

Introduction

Benefits to property and local wildlife can be achieved by fencing isolated trees or small clusters of paddock trees.

This factsheet provides guidelines for protecting paddock trees as part of an Environmental Works Grant, Sustainability Land Management Rebate Scheme or Land Management Plan.

Background

Large hollow-bearing trees - usually eucalypts - provide important habitat for wildlife. However it can take at least 60 to 80 years for trees to grow to a sufficient size to develop hollows. Protection of existing, old paddock trees is especially important until replacement trees have grown sufficiently to develop hollows.



Typical paddock tree in Whittlesea

All trees have a maximum lifespan and will naturally die off over time. Within intensively grazed landscapes eucalypts may not regenerate as livestock often graze on new seedlings that emerge.

With this lack of natural regeneration, many paddock trees are not being replaced in the landscape when they are lost.

In addition, routine agricultural practices can lead to the premature death of old trees.

- Cultivation of soil close to the tree can damage surface roots and reduce the tree's ability to access water and nutrients.
- Pasture improvement under the tree canopy, through adding fertilizers, changes soil nutrient levels- promoting growth of exotic pasture grasses which compete with existing trees and emerging seedlings for water and nutrients.

- Livestock camping around trees can heavily graze and compact the soil. This reduces water infiltration and creates bare ground which is susceptible to erosion. Stock graze emerging seedlings and can ringbark the existing trees. Soil fertility is also altered as a result of manure build-up under trees.



Livestock camping under trees

Benefits of Protecting Paddock Trees

Paddock trees are significant in agricultural landscapes for biodiversity conservation. They provide:

- Habitat for birds, mammals (including possums and microbats), insects and reptiles.
- Food such as nectar, foliage and insects for animals.
- Habitat links for animal movement between remnant vegetation patches.

The benefits they provide to agriculture are also important, yet this is often not recognised by landholders. These include:

- Habitat for microbats and birds which help control insect pests.
- Livestock protection from extreme temperatures and winds, and soils from wind erosion.
- Large trees can reduce waterlogging and salinity through pumping of subsurface water.
- Trees amongst pastures recycle nutrients leached beyond the pasture root zone, and release nutrients again through dropped leaves.
- Mature trees provide seeds to grow new seedlings which will eventually replace the parent trees.

Without adequate protection, routine agricultural practices will continue to have a negative impact on paddock trees, contributing to their premature death and gradual loss from agricultural landscapes.

Fencing Guidelines

Permanent fencing around paddock trees is important to protect them from the impacts of farming and to increase longevity, and protect seedling establishment.



Paddock tree protected through the Environmental Works Grant

Fence placement and design is important to maximise tree health and benefit. At a minimum:

- The fence should be **3 metres outside the canopy** to allow room for natural regeneration and protection of the root zone.
- **Fencing should be permanent** and not at risk of damage by stock, and include properly constructed corner and end assemblies.
- **Do not use barbed wire** – use a minimum of 5 strands of strained wire to ensure the fence is wildlife friendly.

Consider the use of existing fences where possible to reduce costs. For example, a diagonal fence between two existing fences can be used to protect a tree in the corner of a paddock

Ongoing Management

The area protected around the paddock tree will need to be maintained on an ongoing basis. The following maintenance activities will need to be undertaken:

- grass slashing to reduce fire risk.
- control of environmental and noxious weeds.
- retaining fallen limbs on the ground to provide additional habitat; and, protection of emerging seedlings.



Natural regeneration around protected River Red Gum-ongoing slashing is required to control grasses

Further Information

City of Whittlesea Sustainable Land Management Program: www.whittlesea.vic.gov.au/sustainability-and-waste/sustainable-land-management

