

Almonds in the garden

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Division of Plant Industries

(Reviewed October 2002)

The almond, *Prunus dulcis*, is a small, hardy, deciduous tree thought to be a native of the Mediterranean area. It grows up to 4 m high, though seedling trees can grow much higher. In New South Wales almonds grow best in the Western Slopes region and in the Murrumbidgee Irrigation Areas. They can also be grown on the slopes of inland river valleys and in inland coastal areas such as around Penrith and Windsor, where the climate is warm with a dry summer, winter rainfall and an early spring. The colder highlands and humid coastal areas are unsuitable for nut production.

VARIETIES

Almond cultivars are classified into three groups: papershell, hardshell and softshell. Softshells can be easily broken with your fingers. Almonds generally require cross pollination however the variety "All in one" is the first self fertile variety available in Australia. Johnstons Prolific, Nonpareil and Brandis Jordon are suitable varieties but all require cross pollination.

LOCATIONS

Although almonds need dry summer conditions, prolonged dry spells will shrivel the nuts. Too much summer rain and associated humidity, however, will encourage poor nut development and fungal diseases. Ideally, almonds should be grown

on a hill or hillside to ensure good air circulation and surface drainage; this is not often possible in a garden, but a raised bed will provide good surface drainage.

Light to medium, loam soils are best; heavy clay soils or shallow soils overlying clay sub-soils are unsuitable.

PROPAGATION

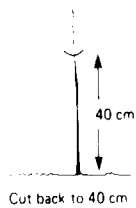
Selected rootstocks are used onto which suitable almond varieties are budded between late January and mid-February. Almonds can be grown from seed, but seedling trees produce variable, poor quality crops and the nuts may have a bitter kernel. Selected almond varieties are available from nurseries.

PLANTING AND CARING

Plant young trees early in June in an open, sunny position at least 5-6 m from other trees. Dig holes that are large enough to take the roots without crowding. Shorten the roots to about 20 cm and cut away all damaged parts, then open out and spread the main roots. When the hole is half filled with soil, firm the soil around the root ball to compact it, then put more soil in, firm down, and top up to surface level with loose topsoil.

Water regularly throughout the growing season — from November to January. Soil moisture should be maintained to prevent kernel shrivell.

At planting or in first winter

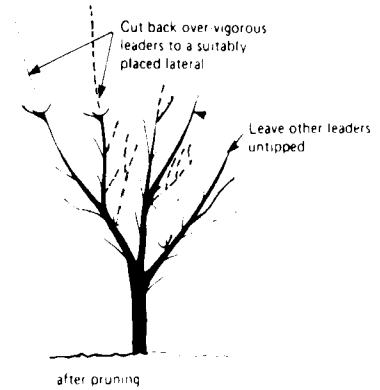
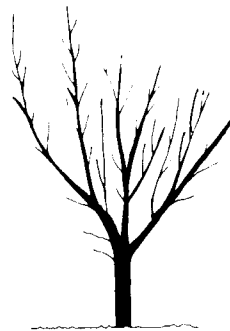


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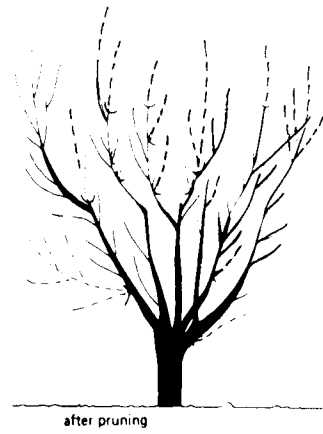
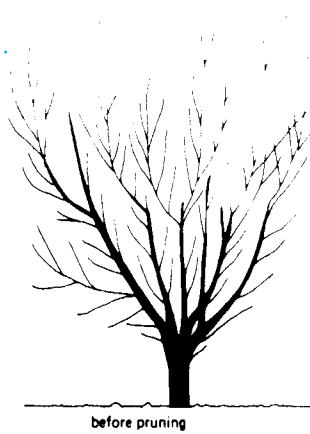


if three suitable main limbs exist, cut each of them, and the main stem, back to a suitable bud. Also remove any small, weak branches

Second winter



Third winter and onwards



NUTRITION

It is not normally necessary to fertilise the tree at planting, but if fertiliser is used at this stage, make sure none of it comes in contact with the roots or trunk: do not place it in the hole, but spread it on the ground away from the trunk.

Once the trees are mature they should be fertilised regularly throughout the year. Four or five weeks before blossoming (in June or July) apply 0.7-1 kg of a nitrogen fertiliser, about 27% total. Alternatively, apply a 5 cm deep mulch of well-rotted poultry manure beneath the tree, but no closer than 30 cm to the trunk. About six weeks after blossoming, apply 2 kg of ammonium sulphate, and at the end of February give another application of poultry..

PRUNING

Almonds have a very short dormant period, so pruning must be done in early winter to avoid damaging the tree.

After planting, cut back single-stemmed trees to about 80 cm high to encourage the development of side branches; these trees will be one season behind those that already have branches. If three suitable main limbs exist, cut these back, with the main stem, to encourage the growth of strong shoots during the following season. In the second winter retain six of these shoots to form secondary limbs. During the third winter these can be further multiplied to a maximum of nine to twelve limbs. Almond trees require between twelve and fourteen secondary limbs but some of these may not appear until the fourth season.

PRUNING HINTS

If you are pruning to encourage new growth, make cuts just above an outward pointing bud or shoot.

Cut out *all* dead or diseased material; don't leave stubs.

Remove crowded or crossed branches.

If any young shoots arising from primary or secondary limbs are too vigorous, remove them before they grow into strong limbs and cause over-crowding of the framework. Use discretion, however, as a tree with plenty of main shoots usually makes stronger growth than one thinned heavily, and shoots lost through wind damage can be more easily replaced.

In the first few years after planting carry out thinning in spring and early summer. This involves pinching out the growing points to check the growth of too-vigorous shoots or those not required for the framework of the tree. Any unevenness in the tree's growth can be corrected by pruning the vigorously growing side to about one-third of its length while leaving the weak side untouched. As the growing tips of the weaker limbs are then higher than those on the vigorous side, more growth occurs on the weaker side.

When pruning a tree, keep in mind its cropping habits, especially as it approaches bearing age. The almond bears on one-year-old laterals and spurs produced on older wood.

HARVESTING

Trees will start to bear in approximately six or seven years. Nuts ripen from February to early May, with nuts in the centre of the tree ripening last. Harvest the nuts when the hulls begin to open; do not harvest before as the nuts will be difficult to dislodge and you may damage the bark or spurs.

PESTS AND DISEASES

Bryobia mite is the most serious almond pest in this State. Adequate coverage with dormant oil sprays during the winter will usually control this mite. Almonds are also attacked by some of the stone fruit insect pests.

The most significant diseases are fungal; shot hole, rust and brown rot are particularly common.

Bacterial Gummosis can be common problem on poorly drained sites. Control measures include minimising pruning cuts and applying regular copper based sprays from autumn to spring.

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DISCLAIMER

The information contained in this publication is based on knowledge and understanding at the time of review August 2002. However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of New South Wales Department of Agriculture or the user's independent adviser.