

# Control of camphor laurel (*Cinnamomum camphora*)

If you are not sure that the tree you want to remove is a Camphor laurel, crush a leaf or a piece of the bark. The Camphor smell is unmistakable.



## 1. Important facts about the plant to consider in your control program

### a. Flowering and fruiting

- \* Camphor begin to produce seed around 7 years of age, depending on their location.
- \* Fruits mature in autumn, turning black on ripening in April / May.
- \* Fruits contain a single seed.
- \* More than 100,000 fruits can be produced per mature tree.



### b. Germination

- \* Usually at least 70 % of seed is viable for the first year.
- \* Some seeds remain viable for 3 years.
- \* Germination extends over a period of 4 to 20 weeks.
- \* Seeds germinate more rapidly after ingestion by birds.

### c. Dispersal

- \* Seeds are dispersed by birds. Camphor seedlings emerge along fence lines and under other preferred bird perches. The removal of seed trees will significantly reduce the number of seedlings emerging in the locality as birds do not travel very far before dropping or regurgitating seeds.

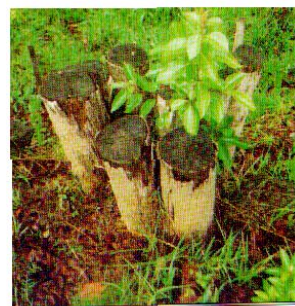
## 2. Control methods

### a. Non-chemical

- Hand-pulling of small seedlings is easy in soft soil.
- Hammering: The outer bark of the tree is hit with a hammer or the back of a hatchet, causing it to flake off. A sleeve of about 300 mm width is hammered off below the lowest branch. Every stem must be treated. This is not the same as ringbarking. Follow-up visits must check on any bark re-growing over the wound and/or suckers growing below the ring. This method will kill trees slowly over a period of 2 to 3 years. Safety glasses must be worn to avoid eye injury.
- Felling: Camphors that are felled with or without herbicide application to the stump **will** sucker and coppice. These shoots will have to be controlled for many years. (*Suckers are shoots growing from the roots, coppicing is shooting from the bark.*)
- Dozing: Mechanical methods such as using bulldozers require careful consideration of soil erosion control and are likely to require formal approval. Suckering from roots left behind and growth from seeds will require follow-up control.



Rings of bark hammered off Camphor stems



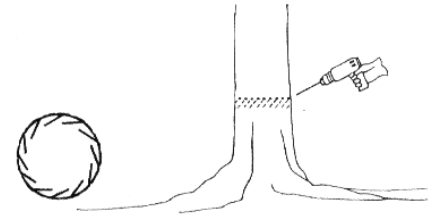
Camphor stems cut without herbicide application., showing re-growth.

## b. Chemical

*The amount of herbicide used is more important than the technique applied. Larger trees require more herbicide.*

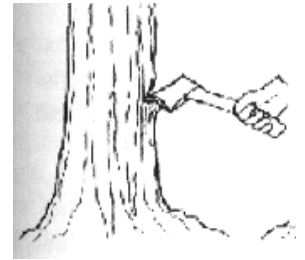
### 1. Stem injection and tree frilling:

Herbicide is applied to cuts or holes made into the trees. Two or three rows of holes or cuts around the tree at intervals of 100 mm and staggered should be made. These rows should be below the lowest branch and must be applied to every stem. Herbicide must be applied within seconds of drilling/frilling. Applicators include stem-injecting kits, squeeze bottles, syringes. They must have small tips to match the cut or hole in the tree.



**Drilling:** Use 10 mm drill bit, drill at downward angle to create a reservoir and to avoid herbicide running out of the hole.

**Frilling:** Use light sharp hatchet or short-handled axe. Cut at angles parallel to ground level.



Herbicides registered for use in stem-injection for Camphor laurels include those with an active ingredient of Glyphosate at 360 g/l or 450 g/l. These are available under a large number of tradenames:

Rate: For best results use undiluted.

Herbicides with the active ingredient triclopyr and picloram are also registered for stem injection. Check with your herbicide supplier.

### 2. Basal bark application

This method is recommended only for stems and regrowth with a diameter at the base of less than 100 mm. Herbicide is diluted with diesel and applied to the bark around the tree to 300 mm from the ground.

Herbicides registered for this method include: Garlon 600, rate 1: 60 with diesel  
Access, rate 1:60 with diesel

### 3. Foliar spray

Registered herbicides include: Grazon DS, rate: 35 ml/10 l water for trees less than 2 m tall.  
50 ml/10 l water for trees taller than 2 m.  
Garlon 600, rate: 17 ml/10 l water for trees up to 3 m tall.

### 4. Cut and paint

The stump of the stem is painted with herbicide immediately. Only on stems up to 100 mm. Oil from a chain saw and sawdust must be removed to maximise herbicide penetration and to avoid herbicide contamination and premature breakdown.

Registered herbicides include: Garlon 600, rate 1:60 with diesel, trees larger than basal bark diameter.  
Access, rate 1:60 with diesel, as above.

### **Recommendation:**

The recommended control method using herbicides is frilling and / or drilling with stem injection. It is relatively safe for the operator, avoids off-target damage and is very successful, if applied correctly. It is also of low toxicity when Glyphosate is used.

Basal bark and foliar applications require a slightly more toxic herbicide and off-target damage, if foliar application is used in a natural ecosystem, can be difficult to avoid.

Cut and paint usually causes suckering and coppicing and requires follow-up control work.

***From 1<sup>st</sup> September 2005, training in the safe use of chemicals is compulsory for commercial users of pesticides and agricultural chemicals (Pesticides Act 1999).***

***For more information on herbicide, application rates and methods, toxicity etc, please consult the products' Material Safety Data sheets, the Noxious and Environmental Weed Control Handbook (NSW DPI) or your local Council Vegetation officer.***

More detailed and in-depth information is available in the Camphor laurel Kit, from which the above facts have been collated: North Coast Weed Advisory Committee ([www.northcoastweeds.org.au](http://www.northcoastweeds.org.au))

- Noxious and Environmental Weed Control Handbook, 2004-2005, NSW Agriculture Camphor laurel AGFACT P7.6.32, 2003, NSW Agriculture
- Australian Pesticides and Veterinary Medicine Authority website: [www.apvma.gov.au](http://www.apvma.gov.au)