



TreeNote

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Rectifying parrot damage in eucalypts in the greater than 450 mm rainfall zone of Western Australia

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Introduction

In parts of southern Western Australia, Port Lincoln ringneck parrots are a serious pest of blue gum (*Eucalyptus globulus*) and other eucalypts. The parrots strip bark from the trees' leading shoots, often causing them to wither and break off. Many damaged trees develop bends or forks that reduce their commercial value.

Strategies to minimise economic loss from parrot damage include:

1. Preventing damage from occurring (see TreeNote No. 26 'Parrot damage in agroforestry'),
2. Rectifying damage after it occurs, by:
 - *culling* permanently removing damaged trees
 - *form pruning* removing multiple stems from damaged trees to improve their form
 - *coppicing* cutting down damaged trees and allowing them to regrow from the stumps
(See following descriptions of treatments to rectify damage.)

Treating trees after they have been damaged is most likely to be worthwhile for growers who can use their own labour to add value to small areas of damaged trees (especially sawlog stands).

When is treatment profitable?

Rectifying parrot damage is only profitable if the treated trees:

- will meet a buyer's specifications when harvested
- will increase in value by more than the cost of treatment
- are safe from further economic damage by parrots

At first glance, preventing parrot damage would seem to be a better option than rectifying the damage after it has occurred. However, for growers with small areas of trees, the cost per hectare of conducting an effective parrot control program can be prohibitive.

Typical treatments for three scenarios

- Light damage: Do nothing. The trees may 'grow out' of the damage by the time they are harvested

(especially pulplogs). In stands managed for sawlog production, damaged trees can be removed during normal thinning.

- Moderate to heavy damage: Cull the most severely damaged trees, and form prune the remainder.
- Severe damage: Clearfall the stand and allow new coppice growth from the stumps.

Always consider the 'do nothing' option, especially if the economic benefits of treatment are small, or uncertain.

Log specifications

To be marketable, logs must meet a buyer's specifications for length, straightness and lack of defects.

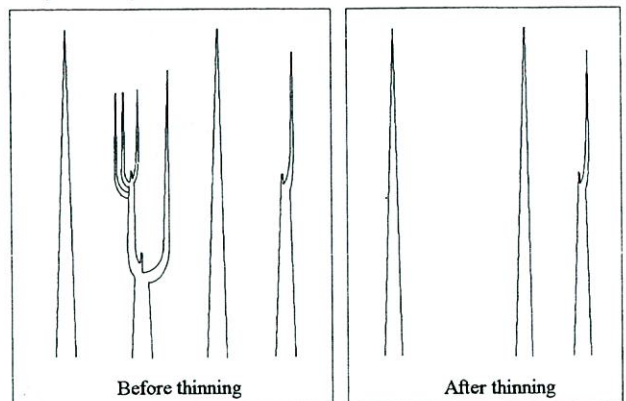
For pulplogs, current harvest practice is to cut logs into 5 to 6 m lengths. Logs as short as 3 m are accepted, but may cost more to harvest and handle. Logs should be reasonably straight for ease of handling and processing.

Sawlogs must be straight and free of defects such as large knots. Short logs (especially those shorter than 2.4 m) have a restricted range of uses, attract lower prices, and are harder to sell than longer logs.

Culling (or thinning)

What is it? Removing badly deformed trees that will not produce marketable products.

Why do it? The remaining trees grow faster without competition from those that are culled.

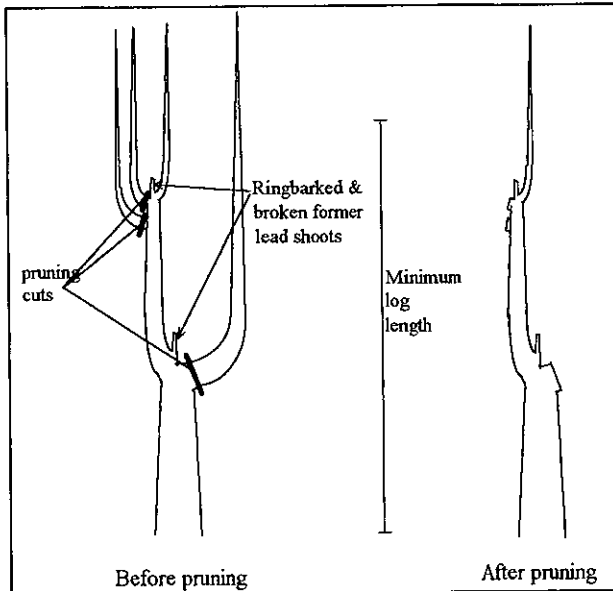


See TreeNotes and other WA farm forestry information at www.agric.wa.gov.au/programs/srd/farmforestry/

Form pruning

What is it? Removing forks from damaged trees to make them single-stemmed.

