

the firewise garden



Large, fleshy leaves, nicely spaced trees, careful choice of mulch... there are many factors that help make a garden less flammable, explains **TIM ENTWISLE**

All plants burn. So do most houses. But in a fire-prone area, what we plant in our gardens, and what we build, can be a matter of life and death.

A key recommendation from the 2009 Victorian Bushfires Royal Commission, established in response to the Black Saturday bushfires that killed 173 people and destroyed more than 2000 homes and gardens, was the need for guidance on fire-resistant garden design and plants.

Two years later, the state's Country Fire Authority (CFA) provided information and

advice in a 64-page online publication called *Landscaping for Bushfire: Garden Design and Plant Selection*, in which plants are described as being either fire-resistant or fire-retardant. A fire-resistant plant will survive fire but may be highly flammable, whereas fire-retardant species burn slowly or may be slow to ignite.

At this point it's worth repeating that, while various plants respond differently to fire, *all plants burn!* Still, some plants are, to use CFA's terminology, firewise. The species you use and how you display them will depend on your soil and climate, and more fickle things such as personal taste.

balancing void & mass

There are some basic design principles that help to protect homes and gardens from fire, including breaking up the continuity of vegetation. In the jargon of William Guilfoyle, who designed Royal Botanic Gardens Victoria, Melbourne Gardens, that means creating large voids of lawn between the areas of garden mass.

To entirely fireproof your home, a field of concrete or a well-kept lawn stretching up

LEFT

Although they contain oil, lillypillies are thought to be less flammable than a number of other popular plants, such as murraya or melaleuca.

to 50m from your home would be best. But few of us want to live with that outlook. Better to move into an apartment and turn your back on the beautiful bushland.

Adding a little risk, but not too much, you can include some well-spaced trees. Choose species that have smooth bark (but not bark that will ribbon and flake in summer, such as that of manna gum), as well as an open canopy and not much leaf drop in summer. Prune off the lower branches for good separation between the ground and the canopy.

leaf flammability

Plants with large, fleshy leaves are likely to be more fire-retardant. The more water in the plant, the better. What you don't want is oil and waxes.

Most species in the families Rutaceae or Myrtaceae – the former including boronias and murrayas, the latter eucalypts and melaleucas – are likely to contain flammable oils, so it's best to avoid these. That said, citrus (Rutaceae) and lillypillies (Myrtaceae) are often recommended, presumably because they have less oil, or less-flammable oil. The heaths, in the family Ericaceae, can be very waxy, and are therefore prone to burning.

Good trees to consider are crepe myrtle, brachychiton, strawberry tree, fruit trees and figs. My favourite garden tree, Persian ironwood (*Parrotia persica*), has the winning trifecta of deciduous leaves in autumn (and little leaf drop at other times of the year), smooth bark, and an open canopy.

Consider rainforest plants, too, including proven performers such as pittosporum and lillypillies. Avoid the common sweet pittosporum, as this is an aggressive weed, and it's also quite flammable when dry. ▶

BUSHFIRE RECOVERY

Some dryland wattles, such as the silver mulga (*Acacia argyrophylla*) and sandhill wattle (*A. ligulata*), have fleshier leaves and seem to be more fire-retardant.

tidying up

What you do around trees and shrubs is also important. Mulch keeps plant roots cool and moist in summer, but most of the best and most attractive mulches are flammable. Not all of us want to use gravel or scoria. As a compromise, keep the mulch layer slim, which is probably best for water penetration anyway, and don't lay it fresh during summer.

Keep grass cut relatively low, albeit in opposition to what you might want to do to save water. Look for a compromise. The CFA guide suggests keeping lawns no higher than 5cm near the house and 10cm further away. General garden maintenance helps, too. A rambunctious and unruly garden might be good for the soul, but it's also good for the spread of bushfire.

When choosing groundcover plants and small shrubs, those from saline areas are a good place to start, particularly if

you live in a coastal area. Saltmarsh plants often have fleshy leaves, possibly to dilute the salt in the soil, and the salt itself might be a fire retardant. Consider boobialla (*Myoporum* spp.), eremophila, chenopod and pigface for your garden.

cost benefit

I've focused here on Australian plants because we tend to think of them as quick burners, but the basic principles apply to any plant in your garden. I like the very practical advice on the website of the Australian Plants Society (Victoria): "When fire restrictions permit burning off, throw a small sample of foliage from each tree and shrub onto a fire and see how much it flares up. Consider removing plants with foliage that flares fiercely."

