

Cape Tulip, one-leaf (*Moraea flaccida*); two-leaf Cape tulip (*Moraea miniata*)



Declaration

(Code: C= City; S=Shire; T=Town)

Category : P1

Location : for the whole of the State.

Category : P3

Location : For the municipal districts of Cranbrook (S), Denmark (S), Kent (S). except that area bordered by Albany Highway, Weir Road, Boyup-Cranbrook Road, Shamrock and Yeriminup Roads, and Frankland-Cranbrook Road.

Category : P4

Location : For the municipal districts of Albany (C), Augusta-Margaret River (S), Boddington (S), Boyup Brook (S), Bridgetown-Greenbushes (S), Brookton (S), Broomehill (S), Bunbury (C), Busselton (S), Capel (S), Collie (S), Corrigin (S), Cuballing (S), Dardanup (S), Donnybrook-Balingup (S), Dumbleyung (S), Esperance (S), Gnowangerup (S), Harvey (S), Jerramungup (S), Katanning (S), Kojonup (S), Mandurah (C), Manjimup (S), Murray (S), Nannup (S), Narrogin (S), Pingelly (S), Plantagenet (S), Ravensthorpe (S), Serpentine-Jarrahdale (S), Tambellup (S), Wagin (S), Wandering (S), Waroona (S), West Arthur (S), Wickepin (S), Williams (S), Woodanilling (S), Yilgarn (S). and that area of the Cranbrook Shire bordered by Albany Highway, Weir Rd, Boyup-Cranbrook Road, Shamrock & Yeriminup Roads & Frankland-Cranbrook Road

Standard Control Codes (these may vary for individual plants)

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P1 REQUIREMENTS Prohibits movement	The movement of plants or their seeds is prohibited within the State. This prohibits the movement of contaminated machinery and produce including livestock and fodder.



<p style="text-align: center;">P3 REQUIREMENTS</p> <p>Aims to control infestation by reducing area and/or density of infestation</p>	<p>The infested area must be managed in such a way that prevents the spread of seed or plant parts within and from the property on or in livestock, fodder, grain, vehicles and/or machinery.</p> <p>Treat to destroy and prevent seed set all plants:-</p> <ul style="list-style-type: none"> • within 100 metres inside of the boundaries of the infestation • within 50 metres of roads and high-water mark on waterways • within 50 metres of sheds, stock yards and houses <p>Treatment must be done prior to seed set each year.</p> <p>Of the remaining infested area:-</p> <p>Where plant density is 1-10 per hectare treat 100% of infestation. Where plant density is 11-100 per hectare treat 50% of infestation. Where plant density is 101-1000 per hectare treat 10% of infestation.</p> <p>Properties with less than 2 hectares of infestation must treat the entire infestation.</p> <p>Additional areas may be ordered to be treated.</p>
<p style="text-align: center;">P4 REQUIREMENTS</p> <p>Aims to prevent infestation spreading beyond existing boundaries of infestation</p>	<p>The infested area must be managed in such a way that prevents the spread of seed or plant parts within and from the property on or in livestock, fodder, grain, vehicles and/or machinery.</p> <p>Treat to destroy and prevent seed set all plants:-</p> <ul style="list-style-type: none"> • within 100 metres inside of the boundaries of the infested property • within 50 metres of roads and high-water mark on waterways • within 50 metres of sheds, stock yards and houses <p>Treatment must be done prior to seed set each year. Properties with less than 2 hectares of infestation must treat the entire infestation.</p> <p>Additional areas may be ordered to be treated.</p>
<p>Special considerations</p>	<p>In the case of P4 infestations where they continue across property boundaries there is no requirement to treat the relevant part of the property boundaries as long as the boundaries of the infestation as a whole are treated. There must be agreement between neighbours in relation to the treatment of these areas .</p>

