiona Baker.

Fiona Baker, an extension officer with Agriculture Victoria, provides spring management tips for pastures affected by bushfires, including assessing pastures, deciding when to resow, fodder conservation, summer fodder cropping, grazing management, and maintaining soil fertility

Listen: **agriculture.vic.gov.au/support-and-resources/podcasts/agvic-talk-podcast-series/agvic-talk-season-1#podcast-id-KEHKE4345707748**

Dealing with stress during difficult times with David Cherry.

Psychologist David Cherry discusses the mental and physical effects of stress on farming communities and emphasizes the importance of managing stress for mental health and decision-making during challenging times.

Listen: **agriculture.vic.gov.au/support-and-resources/podcasts/agvic-talk-podcast-series/agvic-talk-season-1#podcast-id-KEHKE9563436841**

Planning and preparing for a harvest fire, with Ian Hastings.

Mallee grain farmer Ian Hastings emphasizes the importance of ensuring everyone working in the paddock during harvest knows how to operate firefighting equipment and warns that without planning, practice, and training, lives and money are at risk.

Listen: **agriculture.vic.gov.au/support-and-resources/podcasts/agvic-talk-podcast-series/agvic-talk-season-2#podcast-id-KEHKE9832164950**

PART 3:

PREPARE FOR THE NEXT SEASON

Bushfire survival plans

The most important aspect of fire management is the safety of people. The Country Fire Authority (CFA) recommends you develop a bushfire survival plan to help protect your family, workers and visitors.

It is strongly recommended you obtain a copy of the CFA publication *On the Land: Agriculture Fire Management Guidelines* (updated 2019). This booklet contains checklists for environmental health, burn offs, harvester safety and fire preparation.

To obtain a free copy of this booklet and other useful documents related to fire safety and management, contact your local CFA office, or visit the CFA, **cfa.vic.gov.au/about-us/publications/plan-and-prepare-publications/plan-and-prepare**
or call CFA Community Safety on (03) 9262 8444.

Deciding when to enact your fire plan will be based on the weather or the immediate threat of fire in your area. Listen to your emergency broadcasters to hear fire updates, community alerts and other important messages and observe your own environment to decide when to put your plan into action.

You can get information by tuning in to ABC local radio, or other emergency broadcasters including radio or SKY News, by downloading the VicEmergency app or following VicEmergency on Facebook or Twitter.

A complete list of official emergency broadcasters can be downloaded from the Emergency Management Victoria (EMV) website, visit:
www.emv.vic.gov.au

Make sure you have access to a battery powered radio to use because the power may fail. Alternatively you can call the VicEmergency Hotline on 1800 226 226 (free call).

Agriculture Victora's Fire Preparedness Toolkit

The Fire Preparedness Toolkit is designed to assist farmers and land managers to prepare for the fire season. The Fire Preparedness Toolkit includes checklists and templates have been developed with input from landholders and can help form your fire preparedness plan.

To download a copy visit: **agriculture.vic.gov.au/farm-management/emergency-management/bushfires/fire-toolkit**

Dairy resources

Dairy Australia has a *Preparing for Bushfires* webpage. A number of Australian dairy regions are in the most fire-prone areas of the world. To help prepare for bushfires, dairy farmers can use Dairy Australia's Dairy Farm Fire Plan. This plan can help to best protect family, staff, livestock, dairy and machinery from all types of fire threat, visit:
dairyaustralia.com.au/issues-and-emergencies/extreme-weather/preparing-for-bushfires

Remember to include all valuables in your insurance, including your working dogs.

Livestock and pets

All livestock and pets should be included when developing and activating fire plans. Planning helps to minimise the risk to livestock and pets and helps your financial and emotional wellbeing.

The following information notes are available on the Agriculture Victoria website:

- **Planning for pets in emergencies.** Plan ahead for your pets during emergency events, such as bushfires or floods. Prepare a pet emergency kit and plan how to evacuate with your pet: **agriculture.vic.gov.au/livestock-and-animals/animal-welfare-victoria/pets-and-emergencies/planning-for-pets-in-emergencies**
- **Pets and emergencies.** Your pets are your responsibility. Failing to plan ahead for your pets' safety during an emergency puts everyone's lives at risk: **agriculture.vic.gov.au/livestock-and-animals/animal-welfare-victoria/pets-and-emergencies**
- **Horses and livestock in emergencies.** Plan ahead and prepare an emergency plan that covers major disasters that have the potential to impact on your family and your animals: **agriculture.vic.gov.au/farm-management/emergency-management/emergency-animal-welfare/horses-and-livestock-in-emergencies**

Other useful information notes and websites:

- **CFA - Pets and bushfires.** When preparing your bushfire survival plan, you also need to plan and prepare for the safety of your pets: **cfa.vic.gov.au/plan-prepare/pets-and-bushfires**

Farm biosecurity information

The recovery phase of a disaster such as a fire can have significant implications for animal health and often changed biosecurity risks. By having a farm biosecurity plan to complement your disaster management and evacuations plans, you will ensure that you address all your biosecurity and traceability requirements.

