

Young Tree Management

FROST PROTECTION

During winter, secure frost cloth over the top of the young tree's windbreak shelter.

SUNBURN PROTECTION

Tree trunks can be painted to prevent sunburn. A common painting formula is 50% diluted, white, acrylic, water soluble, outdoor paint. This solution can be applied with a knapsack sprayer or directly with a paintbrush.

MULCH

Apply a 10 – 15 cm layer of coarse mulch at planting and annually in Spring from 10 cm from the trunk to the edge of the windbreak shelter.

IRRIGATION

Young plants are particularly sensitive to moisture levels – both insufficient and excess water can cause the roots to become compromised and the canopy to wilt. Potting mix material can dry out quicker than the surrounding soil.

Irrigate in large, infrequent events rather than small, frequent events. This allows the soil to dry out sufficiently between irrigation events.

Sprinkler heads should have a throw range which matches the tree size.

15 cm tensiometers can be used to indicate when to irrigate. Common thresholds used are:

- 20-25 kPa on sandy soils
- 30 kPa on loam soils
- 50 kPa on clay soils

As a guide, young avocado trees require approximately the equivalent of 6-11 mm of rainfall per week.

WEEDING

Hand weed the area within the windbreak shelter. Herbicides should not be used inside the shelters at any stage. Non-residual herbicides can be used outside the shelters if needed.

NUTRITION

Once the tree has been planted, it is important to implement a nutritional plan. Young trees can usually be fertilised with an NPK mix for the first few seasons until they start bearing. Other elements may need to be applied if they are at low rates in the soil, as identified by a soil test.

Base nutrient guideline for young trees

Tree Age	Drip Area (m)	N (g)	P (g)	K (g)
1	0.5	42	21	75
2	1.5	84	42	150
3	2.5	126	63	225

PRUNING

Remove shoots growing from below the graft (rootstock shoots) as close to the trunk as possible.

FLOWER AND FRUIT-SET

Remove flowers and fruit in the first year to minimise stress to the tree and encourage growth.

PEST AND DISEASE

Pests that commonly affect young trees are six spotted mites, grass grub beetles, Fullers rose weevil, bronze beetles and cicadas. Young trees should be monitored for pests and treated accordingly.

Phytophthora cinnamomi can be an issue for young trees, particularly in replant situations where pressure is high. All young trees in a replant situation, as well as those planted in new soil but showing symptoms, should be sprayed every 4-6 weeks from autumn to spring with foliar potassium phosphonate. Symptoms include root dieback from the tips, a sparser canopy, small leaves, and light green or yellow leaves.

Verticillium wilt is a disease caused by the fungus *Verticillium dahlia* which results in a sudden wilting and browning of the leaves, which do not fall off.

ANIMAL DAMAGE

Do not graze large herbivores around young trees - they will strip young trees of their canopy. Possums and rabbits can damage the trunks of young trees – windbreak shelters can help to prevent this, and tree tubes/sleeves can be stapled around the base of the trunk.



Figure 5: Cicada damage on the stem of a young plant.