Control Method

<p>Recommended herbicides</p>	<p>:</p> <ul style="list-style-type: none"> • (1 leaf) August-September, (2 leaf) July-end August 2,4-D LV ester (cereals and pasture) 2,4-D amine (cereals and pasture) 2,4-DB (cereals and pasture) Paraquat (blanket wiper) • Full emergence to early August 2,2-DPA • Wheat pre-sowing or post-emergence. Barley and oats post-emergence only Chlorsulfuron • Wheat - 10 days presowing. Barley post-emergence Metsulfuron • At point of corm exhaustion (pasture) Spinnaker® (for two leaf only)
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Herbicide	:	2,4-D ester (various trade names - AVPMA site)
Active ingredient	:	600 or 680 g/litre 2,4-D ester (Group I)
Rates of dilution for spot spraying	:	1:1500 to 1:1000
Amount of product per 10 litres water	:	7 - 10 mL
Rate of product per hectare	:	600 g/L formulation <ul style="list-style-type: none"> • Cereal crops(not oats) 1.3 litre • Pastures 1.8 L – 3.7 L (will damage legumes) 680 g/L formulation <ul style="list-style-type: none"> • Cereal crops(not oats) 1.15 litre • Pastures 1.7 L – 2.47 L (will damage legumes)
Wetting agent dilution	:	1:600
Time of application	:	August-September (1 leaf) July-end August (2 leaf) A permit from APVMA is required after August 31.
Remarks	:	<ul style="list-style-type: none"> • Burn paddock in late summer early autumn to increase sprouting of corms cormils. Respraying at lower rates will be necessary for several years to exhaust dormant corms and cormils. Treatment will damage sub-clover. • Not favoured if near crops sensitive to 2,4-D eg. peas, canola, vines and lupins
More information and other control methods	:	<ul style="list-style-type: none"> • Cultivate after a good emergence. Repeat a few weeks later. • Repeat treatment for several years to exhaust dormant corms. Grub individual plants and burn but chemical control is preferable. • Glyphosate or paraquat applied through a blanket wiper is effective on one-leaf. Less satisfactory results are achieved on two-leaf.

Herbicide	:	2,4-D amine (various trade names - AVPMA site)
Active ingredient	:	500 g/litre 2,4-D amine (Group I)
Rates of dilution for spot spraying	:	1:1000 to 1:670
Amount of product per 10 litres water	:	10 - 15 mL
Rate of product per hectare	:	1 - 1.5 litres
Wetting agent dilution	:	1:600
Time of application	:	August-September (1 leaf) July-end August (2 leaf)
Remarks	:	Burn paddock in late summer early autumn to increase sprouting of cormils and corms. Respraying at lower rates will be necessary for several years to exhaust dormant corms and cormils. Treatment will damage clover.
More information and other control methods	:	<ul style="list-style-type: none"> • Cultivate after a good emergence. Repeat a few weeks later. • Repeat treatment for several years to exhaust dormant corms.



		<ul style="list-style-type: none"> Grub individual plants and burn but chemical control is preferable.
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Herbicide	:	2,4-DB (various trade names - AVPMA site)
Active Ingredient	:	400 g/litre 2,4-DB (Group I)
Rates of dilution for spot spraying	:	1:500 to 1:300
Amount of product per 10 litres water	:	20 - 30 mL
Rate of product per hectare	:	2 - 3 litres
Wetting agent dilution	:	1:600
Time of application	:	<ul style="list-style-type: none"> August-September (1 leaf) July-end August (2 leaf)
Remarks	:	Use where it is important to maintain clover content of pastures
More information and other control methods	:	<ul style="list-style-type: none"> Cultivate after a good emergence. Repeat a few weeks later. Repeat treatment for several years to exhaust dormant corms. Grub individual plants and burn but chemical control is preferable.

Herbicide	:	2,2-DPA
Active ingredient	:	740 g/kg 2,2-DPA (Group J)
Rates of dilution for spot spraying	:	55 g in 10 litres
Amount of product per 10 litres water	:	55 g
Rate of product per hectare	:	5.5 kg
Wetting agent dilution	:	1:600
Time of application	:	Full emergence to early August
Remarks	:	This treatment is recommended only for early control. More expensive than 2,4-D. Use in non-arable areas only. Useful for areas that become boggy later in winter. Can also be useful in bushland treatments.
More information and other control methods	:	<ul style="list-style-type: none"> Cultivate after a good emergence. Repeat a few weeks later. Repeat treatment for several years to exhaust dormant corms. Grub individual plants and burn but chemical control is preferable. Applied through a blanket wiper is effective on one-leaf. Less satisfactory results are achieved on two-leaf.

Herbicide	:	Chlorsulfuron (various trade names - AVPMA site)
Active ingredient	:	750 g/kg chlorsulfuron (Group B)
Rates of dilution for spot spraying	:	2 g in 100 litres (see remarks)



Amount of product per 10 litres water	:	0.2 g
Rate of product per hectare	:	15 g
Wetting agent dilution	:	1:400
Time of application	:	Wheat pre-sowing or post-emergence. Barley and oats post-emergence only. Control can be achieved from early emergence to flowering of the Cape tulip. Less damage occurs to most non-legume components if applied late post-emergence
Remarks	:	<ul style="list-style-type: none"> Recommended for control of tulip in cereal crops and non legume pastures, particularly if Paterson's curse, soursob or dock are also a problem. Dilution rate for spot spraying is based on 20 g/ha. Before using chlorsulfuron or other sulfonyl urea'ss in cereals consider its implications for herbicide resistance strategies.
More information and other control methods	:	<ul style="list-style-type: none"> Chlorsulfuron and metsulfuron have given promising results when used on pasture through a weed wiper at rates of 1 g/litre.