For tools, tips and manuals to help you develop and implement a farm biosecurity plan for your property, visit: **farmbiosecurity.com.au**

Emergency stock containment area

To reduce potential injury and death to livestock you should consider relocating stock to designated low-risk areas during days of high fire danger and Total Fire Bans. Low-risk areas include:

- Ploughed paddocks, areas cultivated and kept free of combustible vegetation
- Bared-out paddocks, provided they are well defended by fire breaks
- Irrigated paddocks or paddocks containing green summer crops (green feed does not burn easily)
- Stockyards that can be wet in advance. However, the yards must be well defended as the fire front passes.

You should relocate stock to low-risk areas once you are aware a fire is in your area, well before it poses an imminent threat. Often there is not enough time to move stock at the last minute. Radiant heat from fire has resulted in the injury and death of people and livestock caught out in the open, so ensure you have a plan and put it into action as soon as warranted.

If you do not have an appropriate low-risk area you may need to truck them to another property or open internal gates to give stock the ability to move away from the path of the fire. Do not open gates onto roadways as livestock on the roads creates hazards for vehicles. The CFA recommends you do not lock gates and that you switch off electric fencing.

Insurance cover

The need for insurance differs from farm to farm according to financial circumstances and an individual's preparedness to take or share risk. However, one constant is that all who are affected in an intense fire suffer some degree of trauma. There is also no doubt this trauma can be significantly alleviated if insurances are in order and provide adequate cover for losses.

Those who insure wisely are usually the quickest to recover and to begin restoring boundary fencing and planning for their future. With rapidly rising operational costs, farmers are often tempted to cut back on insurance and accept more risk. The temptation to do this should be resisted and instead alternatives explored before a decision to accept more risk is taken. Careful financial planning before a crisis is key to ensuring your farming future.

Firstly, choose your insurance company carefully. Shop around to get the best deal but always make sure the company you select has a good rural policy and fully understands the needs of a commercial farming or grazing property and of your own personal needs. Go through your policies with the company representative annually and adjust where necessary. The increasing complexity and cost of plant and equipment should be taken into account each year when determining what to insure and to what level.

The Insurance Council of Australia (ICA) offers a free find an insurer service at **www.findaninsurer.com.au**. The service enables consumers and businesses to search a comprehensive database of general insurers and their products. Insurance on homestead and major buildings is recommended even if you have carried out fire prevention works recommended by the CFA because fire is highly unpredictable as to where and when it strikes.

Having assets and stock lost in a fire but covered by insurance is likely to result in a loss of income by the time they are replaced and reproduce. Business interruption insurance will return to the insured the amount of profit they would have earned had there been no fire. The cost of this insurance is similar to asset insurance rates.

Insurance is designed to provide a safe guard against adversity and give peace of mind to those whose assets are vulnerable to the ravages of fire and other disasters.

Your insurer or assessor should always be the primary contact regarding your claim. However, the ICA can provide general insurance information about managing your claim or how to lodge a complaint. Phone 1800 734 621 for more information.

You can find information on lodging a claim following a disaster at: **www.disasters.org.au.**

Insurance checklist

- ☐ A check list of items to remember includes:
- ☐ Home buildings
- ☐ Farm buildings
- ☐ Machinery (mobile and fixed, including breakdown)
- ☐ Fencing
- ☐ All major crops including re-sowing subsidy
- ☐ Livestock
- ☐ Farm equipment including electronic devices
- ☐ Working dogs

Questions to ask when considering insurance

- What is the risk of theft?
- What is the history of destructive wind, hail, flooding and fire in my area?
- Are there ways I can mitigate or reduce those risks before taking out insurance cover? Does my operation require straying stock cover?
- Does my farm have unique or uncommon operations, such as Genetically Modified (GM) crops, hydroponics etc. Are these operations covered?
- Does my operation require public liability insurance?
- If my farm ceases to provide an income or ceases production, should I consider business interruption insurance?

Acronyms

Agricultural Chemical User's Permit (ACUP)

Catchment Management Authority (CMA)

Country Fire Authority (CFA)

Department of Energy, Environment and Climate Action (DEECA)

Department of Health (DoH)

Department of Families, Fairness and Housing (DFFH)

Department of Jobs, Skills, Industry and Regions (DJSIR)

Electrical Conductivity (EC)

Emergency Management Victoria (EMV)

Emergency Recovery Victoria (ERV)

Energy Safe Victoria (ESV)

Farm Management Deposits (FMDs)

Genetically Modified (GM)

Incident Management Team (IMT)

Insurance Council of Australia (ICA)

National Livestock Identification System (NLIS)

Navigating Farm Developments (NFD)

Para-aminopropiophenone (PAPP)

Polyvinyl chloride (PVC)

Property Identification Codes (PICs)

Please note – some activities mentioned in this booklet may require licensing or a planning permit. Contact Agriculture Victoria or your local Council for further information.

For more information, including the Information Notes referred to in this booklet, visit the Agriculture Victoria website at **www.agriculture.vic.gov.au**

Published by Agriculture Victoria, Department of Energy, Environment and Climate Action

8 Nicholson Street Melbourne, Victoria 3002
Telephone 136 186

Updaed December 2024

Authorised by the Victorian Government, Melbourne.

Disclaimer
This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

Accessibility
If you would like to receive this publication in an accessible format, such as large print or audio, please telephone 136 186.

AGRICULTURE VICTORIA

13236 DJPR 1120