Why do it? To produce long straight logs which meet commercial specifications.



Retain the left-hand stem, even though it has another fork higher up which also needs pruning. Remove the right hand stem, because it would produce a large kink in the mature trunk.

Beware! Removing unwanted forks also removes foliage and may reduce the trees' growth rate. (A useful rule of thumb when pruning is to remove no more than half the foliage.) When form pruning, remove forks in the trunk only, and leave other side branches if necessary to maintain adequate foliage.

Nothing is gained by form pruning the top 2 m of damaged trees, because further parrot damage may occur there. Also, some trees with damage near the top re-establish a single leading stem unaided.

Timing of form pruning

Form prune trees when they are at least 2 m taller than the minimum log length wanted. For example, to produce logs at least 3 m long, form prune trees once they are over 5 m tall (about two years old for blue gums). Prune forks up to 3.1 m, to allow for a stump 0.1 metre high. To produce 6 m logs, form prune trees when they are over 8 m tall (about three years old for blue gums), removing forks up to 6.1 m.

If trees are treated as early as possible:

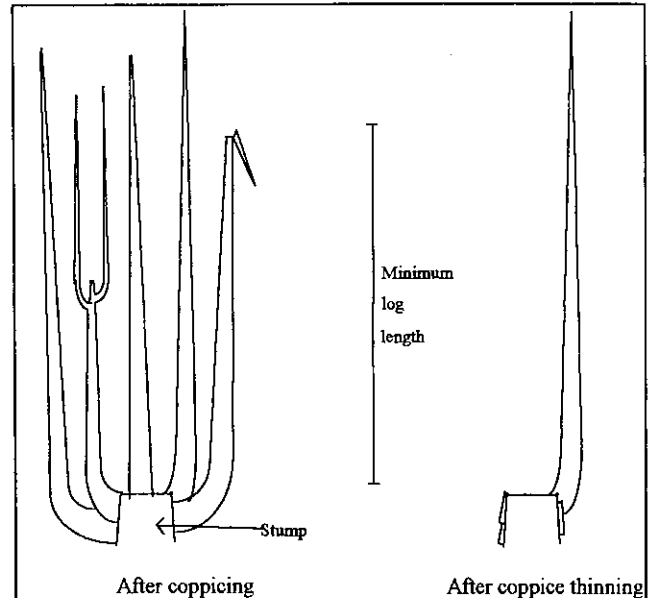
- they have longer to respond to the treatment
- the job is easier and cheaper (smaller trees)

- deformities or pruning scars are smaller
- all new growth is concentrated on stems with commercial potential

Coppicing

What is it? Cutting down an entire stand, to let it regrow from the stumps.

Why do it? To make a fresh start at growing commercial timber.



The largest regrowth stem with good form is retained.

This radical treatment suits badly damaged stands of trees that are not worth growing to harvest - as long as further parrot damage can be prevented while the trees regrow. Once the regrowth is more than 2 m taller than the minimum log length, thin to one or two strong, straight stems per stump.

Coppicing can be done at any age, except perhaps in the first year, when the stumps may be too small to produce strong coppice. Delaying the operation can be costly, as more growth is written off, the job is harder to do, and the time to harvest is lengthened.

Acknowledgment

This TreeNote draws from Peter Ritson's report to blue gum growers, 'Silviculture for managing parrot damage to bluegum tree crops', September 1995, funded by the Commonwealth Bureau of Resource Sciences (Vertebrate Pest Program), the Department of Conservation and Land Management, Bunnings Treefarms Pty Ltd and Australian Eucalypts Ltd.

TreeNotes

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