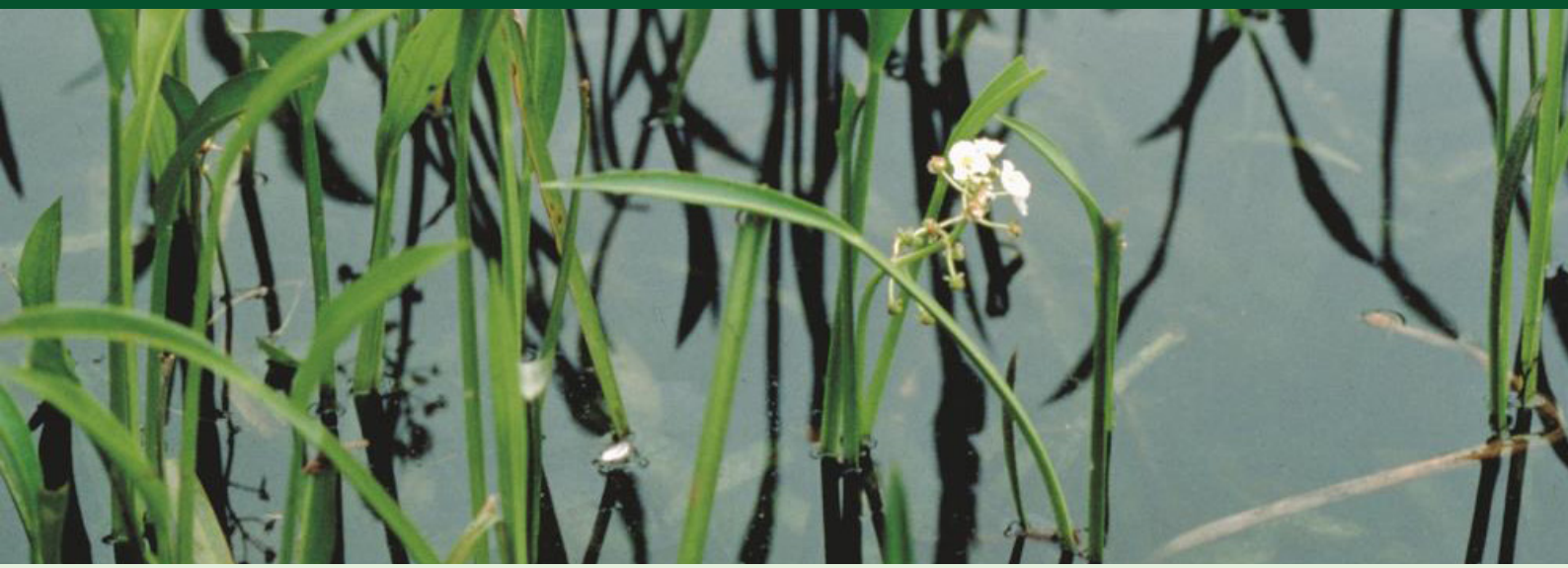
Sagittaria *(Sagittaria platyphylla)*

Weed management guide

Weed type
Water Weed

February 2023

www.lls.nsw.gov.au/regions/central-west



In NSW, weeds are regulated by the NSW Biosecurity Act, 2015. All land managers have a General Biosecurity Duty to contain the spread of weeds.

"General Biosecurity Duty means that any person dealing with plant matter must take measures to prevent, minimise or eliminate the biosecurity risk (as far as is reasonably practicable)."

The Regional priority for Sagittaria is Prevention. In order to achieve this, Land Managers are asked to: *Mitigate the risk of new weeds being introduced to their land. The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.*

For further information, contact your local Biosecurity (Weeds) Officer via Central West Local Land Services or visit NSW WeedWise.

NSW WeedWise

Habit and description

Sagittaria is an aquatic weed which can grow up to 150 cm tall. This plant has 3 growth forms: submerged rosette, broad-leaved emergent, and narrow-leaved emergent. The submerged form floats on deeper water and does not have emergent stems. The broad-leaved form is where one would see all the parts of the plant (including flowers). The narrow-leaved form appears grass-like and is thought to be a response to injury (flooding, grazing, etc.). These leaves supply energy to the rhizomes until the latter is healthy enough to produce broad leaves.

Emergent leaves are oblong shaped with pointy tips (up to 25 cm x 10 cm) while submerged leaves are narrower and grow twice as long. The stems/leaf stalks have a triangular cross section. Plants are monoecious, meaning they have separate male and female flowers. The male ones have white petals and yellow center (3 cm wide), while the females have no petals and look like flattened green berries. The fruit of Sagittaria has a compound fruit; a mass of numerous fruitlets, each containing one seed, and arranged in rounded clusters.

It prefers growing in warm temperatures and subtropical climates and is particularly susceptible to frost (above-water parts). Sites where it grows best are small channels and inside bends of rivers.

Photo: © Graham Prichard | NSW DPI

Photo: © Graham Prichard | NSW DPI

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Reproduction and spread

Sagittaria can reproduce sexually and asexually. Its numerous seeds are spread mainly by water but also by boats, soil stuck to vehicle tyres, animals and birds.

Broken-off plant fragments can also be transported to other places and start a new infestation (Queensland DAF, 2020).

Impacts

Agriculture

- Sagittaria can affect water flows and increase the risk of flooding.
- In irrigation channels, it promotes sedimentation thereby decreasing flow.
- Furthermore, recreational activities are difficult due to overgrowth.