In the end, as with the choice of living in a bushfire-prone area in the first place, what you grow in your garden reflects the risk that you and your community are willing to bear for enjoying the beauty and health benefits of the bush. Select and plant carefully, but remember, *all plants...* and you know how that ends. **GA**

MORE INFORMATION

Here are some useful online resources to help you plan your firewise garden.

● Country Fire Authority

The Landscaping for Bushfire webpage has sample garden plans (such as the one at right) with suggested plants for rural, suburban, hills and coastal situations. You can also download *Landscaping for Bushfire: Garden Design and Plant Selection*, and choose suitable plants using the online Plant Selection Key. cfa.vic.gov.au/plan-prepare/landscaping

● Blue Mountains City Council

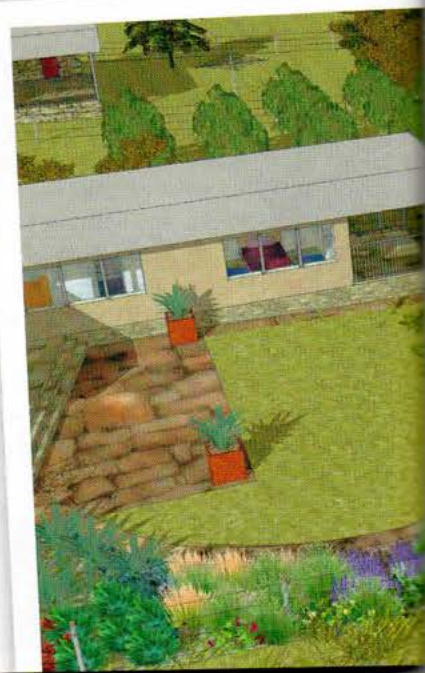
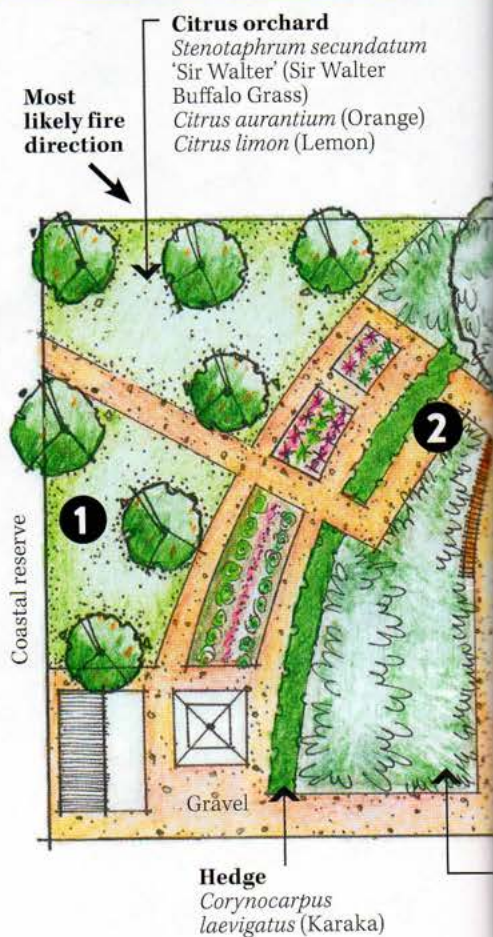
The downloadable guide *Best Local Native Plants for Use in Bushfire Prone Locations* contains advice on how and what to plant in the Blue Mountains region, including a list of plant species. bmcc.nsw.gov.au/documents/guide-best-local-native-plants-for-use-bushfire-prone-locations

