

Dense waterweed

Egeria densa



Dense waterweed is a problem in some waterways, where it is easily dispersed from broken stem pieces. The breaking of stems into segments is a natural occurrence in autumn, and is supplemented by unnatural breakage through external damage to the plant. Dense waterweed is commonly used in home aquariums and ponds and its appearance in some waterways has been blamed on the illegal dumping of aquarium contents.

Dense waterweed will thrive in slow-flowing, shallow water or in the presence of high nutrient levels. It forms extremely dense, submerged masses that can seriously retard water flow. Growth may interfere with irrigation equipment, hydro-electric activity and potable water supplies. Other activities like fishing, boating and swimming may also be impeded.

Legal requirements

Dense waterweed is not a prohibited or restricted invasive plant under the *Biosecurity Act 2014*. However, by law, everyone has a general biosecurity obligation (GBO) to take reasonable and practical measures to minimise the biosecurity risks associated with invasive plants under their control.

Local governments must have a biosecurity plan that covers invasive plants in their area. This plan may include actions to be taken on dense waterweed. Some of these actions may be required under local laws. Contact your local government for more information.

Description

Dense waterweed grows in an underwater mass, with stems up to about 1.5 m long, significantly longer in suitable conditions.

Dense waterweed is usually firmly attached to the substrate, but occasionally appears as dense mats floating just below the surface. Dense water weed prefers cooler water and is not as widespread in Queensland as other aquatic weeds. A large infestation is present in Lake Baroon near Maleny. Dense water weed is a serious invasive weed in Victoria and New Zealand where it infests irrigation channels and reservoirs.



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The leaves are up to 4 cm long with tiny serrations on the margins. They grow in whorls of four or five (sometimes as many as 8) and are most densely clustered at branch ends near growing tips. Flowers are 2 cm in diameter and have three white petals. Roots are very fine and grow from the lower nodes.

Dense waterweed is similar in appearance to the native hydrilla (*Hydrilla verticillata*) and the exotic elodea (*Elodea canadensis*). Hydrilla is a common native plant with finely toothed leaves in whorls of three to eight. Elodea *canadensis* has small leaves in whorls of three. Elodea is not common in Queensland as it prefers cooler water.

Dense waterweed can be distinguished from hydrilla and elodea by its dense growth habit. The leaves are larger and whorls are very close to each other, which gives the plants its dense appearance.

Control

The usual removal methods include hand pulling, cutting and digging with machines. These mechanical control methods may be quite costly, and all methods need to be thorough to reduce the likelihood of regeneration from broken plant pieces.

Table 1. Herbicides for the control of dense waterweed

Situation	Herbicide	Rate	Comments
Aquatic areas	Diquat 200 g/L (e.g. Reglone)	5 L/megalitre water	Apply by injection below the surface or as a surface spray
A. Water bodies deeper than 0.5 m with estimated water volume greater than 37.5 m ³ , with no physical barriers to restrict water circulation			
Control of submerged and emergent invasive plants in enclosed water bodies and margins of larger open aquatic systems	CLIPPER herbicide (Flumioxazin 15 g/tablet)	Apply 1 tablet for every 37.5 m ³ of water to achieve 400 parts per billion	Control is directly related to the amount of direct sunlight on the water body. Under warm, sunny conditions good control can be expected. Weeds growing in shaded parts of the water body will take longer to be controlled and may require additional applications.
B. Water bodies less than 0.5 m deep, or with estimated water volume less than 37.5 m ³ , with barriers to water circulation where direct tablet application is not practical			
Control of floating, emergent, and submerged invasive plants where direct tablet application is not practical	CLIPPER herbicide (Flumioxazin 15 g/tablet)	Injection of spray solution 200–400 parts per billion	Refer to general instructions and application on the product label to determine the appropriate application type

Read the label carefully before use and always use the herbicide in accordance with the directions on the label

Fact sheets are available from biosecurity.qld.gov.au. The control methods recommended 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, the department does not invite reliance upon it, nor accept responsibility for any loss or damage caused by actions based on it.



You can help to prevent this problem by never disposing of unwanted aquarium plants or waste in waterways. Treat small infestations as soon as possible to avoid a rapidly growing problem.

Herbicide control

Diquat is registered for control of pond invasive plants in all states. Additionally, the Australian Pesticide and Veterinary Medicines Authority (APVMA) has recently registered a herbicide for the control of dense waterweed in Queensland. A summary of the uses of this herbicide is listed in Table 1.

More information

More information is available from your local government or visit biosecurity.qld.gov.au.