

Garden Preparation for Bushfire Safety.

© Joan Webster

Author of *The Complete Bushfire Safety Book* (Random House 2000)

Essential Bushfire Safety Tips (CSIRO 2008)

Wishing you safe summers

Spring garden planting for summer bushfire safety



Mount Macedon, Ash Wednesday, 1983



Marysville, Black Saturday, 2009

Now is the time to start planting trees and shrubs that will resist fire and can help create a lifebelt around your home.

Television news and documentary footage such as ABC1's 4 Corners *Eye of the Storm*, shows that even at the height of the fires, with houses blazing into utter destruction, many trees are not burning. Newspaper aerial photos also show that many trees and gardens surrounding the ruins of houses remained unburnt.



Canberra 2003



Marysville 2009

- These houses have been destroyed by embers having been blown inside them.
- In these cases the gardens have neither protected nor endangered the houses. But they could have protected defenders or exiting shelterers.

The flammability of a plant has three aspects: *ignitability*, how quickly it flares; *sustainability*, how long flames last in it; and *combustibility*, how quickly it burns out.

The characteristics of a plant that make it slow to ignite include:

- salts such as ammonium phosphate and sodium chloride in leaves
- low cellulose (fibre) content
- lack of waxes, oils and resins
- the sappiness of leaves and twigs

Hardest trees to burn are European deciduous trees and now is the ideal time to plant them. The bushfire safety benefits of these amazing plants that resisted the Black Saturday fires deserve widespread recognition. Amidst kilometres of black and denuded eucalypts, beside dead stands of pines, the groves, avenues and single sentinels of European deciduous trees stood imperviously green.



It does not necessarily follow that planting European deciduous or other fire retardant trees will prevent house destruction during a bushfire. But there is no doubt they will:

- reduce the amount of flame, embers and radiant heat reaching a building.
- ease the task of defending homes
- provide home defenders with shelter from radiant heat and falling embers
- provide a safe retreat for shelterers exiting a house.

Intensity depends entirely on density.

Regardless of the intensity of an actual bushfire, what matters most to homeowners is the intensity of a fire spotted into their own yard. This fire will be closest to your house and to you. So personally thinning the undergrowth and ground litter in your garden is even more important for your danger/safety than official fuel reduction in the bush.



X

✓ Safe on Black Saturday

X

Post Ash Wednesday research by the CSIRO Division of Building Research found that where gardens had their shrubbery and ground litter reduced, any approaching fire - no matter how fierce to that point - decreased in severity. Control of fire intensity around your own patch is in your own hands.

Fire can't burn what you've cut back. It can't burn bare earth or gravel paths.

Bushfire safety garden jobs to do now

Replace flammable vegetation with fire retardant plants

Favour smooth-barked trees over rough barked.

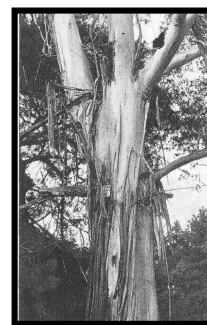
Strip trees of messy bark



Smooth-barked trees singed. A Bendigo garden



Rough-barked trees burnt to tops. Kinglake National Park



Messy bark can fly for 30 kilometres

Break up continuous vegetation. Spaced plants are safe plants. Grow trees and shrubs singly or in clumps isolated from other clumps. Continuous lines become fuses.

Plant dense, wide-spreading, fire retardant trees on the fire-wind sides of the house. In such canopies, sparks fizzle out. They can shield the roof. E.g. oak, crab-apple, lilly-pilly.

Plant hedges to lift ember-bearing winds up and away from house.

Move woodheaps from verandahs and beneath trees

Transplant shrubs away from windows and flammable walls.

Clear rubbish from near buildings



Mow/slash long grass and remove the waste. Short grass cannot ignite trees or fences.

Create paths as firebreaks between garden beds and windows or flammable walls.

Prune trees 2m from buildings and up from ground.