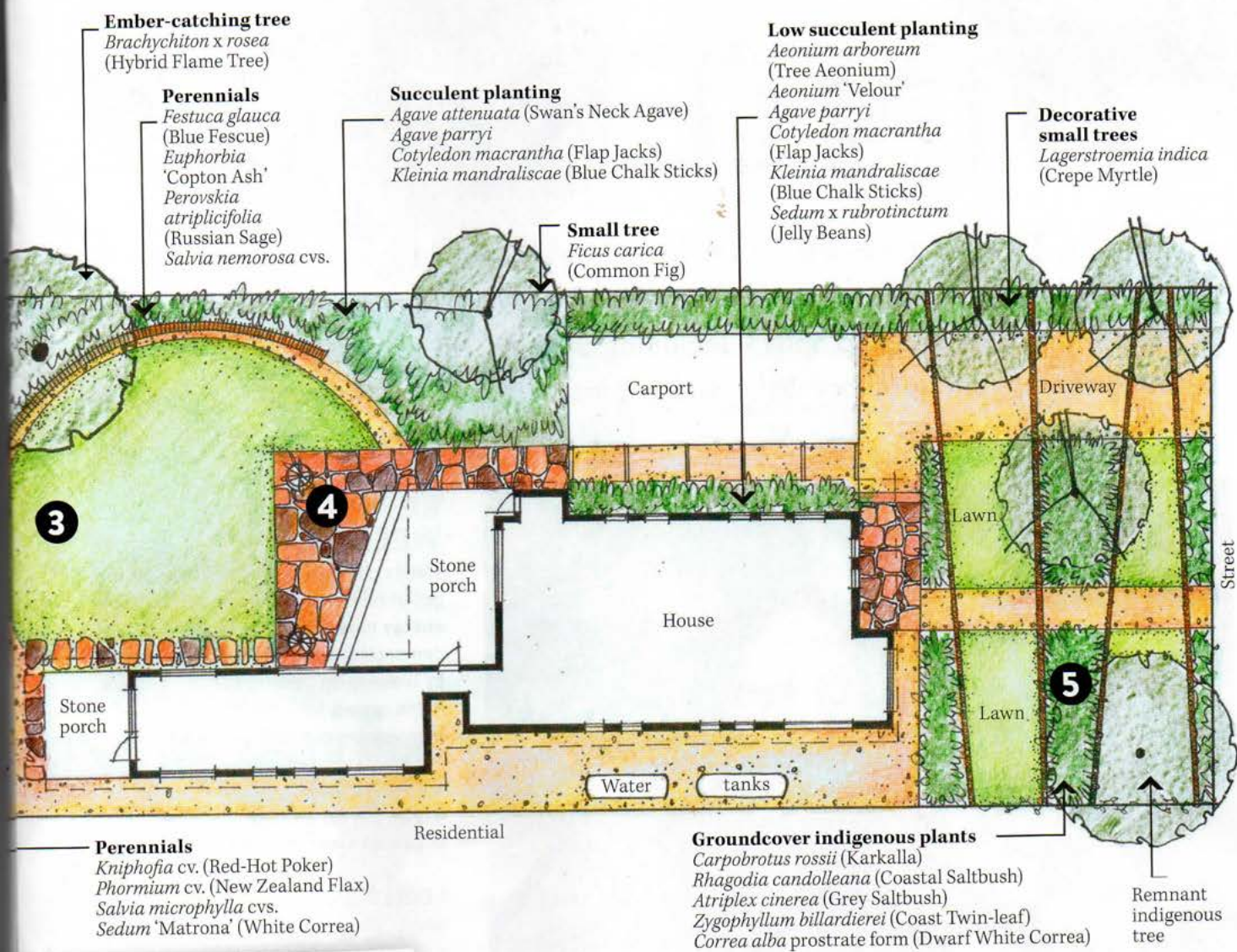
● Australian Plants Society (Victoria)

This page has a long list of fire-resistant and fire-retardant plants. apsvic.org.au/fire-resistant-and-retardant-plants

SAMPLE DESIGN

This 'coastal reserve' garden plan is one of several published by the Country Fire Authority. Visit cfa.vic.gov.au for more.





ILLUSTRATIONS OWEN GOODING, COUNTRY FIRE AUTHORITY (CFA)

- 1** Create space between tree canopies to help prevent fire spreading from tree to tree. There should be at least two metres between mature canopies.
- 2** Use gravel paths and lawn to provide separation between garden beds. This breaks up the continuity of vegetation within the garden to prevent fuel corridors.
- 3** Locate areas of low fuel such as lawn or a well-maintained vegie garden between the house and the most likely direction of a bushfire.
- 4** Use paving, gravel or stone around the house to keep plants away from windows, doors and other vulnerable parts of the building.
- 5** Avoid planting shrubs under trees. Instead use groundcovers with low flammability and low-growing succulents under trees to provide maximum separation between fuel at the ground level and the tree canopy.

For more details, and to use CFA's online Plant Selection Key, visit cfa.vic.gov.au/plants, or call the Victorian Bushfire Information Line on 1800 240 667.