Native vegetation

- This plant usually outcompetes native water plants which affect fish and other animals that depend on them.
- Infestations also crowd waterways and consequently restricting the movement of aquatic animals.

Management

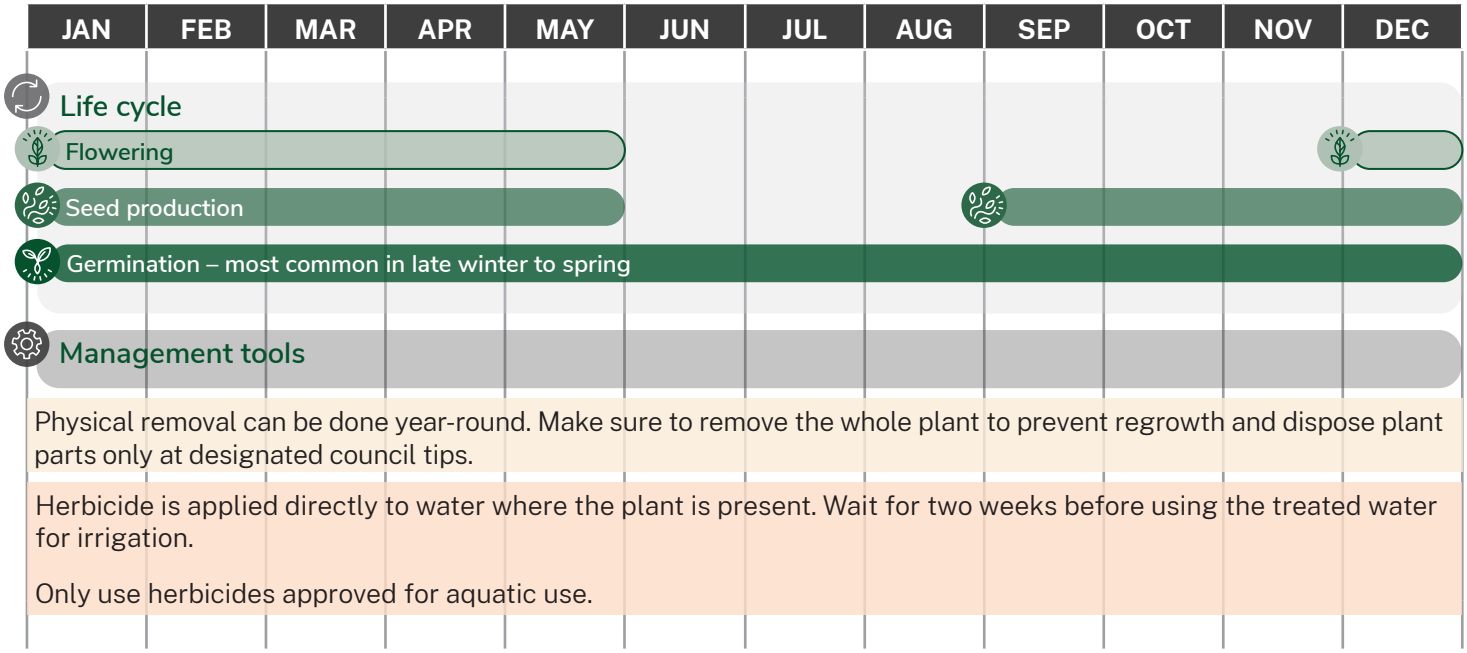
Chemical

- Available herbicides are applied directly in water where the infestation occurs.
- Two weeks must be allowed to pass before treated water can be used for irrigation again (confirm exact time on herbicide label).
- Seek the guidance of an experienced Weeds Officer for expert advice on herbicide use.
- Visit www.apvma.gov.au for a list of registered products, product labels and permit requirements.
- NSW DPI (2018) provides a list of recommended herbicides for the control of Sagittaria at https://weeds.dpi.nsw.gov.au/Weeds/Sagittaria

Non-chemical

- As prevention is paramount, disposal of aquarium contents into waterways should be avoided.
- Physical removal is only recommended for isolated or new infestations, with the end goal of eradicating the weed.
- In dense infestations, excavation with machinery or by hand can be done to quickly restore function to waterways. It is important to ensure that plant fragments are not inadvertently transferred downstream.
- To prevent regrowth, make sure that root fragments are also removed.

Management calendar



Optimal control options may vary depending on your location and climate. Consult an experienced Weeds Officer based in your local government area for control methods suited to your conditions.

All herbicides must be used in accordance with the herbicide label and permit requirements.

Further information

For more information on your general biosecurity duties, visit www.dpi.nsw.gov.au/biosecurity.

For the best guidance on how to meet this duty on your property, contact your expert Weeds Officer at your local council or via Local Land Services www.lls.nsw.gov.au/regions/central-west.

NSW WeedWise

References

NSW DPI. (2018). *NSW WeedWise*. https://weeds.dpi.nsw.gov.au/Weeds/Sagittaria

The State of Queensland, Department of Agriculture and Fisheries. (2020). Sagittaria (*Sagittaria platyphylla*). Queensland Government. https://www.daf.qld.gov.au/__data/assets/pdf_file/0018/1244304/sagittaria.pdf

1a South Street
Grenfell NSW 2810

Office hours:
Monday to Thursday
7:15am-4:30pm

T: 0458 022 102
E: kellie@weddin.nsw.gov.au
W: weddin.nsw.gov.au

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