

Local Trees for Biodiversity in the South East

FORESTRY FACT SHEET NUMBER 18

WHY PLANT LOCAL NATIVE TREES?

Planting better adapted local trees can lead to higher survival rates which will avoid the costs associated with replanting.

There are thousands and thousands of different types of trees on our planet. Many of them have evolved over time to live in specific climatic conditions, from the snowy alps to the fringes of dry deserts and harsh coastal dunes. Those that adapted well survived and thrived, resulting in unique assortments of species in each area. Species that have evolved in the local conditions are better able to cope with local climates, and often have greater tolerance to local pests and diseases.

Local fauna rely on local tree species.

Every species of tree has evolved with a particular soil type or topography and a certain tolerance of shading or sun exposure, as well as an intricate network of interactions with flora and fauna. Over the life of a tree, millions of insects, birds and mammals seek shelter in their branches or obtain food from their wood, leaves, sap or flowers. Such visitors also perform important pollination functions as they travel from one tree to the next carrying pollen on their fur, feathers or feelers. Even after a tree died, its decaying wood provides habitat for insects that feed echidnas and lizards, and eventually nutrients return to the soil for other plants to use. Local trees provide the resources that local fauna may need; hollows required for raising young, bark needed for shelter, leaves and twigs required for building a nest and pollen at a certain time of year.



Local trees can provide critical habitat for endangered wildlife.

Some native animals are dependent on specific food sources. Providing such resources on your property can help ensure the survival of local animals, and even some of our region's rare and endangered fauna. One example is the Red-tailed Black Cockatoo which in the South East of South Australia relies on seed from brown stringybark and buloke trees. Such trees, planted on farms, can in time provide critical feeding habitats for these nationally endangered birds.



W Bigg

Using local tree species grown from locally collected seed will ensure that you are not planting known or potential environmental weeds.

Many Australian native tree species evolved within restricted geographic ranges, perhaps along the coast, or found on hill tops where they outcompeted trees that were better adapted to valleys. Such species can become pests if planted in other parts of Australia, even though they are considered native plants. Some examples of potentially weedy natives include Cootamundra wattle, Coastal tea-tree and Swamp she-oak.

Using local provenance seed for planting conserves the unique genetics of our local biodiversity, helping to maintain long-term resilience to disturbances and climatic changes.

The information in this publication can be provided on request in an alternative format or another language for those who need it



Government of South Australia
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The unique genetic makeup of local trees is often referred to as 'local provenance', with different provenances sometimes occurring in the same species growing on the next ridge, or in a different valley. Trees from different provenances do not always successfully mix, and sterile plants can be produced from crossing different provenances. It's not always possible to tell different provenances by looking at the plant, so source seed from parent plants that are not too far away from your property and reflect the conditions of your planting site, for example altitude, soil type, drainage and frost tolerance. Where possible, encourage natural regeneration by fencing out stock and controlling weed competition.

Local forest types are recognised as being a unique identifier for a region, contributing to the wellbeing of local communities.

The unique ecology of each area is also reflected visually in the unique associations of plants and animals that each region supports. Whether you grew up playing in mangrove forests or under stately red gums, such associations give a 'feel' to an area that tells us we are home again. Recent research has shown that the positive psychological effect of familiar natural spaces is significant and still highly undervalued by society.



T Horn

Conservation of the complex biodiversity of remnant vegetation and assisting with natural regeneration is always preferable to revegetation.

Some properties contain remnants of what might have been found across the property. Such patches can contain a complex web of interconnected species of plant, animal, fungi and bacteria – and we have no idea how to totally recreate them elsewhere. Allowing for natural regeneration adjacent to such remnants can be a slow but it will be a rewarding process, allowing for much of the

biodiversity contained within the remnant to extend out and recolonise the area. This is particularly so for areas that may not have trees, for example grasslands, wetlands, sedgeland or shrublands. Revegetation with trees in these areas can severely alter the habitat and compromise the survival of local fauna. In other areas, revegetation with local trees and where possible local understorey is a small way to rebuild some of the structure of a forested remnant, but there will always be elements of the biodiversity that are not recovered through artificial revegetation.



N Hunt

Trees, including local trees, provide many other benefits on your property and beyond.

Local trees also offer all of the benefits that trees in general are known to provide. Such benefits include shelter and shade for stock, protection from wind, mitigation of water logging and control of salinity in areas with high saline watertables. In many cases trees will increase real estate values through visual amenity and screening of undesirable views. On a wider scale, trees produce oxygen, sequester carbon, help control temperature and reduce noise and air pollution.

Revegetation with local species that increase structural and habitat complexity can attract a greater diversity of local wildlife to your property.

While there will be many fauna species that utilise local trees planted on your property, a greater number will be encouraged where there is a diversity of habitats such as fallen timber, decaying wood and natural rocky outcrops. Planting local understorey species that provide habitat for insect food sources, berry or seed resources at different times of the year as well as shelter and protection from predators, will also benefit fauna diversity. Hollows are utilised by many local species of insects, lizards, possums, bats and birds. However, hollows can also host pest species such as

introduced honey bees and starlings. If you install nestboxes to increase the number of available hollows, make sure you check them regularly and remove unwanted guests, without disturbing welcome visitors. Greater diversity of wildlife will be encouraged if there is a variety of vegetation associations on your property; areas of open grassland, wetland, shrubland and a few different types of woodland.



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Wildlife attracted to your property by planting local trees can provide many useful and often economic benefits.

Insects are found in the canopies of local trees, many of which help to pollinate crops. Insectivorous birds are attracted to the shelter and food source provided within the tree canopy and with understorey planting many of these birds can find all the resources they need to nest and raise their young. These birds help to reduce numbers of insect pests on properties. Tall trees can be used by wedge-tailed eagles, which have been known to take rabbits and foxes. The effect on the observer of a stirring soundscape created by a rich bird diversity, is often not fully appreciated until the same landscape is observed with unnatural silence. Recent studies in western Victoria have demonstrated that woodland birds return to areas where the percentage of tree cover has increased, even at large distances from remnant vegetation.



Ringtail possum in its drey - T Horn

Local tree species can provide for connectivity in the landscape, allowing animals to move around to find food, shelter or a mate.

Some animals require the resources that trees provide to enable them to move through the landscape. Being able to rest in an isolated paddock tree or forage for insects in the canopy can encourage a host of woodland bird species that do not use open paddocks. Some animals utilise the interface between paddock and pasture, and so benefit even from single paddock trees. For animals that avoid open paddocks, trees provide a safer route for their travel, helping them to stay off the ground away from predators like cats and foxes, or avoid detection from predators in the air. Species that are edge shy may require a larger block or patch of revegetation in order to feel secure enough to move through your property. Sugar gliders (pictured below) are hesitant to venture onto the ground, so require trees for connectivity.



ForestrySA

See PIRSA Forestry's website for more information on planting trees on your property www.pir.sa.gov.au/forestry

For more information, contact PIRSA Forestry on 8735 1232



N Hunt