

Weed control in Tasmania's forests: information sheet 6

Thistles



Slender thistle infestation



Nodding thistle



Spear thistle flower



Slender thistle rosette

Tasmanian Species

<i>Cirsium vulgare</i> (Savi) Ten.	Spear Thistle/ Scotch thistle
<i>Cirsium arvense</i>	Californian thistle
<i>Carduus nutans</i>	Nodding thistle
<i>Carduus pycnocephalus</i>	Slender thistle
<i>Carduus lanatus</i>	Saffron thistle
<i>Onopordum acanthium</i>	Cotton thistle
<i>Silybum marianum</i>	Variegated thistle
<i>Cynora cardunculus</i>	Artichoke thistle
<i>Sonchus oleraceus</i>	Sow thistle
<i>Sonchus asper</i>	Prickly sow thistle

Identification

There are a number of different thistle species present in Tasmania. Thistles are an erect annual, biennial or perennial herb, which grow to 2.0 metres tall, but are more commonly 60 to 150 cm high, reproducing by seed. Some plants are single unbranched stems except near the top; others are branched and spreading from near the base. The stems are winged, which have spines, stout hairs and cobweb like hairs. The root is a branched taproot.

The flower heads are generally reddish to purple although yellow flowers are produced by some species. The heads are strongly scented and range in size from 10 mm to 5 cm in diameter, solitary or in groups of 2 or 3 at the ends of branches, surrounded by a large

number of spiny bracts, about 100 florets per head.

Life Cycle

Seeds germinate mainly after the autumn rains but a few shoot at other times when adequate moisture is available. During winter an extensive root system, consisting of several-branched fleshy storage roots, develops. Rosettes of annual plants grow rapidly through spring, reaching a diameter of about 60 cm. A flowering stem is produced in late spring of the second year and plants flower during summer and late autumn before dying.



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Status under the Noxious Weeds Act

Spear, Californian and Variegated Thistles are all declared Secondary Weeds, while Nodding, Saffron, Cotton and Artichoke are Noxious and Prohibited weeds under the Noxious Weeds Act 1964.

Control

Mechanical Control:

Cutting or slashing when the plants are in the late bud or early flower stage, may help to reduce seed production. However, because thistles tend to mature over an extended period, this method of control is of dubious value.

Chemical Control:

Thistles at the seedling or rosette stage are susceptible to growth regulator type herbicides applied either as spot or boom sprays.

In years when there is an early autumn break and large numbers of thistles germinate before the temperature falls, autumn spraying can be very effective. Spraying at this time also requires lower herbicide rates.

In most winters when the temperature falls to near freezing, thistles become dormant and are very much less susceptible to herbicides. Susceptibility increases again with the onset of spring growth and spraying can usually be resumed effectively in September or October.

Once thistles have started to shoot they become much more resistant. Control of thistles in or past the bud stage is generally poor.

BOOM SPRAY APPLICATION

Stage of growth*	(Active ingredient)	Commercial product	Rate per hectare	Comments
Rosettes	clopyralid metsulfuron methyl	Lontrel® (300 g/L)	Up to 2litres/ha	Add surfactant. Apply to actively growing plants.
		Brush-Off® (600 g/kg)	15g/hectare	
Pre flowering	clopyralid metsulfuron methyl	Lontrel® (300 g/L)	Up to 2litres/ha	Add surfactant. Apply to actively growing plants.
		Brush-Off® (600 g/kg)	15g/hectare	
After flowering	metsulfuron methyl	Brush-Off® (600 g/kg)	15g/hectare	Add surfactant. Apply to actively growing plants.

- The rosette stage of growth is the preferred stage for effective chemical control. Application at the flowering stage or latter will result in reduced kill rates.
- Note Brushoff (®) can only be used before planting of pines or eucalypts. Brushoff (®) applications after tree planting will result in tree damage. See the label.