Weeds after fire

Are these Weeds or Natives?

Orbost Area
Post Fire Bush Regeneration

After the 2019-20 fires, DELWP and Bushfire Recovery Victoria have received many enquiries from the East Gippsland community regarding emerging plants and concern about weeds.

Am I seeing weeds colonise after fire or are these native plants?

It can be challenging to tell the difference between native and weed plants that respond to fire. This leaflet lists only a small number of regionally prioritised weeds and commonly mistaken natives.

Many plant species are stimulated to reproduce following a fire. The increase of available nutrients, light and moisture encourage rapid seed germination and growth in some plants. These are called colonising plants; they grow quick to protect the topsoil after disturbances like fire, and they can be both native and invasive species.

Plant responses post-fire include:

- Increased productivity,
- Increased flowering,
- Fire stimulated seed release and dispersal,
- Improved seedling germination and establishment (through physical and chemical cues such as rupturing of seed coat or smoke and ash). Some seeds are dependent on fire for germination.

Land managers have legal obligations, under the Catchment and Land Protection Act 1994 (CaLP Act), to control noxious weeds.

Weed plants

Dolichos Pea (*Dipogon lignosus*)

Description: Climber reaching up to 5m.

How it is spread: Fire stimulates seed germination, root mass reshoots, and suckers from roots and stems.

Invasive level: High. Smothers host trees.

Control technique: Chemical.

Spanish Heath (*Erica lusitanica*)

Description: Woody shrub up to 2m.

How it is spread: Mature plants can produce 9 million seeds annually and suckers from roots.

Invasive level: High.

Control technique: Chemical.

Madeira Vine (*Anredera cordifolia*), WoNS

Description: Climbing vine reaching up to 20 - 30m.

How it is spread: Vegetative reproduction is via underground tubers, and from bulblets on aerial stems.

Invasive level: High. Exceedingly difficult to control.

Control technique: Chemical.

Cape Ivy (*Delairea odorata*)

Description: Climber reaching up to 10m.

How it is spread: Reproduction is both vegetative from stolons and stems, and via seed dispersed by wind and water.

Invasive level: High.

Control technique: Physical or chemical.

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Weed plants

Cape Broom (*Genista monspessulana*) WoNS

Description: Shrub up to 3m, can form into dense thickets. Note that pods are hairy all over.

How it is spread: Fire stimulates the mass germination of long-lived seeds.

Invasive level: Moderate.

Control technique: Physical, chemical and biological.

Japanese Honeysuckle (*Lonicera japonica*)

Description: Climber reaching up to 10m.

How it is spread: Mass germination after fire, reshoots from roots, and suckers from roots and stems.

Invasive level: Moderate.

Control technique: Physical, chemical and biological.

Blue Periwinkle (*Vinca major*)

Description: Ground cover, stem length 2-4m.

How it is spread: Stems set roots when in contact with the ground; stems are transported by machinery and water. Prefers shady conditions. Poisonous to stock if eaten.

Invasive level: Moderate.

Control technique: Physical and chemical.

Shrub Willow (*Salix cinerea*)

Description: Multi-stemmed shrub forming thickets.

How it is spread: All willows form dense root masses. Reproduction is by seed and from branch nodes.

Invasive level: High.

Control technique: Physical, chemical and biological.

Weed plants

Fleabane (*Conyza sp.*)

Description: Annual or perennial erect herb, 1-2m.

How it is spread: Seeds spread by wind, water, garden waste and vehicles.

Invasive level: Invasive to disturbed areas such as roadsides and riverbanks.

Control technique: Physical and chemical.

Boneseed (*Chrysanthemoides monilifera*), WoNS

Description: Woody shrub up to 3m.

How it is spread: Fire stimulates seed germination. A mature plant can produce up to 50,000 seeds.

Invasive level: Moderate.

Control technique: Physical and chemical control.

Control techniques

Physical Control	
Hand pull	For small, isolated patches of weeds.
Mechanical	For large thickets or woody type weeds. Examples include brush cutter, mower, or dozer.
Burning	Controlled fires can prevent spread of some species.

Chemical control	
Spray	Large infestations use the herbicide recommended for the specific weeds.
Drill and fill	For large woody weeds.
Cut & Paste	For small infestations of young woody weeds.

Biological Control

Some weed species have approved biological control agents like a predator insect, parasite, or rust.

Further information

Victorian Resources Online:
Agriculture Victoria,
Department of Jobs, Precincts and Regions
https://agriculture.vic.gov.au/biosecurity/weeds

Herbiguide: Pesticide expert on a disk
http://www.herbiguide.com.au/InformationWeeds

Weeds Australia:
Weeds of National Significance (WoNS)
https://weeds.org.au/weeds-profiles/

Australian Pesticides and Veterinary Medicines:
Authority for chemical information
http://www.apvma.gov.au

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Native plants

Kangaroo Apple (*Solanum aviculare*)

Description: Native shrub up to 3m.

Ecology: Fire stimulates mass germination of long-lived seeds; it is a fast-growing, short-lived plant that provides shelter for the germination of shade-dependent plant species.

Benefits: Coloniser and shelter.

Incense Plant (*Calomeria amaranthoides*)

Description: Native biennial erect herb up to 3m.

Ecology: A coloniser species of flood-prone riverbanks or wettish forests regenerating after fire.

Benefits: Coloniser species.

Running Postman (*Kennedia prostrata*)

Description: Native ground cover / climber up to 3m.

Ecology: Colonising bare ground post-fire, this plant provides an important food source for butterflies and moths.

Benefits: Coloniser and food source.

Eastern Nightshade (*Solanum pungetium*)

Description: Native small shrub up to 1.5m.

Ecology: Fire stimulates germination. This plant can mature quickly and produce succulent berries which provide a food source for birds and lizards.

Benefits: Food plant.

Native plants

Hop goodenia (*Goodenia ovata*)

Description: Native shrub up to 2m.

Ecology: After fire or disturbance, this early coloniser species provides excellent shelter and fruit is a food source.

Benefits: Food and shelter plant.

Wattles species (*Acacia species*)

Description: Native shrub to tree up to 5 - 15m.

Ecology: This early coloniser species has nitrogen-fixing nodules on the root nodes; this is important for nutrient cycling and the regeneration of other tree species.

Benefits: Coloniser and nitrogen-fixing plant.

Photographs have been sourced from:

- Victorian Resources Online (VRO)
- Weeds Australia – Profiles
- NSW WeedWise
- VicFlora – ANBG
- Ethos NRM
- DELWP

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