

Bathurst burr

Xanthium spinosum



Native to South America, Bathurst burr was first introduced into Australia in the early 1800s as a result of contaminated grain or livestock imports. It is a common weed in many parts of the world and reduces agricultural productivity.

Heavy infestations occur where the ground has been disturbed, such as on roadsides, old cultivation paddocks and irrigated pastures or watercourses.

Bathurst burrs contaminate wool, necessitating heavy skirting, and increasing processing costs.

This weed also competes successfully with many summer crops, and can act as a host for some fungal diseases of horticultural plants. Seedlings are poisonous to domestic stock animals, causing death in some circumstances.

Declaration details

Bathurst burr is not declared under the *Land Protection (Pest and Stock Route Management) Act 2002*; however, plants that are not declared under state legislation may have control requirements imposed by local governments.

Description and general information

Bathurst burr is an erect, multi-branched annual herb, growing up to 1 m high (but usually 30–60 cm).

Leaves are dark green on the upper surface, a paler green on the under surface, up to 7 cm long and usually three-lobed.

Stems are branched with one or two three-pronged yellow spines at the base of each leaf stalk.

Flowers are creamy green and small, developing into straw-coloured burrs, 1–1.5 cm long, with numerous yellow hooked spines. Each burr contains two seeds.

Life cycle

Bathurst burr usually germinates during late spring to early summer, produces burrs in February and dies in early winter. However, some seeds can germinate out of season and mature plants can be found at any time of the year.

Of the two seeds present in each burr, only one will germinate in a single season. The other seed will remain dormant for two or three years (sometimes longer).

The hooked spines of Bathurst burr will readily attach to the fur or wool of animals and other fibrous material (such as clothing), making burrs easy to disperse. Burrs are also able to float and can spread along watercourses.

Distribution

Bathurst burr is widespread in Australia, occurring in all states and the Northern Territory. It is particularly widespread in Queensland, occurring in southern, western and central areas, but is seldom important in the tropics. It prefers drier areas, such as well-drained contour banks and lighter soils.



Queensland Government

Control

Control methods include cultivation, which is effective in the seedling stage, or spraying with suitable herbicides (see Table 1 below).

Spraying is most effective on young plants and should occur before any burrs form, to prevent seeding. Once removed, establishing competitive healthy pastures or crops will help stop the weed re-establishing.

There are numerous biological control agents, such as the Bathurst burr seed-fly (*Euaresita bullans*), and the rust *Puccinia xanthii*, which have limited effectiveness.

Further information

Further information is available from your local government office, or by contacting Biosecurity Queensland (call 13 25 23 or visit our website at www.biosecurity.qld.gov.au).

Table 1. Herbicides registered for the control of Bathurst burr

Situation	Herbicide	Rate	Comments
Winter cereals	2,4-D amine (500 g/L)	0.7 L/ha to 1.7 L/ha	Boom spray when young
Cotton	Fluometuron (500 g/L)	1.3 L/ha to 7.2 L/ha	Boom spray when young Refer to label for critical comments
Fallow cropland, rights of way, non crop areas	MCPA (500 g/L)	2 L/ha	Boom spray young seedlings only Refer to label for critical comments
	Glyphosate-trimesium e.g. Touchdown®	1.6 L/ha to 2.4 L/ha boom or 400 ml to 560 ml/100 L water spot spray	Spray to the point of run-off
	2,4-D amine (300 g/L) + picloram (75 g/L) e.g. Tordon® 75-D	1 L/ha	Aircraft or boom application DO NOT apply two months prior to sowing winter cereals
	Fluroxypyr (200 g/L) e.g. Starane 200	75 ml/100 L water	Apply only to young, actively growing plants to the point of run-off
Pasture	MCPA (500 g/L)	2 L/ha	Spot spray. Damage to legumes can occur
	Fluroxypyr (200 g/L) e.g. Starane 200	75 ml/100 L water	Spray young, actively growing plants to the point of run-off
	2,4-D amine (500 g/L)	0.4 L/100 L water	Spot spray. Apply to young, actively growing weeds, ensuring thorough coverage
	MCPA (340 g/L) + dicamba (80 g/L)	190 ml to 270 ml/100 L	Spray when young and actively growing
Sorghum	2,4-D amine (500 g/L)	0.5L/ha to 1 L/ha	Boom spray when young
	2,4-D amine (300 g/L) + picloram (75 g/L) e.g. Tordon® 75-D	1 L/ha	Aircraft or boom spray when young
Turf, ovals/parks	2,4-D amine (500 g/L)	2 ml to 4 ml/1 L	Spot spray when young
Dry channels, drains	Glyphosate-trimesium e.g. Touchdown®	1.6 L/ha to 2.4 L/ha boom or 400 ml to 560 ml/100 L water spot spray	Do not allow water to return to drains/ channels within four days of application

Read the label carefully before use. Always use the herbicide in accordance with the directions on the label.

Fact sheets are available from Department of Employment, Economic Development and Innovation (DEEDI) service centres and our Business Information Centre (telephone 13 25 23). Check our website at www.biosecurity.qld.gov.au to ensure you have the latest version of this fact sheet. The control methods referred to in this fact sheet should be used in accordance with the restrictions (federal and state legislation, and local government laws) directly or indirectly related to each control method. These restrictions may prevent the use of one or more of the methods referred to, depending on individual circumstances. While every care is taken to ensure the accuracy of this information, DEEDI does not invite reliance upon it, nor accept responsibility for any loss or damage caused by actions based on it.