



## Olives: culinary delight BUT an environmental disaster

Olives were introduced to Australia in 1805 with the original tree still existing today in Parramatta.

By 1844, the first olives were being planted at Beaumont in the foothills of Adelaide. An olive oil industry existed in the late 1800s, but became economically unviable and many plantations were abandoned.

It is from these abandoned plantations that olives became a well established and serious environmental weed in many parts of South Australia.

It has even been labelled as the most serious woody weed in the Adelaide Hills. Several bird species and foxes are known to consume the fruit and are responsible for spreading this weed into good bushland.

### What does it look like?

European olives (*Olea europaea*) can grow up to 10 metres and form dense crowns. Branches develop close to the ground significantly reducing light levels under the canopy.

The leaves are dark glossy green on top and a pale silver underneath.

Olives flower in spring, before forming oval shaped fruits, which are green at first before turning a dark purple colour when ripe.

This species has been notorious in the past for not succumbing to the traditional cut and swab technique and the newer techniques are detailed below.

### The problems with olives

Birds and foxes eat the fruits and defecate the seeds remote from the parent plant, and because of this, seedlings can germinate many kilometres away from the original plant and often in inaccessible areas.

Once established, olives shade out native understorey species and greatly reduce soil moisture available to native trees.

Often large eucalypts can be seen with signs of stress when mature olives are at their base.

Eventually, olives can dominate an area of land resulting in a huge loss of native species that were once found there.



Cleared hillside invaded by olives. Photo from Animal and Plant Control Commission's Weed Identification Notes.

In addition, large stands of olives attract starlings, blackbirds and foxes, further aiding in the spread of this weed and increasing the number of pest animals.

### How to get rid of it

#### Hand pulling

Small seedlings can be hand pulled, but only if the soil is moist and the olives are not taller than 10-15cm.

The roots travel far underground, often twice as long underground than the plant above, so it is important to hand pull them only during the wetter times of the year.

Anything bigger must be cut and swabbed, or drilled and filled.

#### Cut and swab

Any plant from 15cm up to 1.5m can be cut and swabbed using secateurs or loppers and a Bush For Life swabber.

Cut as close to the ground as possible whilst avoiding getting dirt on the swabber. Plants with thick trunks can be cut a little higher than ground level.

After swabbing, the sides of the trunk should be scraped and additional herbicide applied to the wounds using the swabber; this provides a larger surface area for the herbicide to be absorbed.

Olives greater than 1.5m in height are best killed using the drill and fill method.

#### Drill and fill

This method was discussed in the Autumn 2002 edition of ReLeaf and an extract is printed below.

A cordless drill is used to drill a steeply angled hole into the plant's cambium layer (where sap flows just beneath the bark layer) as close to the base of the plant as possible.

This is where the most common mistake is made.

It is essential for the hole to be steeply angled into the cambium otherwise the herbicide will not be absorbed into the sap flow.

Use a 6-10mm drill bit, the choice is yours, remembering a large bit will use more power from the battery but allow more herbicide to be applied.

The hole should then immediately be filled with Glyphosate 360 diluted 1:1 with water. Some people use large veterinarian syringes to administer the Glyphosate with the appropriate chemical resistant gloves of course.

This is repeated every 2.5-5cm until the base of the plant has been circled.

If it is not possible to completely circle the plant, make two rows where you have access to the base of the plant.

Usually the plant drops its leaves within six weeks and dies within a few months.

It is necessary to monitor the plant and if it resprouts the process needs to be repeated.

An important aspect of the drill and fill method is to leave some lower branches to provide perching sites for insectivorous birds.

### Non chemical alternatives

Unfortunately, large olives still need to be treated with herbicides, however non-chemical treatments are available for smaller specimens, typically in the 15cm to 1.5m height range.

Such techniques require greater care, more vigilance and of course follow-up controls.

Smaller plants in this range can be killed by cutting below the lignotuber.

This may require very careful removal of soil to expose the small ball-like lignotuber just below the soil surface, then the olive should die and not resprout.

One Bush For Life volunteer, Ian Gardiner, has successfully killed olives at the larger end of this height range without using herbicide.

Ian's method is to cut the olive just above ground level.

He then carries a small hatchet during each site visit and inspects all the olive stumps, hacking off all the regrowth.

After several years the olive succumbs.

This method requires significant long-term commitment from the carer.

You **must** regularly visit the site and remove **all** regrowth.

If this method is used and the process neglected, the resultant regrowth will lead to a greater problem than first encountered.

### Not to be confused with....

Young olives can sometimes be confused with native apricot (*Pittosporum phylliraeoides*), sweet bursaria (*Bursaria spinosa*) and occasionally other native plants.

It can then be extremely difficult to tell them apart, particularly with native apricot. In fact it is too difficult to provide a fail safe identification method in this article.

If you are in any doubt, **leave the plant alone.**



An olive seedling.

Photo by Animal and Plant Control Commission's Weed Identification Notes.



Olives can sometimes be confused with the native apricot (*Pittosporum phylliraeoides*).

Photo by Phil McNamara.

Contact your regional co-ordinator and organise a site visit for confirmation of the species.

If there is still doubt, quite likely in some instances, **leave the plant alone.**

Olives take several years before reaching sexual maturity, and when the plant is older and larger it will be much easier to distinguish from native plants.

Remember, if in doubt **leave the plant alone.**

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