Herbicide	:	Metsulfuron (various trade names - AVPMA site)
Active ingredient	:	600 g/kg Metsulfuron methyl (Group B)
Rates of dilution for spot spraying	:	1 g in 100 litres
Amount of product per 10 litres water	:	0.1 g
Rate of product per hectare	:	5 g
Wetting agent dilution	:	1:400 to 1:250
Time of application	:	<ul style="list-style-type: none"> Wheat: 10 days pre sowing. Wheat-barley: post-emergence
More information and other control methods	:	<ul style="list-style-type: none"> Chlorsulfuron and metsulfuron have given promising results when used on pasture through a weed wiper at rates of 1 g/litre.

Herbicide	:	Spinnaker®
Active ingredient	:	700 g/kg imazethapyr (Group B)
Rate of product per hectare	:	35 - 50 g
Wetting agent dilution	:	BS-1000 1:500 or Pulse® at 200 mL/100 L or Hasten 500 mL/ 100 L
Time of application	:	At point of corm exhaustion
Remarks	:	Use Spinnaker only on two-leaf Cape tulip. Very safe on subterranean clover It may suppress some grasses and erodium.
More information and other control methods	:	Chlorsulfuron and metsulfuron have given promising results when used on pasture through a weed wiper at rates of 1 g/litre. A mixture of 20-25 g Spinnaker with 100-150 mL glyphosate



		in pasture. Re-treatment the following years is essential.
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Herbicide	:	Paraquat
Active ingredient	:	250 g/L paraquat (Group L)
Rate of product per hectare	:	1 - 1.5 L
Wetting agent dilution	:	100 mL BS - 1000 per 100 L
Time of application	:	<ul style="list-style-type: none"> Late August to September or at appearance of first flowers. For 1 leaf cape tulip only
Remarks	:	<ul style="list-style-type: none"> Recommended for trained or registered spraying contractor. Can also be applied using a blanket wiper at 1 L / 10 L of mix
More information and other control methods	:	Can be used as a spray in conjunction with spray - topping to prevent grass seed production in pasture.

Weed Description

Family : Iridaceae
Form : Herbaceous – Perennial
Status : Present in WA

One-leaf Cape tulip (*Moraea flaccida*, previously *Homeria flaccida*) is a native of South Africa. Perennial herb to 70 cm high, distinguished by fibrous-sheathed corm at the base of the plant, orange to salmon pink flowers that are yellow in the centre; single leaves and presence of seeds in capsules. Corms 1–4 cm wide, developing new corms each year. Spread by seed and movement of corms. Often found in hay cut from infested paddocks.

Leaves : Leaf folded, ribbed, linear, to 1 m long, extended and drooping above the flowers.

Flowers: Borne on branched stems. Flowers with 6 petal-like perianth segments, each 2.6–4 cm long, not joined to each other; yellow forms have been found occasionally in WA. Flowers in spring when 2 or 3 years old.

Seeds : Angular red brown seeds, about 2 mm long, in narrow-cylindrical capsules 2.5–5 cm long, splitting from the apex into 3 parts.

Originally introduced as a garden plant in the 19th century. Seeds germinate in autumn and plants regrow from corms at the same time. Poisonous to stock but generally avoided by them. Young stock may be affected if there is no alternative grazing available. One-Leaf Cape Tulip is a serious pasture weed in WA, SA and Vic.

Two-leaf Cape tulip (*Moraea miniata* previously *Homeria miniata*) is a perennial herb to 60 cm high, native to South Africa. Confused with One-leaf Cape Tulip, *Moraea flaccida*, which produces seeds and has a single basal leaf. Distinguished by scaly covering around corm at the base of the plant, leaves 2 or 3;

Leaves : Folded, ribbed, linear, to 80 cm long.

Flowers: Pink–salmon coloured flowers with a green dotted yellow centre on branched stems. Flowers with 6 petal-like perianth segments, segments 1.3–2.5 cm long, not joined together. Flowers late winter and spring when 2 or 3 years old. Does not produce seeds, but does form a capsule to 1.5 cm long, which splits from the tips into 3 parts.



Corms : Corms 1–2.5 cm wide, developing new corms each year. Plants produce clusters of cormils in the swollen leaf axils and many small corms (cormils) around the parent corm. Grows from corms and cormils in autumn.

Spread by movement of corms and cormils caught in farm machinery and in agricultural produce. Poisonous to stock, but generally avoided by them. Cormil production may exceed many thousands per square metre, and may remain viable in the soil for many years. Less common than One-leaf Cape Tulip; the 2 species may grow together.

Other relevant information related to this topic:

- [Quarantine WA](#)
- [Permitted and quarantine species list](#)
- [Cape tulips \(Farmnote 100\)](#)
- [Permit for minor off-label-use of a registered agvet chemical product](#)
(Permit number – per9655)
- [Off-label permit \(olp\) for use of a registered agvet chemical product](#)
(Permit number - per4590)