



Growing lemons in Australia- a production manual - Readers' Note

This document is part of a larger publication. The remaining parts and full version of the publication can be found at:

<http://www.dpi.nsw.gov.au/agriculture/horticulture/citrus/lemon-manual>

Updated versions of this document can also be found at the above web address.

This document is subject to the disclaimers and copyright of the full version from which it is extracted. These disclaimers and copyright statements are available in the appropriate document at the above web address.

10. Canopy Management

Introduction -----	2
Tree growth-----	2
Lemon tree growth and structure -----	3
Pruning stages -----	3
Other pruning techniques -----	4
Pruning tips -----	5



Photo by Greg Moulds
Hedged trees

INTRODUCTION

Pruning is used for a range of reasons including:

- to manipulate tree form, shapes and growth;
- to manipulate flowering, fruitset and cropload;
- to reduce tree height and width;
- to remove dead, diseased, broken, weak or old branches;
- to open up the tree canopy;
- to remove unwanted regrowth or strong suckers;
- to rejuvenate old trees;
- to reduce biennial bearing.

TREE GROWTH

Citrus trees typically have 3-5 growth flushes a year depending on growing conditions. Each new growth flush is added onto the previous growth flush, resulting in a drift of the young bearing wood to the outsides of the tree canopy. Over time this results in larger trees with increased shading inside the canopy resulting in most of the fruit being carried on the tops and outsides of trees.

Light is critical to tree and fruit growth and development. The green leaves harvest the sunlight to produce carbohydrates and sugars which are then transported to the sites where they are needed – these are the buds, flowers and fruit. Improving light penetration into the tree canopy improves tree growth, productivity, yield and fruit quality.

The density and orientation of plantings also impacts on light penetration in the orchard. Generally the closer the planting the quicker shading will become a problem. An east-west row orientation results in more shading to the western and southern sides of trees.

Strong bearing branches tend to produce larger fruit. They also transport water and nutrients more efficiently throughout the tree. Pruning aims to encourage this new strong growth.

Citrus trees exhibit apical dominance, meaning that the top bud suppresses the shooting of buds below it. One way to stop this effect of apical dominance is to prune off the shoot tips (tip pruning).

The best time to prune is normally after harvest and before bud break.



The new growth on lemons is typically reddish