Repot from plastic to terra-cotta pots. Plastic pots are flammable. Move away from walls.

Surround buildings with earthen ramps or raised beds of fire retardant plants to halt blowing, burning leaves and litter.

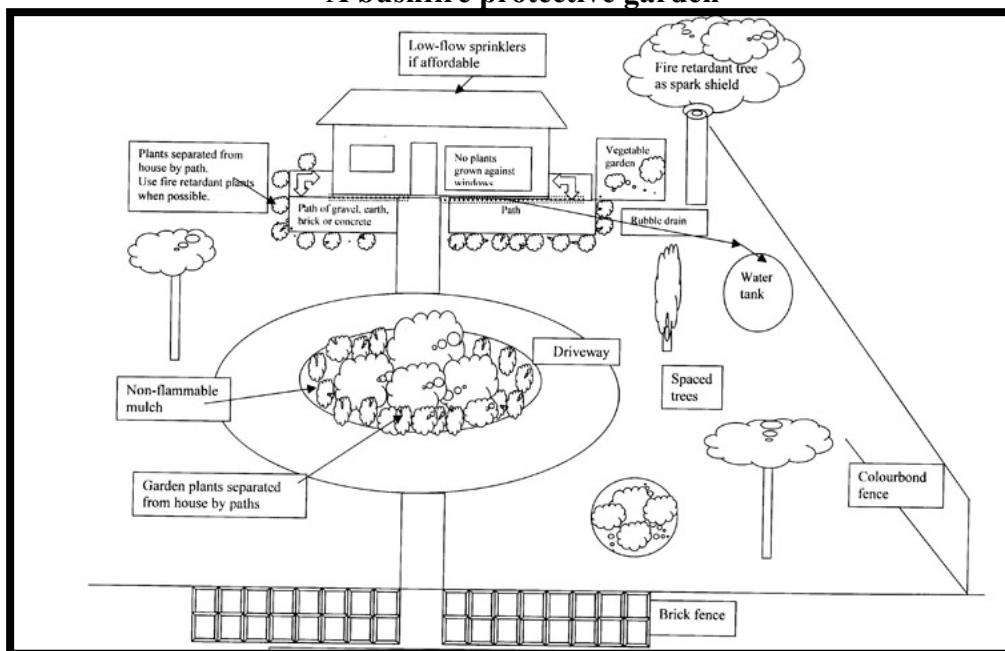
Mulch with decomposed humus, granitic sand, rock crushings or pebbles. Straw and pine chips are highly flammable. Each pine chip can become an extra wind-blown ember. Dig it in or cover to 77 mm with non-flammable mulch or earth.

Cover plastic weed-mats likewise.

Remove vines from flammable walls/pergolas. They catch and hold embers.

Cover vine-covered or fibre-glassed pergolas with metal flywire.

A bushfire protective garden



Clear and clean up (Distances depend on closeness to dense bush, grassland or crops.)

- Clear 30-40m around house, sheds, tank, machinery, fuels, emergency stockyards
- Clear undergrowth beneath trees for 30-100 metres between buildings and bush.
- Add half to one metre for every degree of slope.
- Homes near dense bush can need up to 300 m of undergrowth removal.
- Clean up ground litter for 10-300 metres around the house.
- Houses on hillsides, ridges or very rough ground may need a 200-300m clean-up.

The Complete Bushfire Safety Book has eleven pages of fire retardant plants (native and introduced) listed with their indigenous origin, mature height, drought resistance and weed potential. This is within a whole chapter devoted to the bushfire safety of gardens.

The definitive work on household protection.
(Random House)

First published 1986



Specially designed to make it easy to make your bushfire safety plan.
(CSIRO Publishing)

'This book ranks with 'Bushfires in Australia' as a most important contribution to bushfire safety.' David Packham OAM, bushfire scientist.

'Your book has been a very important reference for us from the design and building stage. It was critical in helping to deal with the wildfires on Black Saturday. Our house is still here.'
Householder: Buxton/Taggerty.

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