



NSW DEPARTMENT OF  
PRIMARY INDUSTRIES

# Weed Alert

## HAVE YOU SEEN THIS PLANT?

# Broomrapes

(*Orobanche* spp.)

### INTRODUCTION

Broomrapes are amongst the world's worst crop weeds and pose a serious threat to broadleaf grain and vegetable industries in Australia.

They are parasitic plants that grow on the roots of broadleaf hosts and obtain all of their nutrients and water from these plants.

Once established broomrape can reduce crop yields by up to 70%, threaten export markets and is extremely difficult to eradicate.

### WORLD STATUS

There are about 140 species worldwide, mostly native to Europe and Asia. Five are major crop weeds in Europe, Asia and America.

Branched broomrape (*Orobanche ramosa*) poses a major threat to Australian crops. It is not native to Australia and is only known to occur as an isolated infestation in the Murray Bridge area of South Australia.

Other species of concern are Egyptian broomrape (*O. aegyptiaca*), nodding broomrape (*O. cernua* var. *cernua*), crenate broomrape (*O. crenata*), and sunflower broomrape (*O. cumana*). None of which currently exist in Australia.

Native broomrape (*O. cernua* var. *australiana*) and another exotic, clover broomrape (*O. minor*), are present but not considered to be a problem of Australian crops. Clover broomrape is parasitic on garden and pasture plants and is a crop problem in other countries.



Branched broomrape.

Photo: Anna Williams, Department of Water, Land and Biodiversity Conservation, South Australia



Branched broomrape flower.

Photo: Anna Williams, Department of Water, Land and Biodiversity Conservation, South Australia

### IDENTIFICATION

A characteristic of all broomrapes is that they contain no green parts (no chlorophyll) and only the flowering stem can be seen above the ground.

**Branched broomrape** has the following features:

#### Stem

Up to 30 cm high and densely branched from ground level. Brown or straw yellow in colour and covered with soft woolly hairs.

#### Leaves

Very few, up to 8 mm long, scale-like and occur mainly at the base of the stem.

Visit our website: [www.dpi.nsw.gov.au/weeds](http://www.dpi.nsw.gov.au/weeds)

## Flowers

Many trumpet-shaped pale blue to violet flowers, 10–22 mm in length. They appear in summer.

## Fruit

A single celled capsule containing hundreds of seeds.

## Seed

Very fine, about 0.3 mm long and oval in shape, resembling 'ground pepper'. They are black, brown, or yellowish brown in colour and have a rough surface.

Other broomrapes in Australia can be distinguished from branched broomrape by the following features:

- Both native and clover broomrape have an unbranched flowering stem.
- Flowers of clover broomrape are whitish with purple veins.

## GROWTH AND SPREAD

Broomrapes are annual plants that grow from seed and require a host to grow. Seeds germinate in response to chemicals released by host plant roots. The broomrape seedling root then attaches itself to the host plant root and remains underground until flowering.

Flowering stems emerge about 6 weeks after germination, then flower and set seed within 2–3 weeks. Seed capsules dry and shatter in summer. One plant can produce over 100,000 seeds per year and seeds may lay dormant in the soil for many years.

Broomrape seed can be spread by livestock, machinery, vehicles, flood waters and contaminated fodder, seed and soil.

## CONTROL

Broomrape is difficult to control due to its parasitic nature, small seeds and close association with the host plant. There are various control options currently being trialled in Australia.



Clover broomrape has whitish flowers with purple veins.  
Photo: Steve Sutherland

## WATCH OUT FOR AND REPORT ANY FORM OF BROOMRAPE

All *Orobanche* spp. are declared noxious throughout NSW as Class 1 weeds under the NSW Noxious Weeds Act 1993. As notifiable weeds all outbreaks of broomrape must be reported to the local council within three days.

**If you have seen broomrape, please report it to your Council Weeds Officer or NSW Department of Primary Industries for positive identification.**

## REFERENCES

Faithfull, I. and McLaren, D. (2004) Branched broomrape – identification: State prohibited weed. *Landcare Note LC0272*. State of Victoria, Department of Sustainability and Environment.

Hosking, J. R., Sainty, G., Jacobs, S. and Dellow, J. (in prep.) *The Australian WEEDbook*.

*Prepared by Rachele Osmond, Weeds Project Officer, Tamworth.*

**FOR MORE INFORMATION:**  
Contact your local council weeds officer or district agronomist, or telephone the NSW Department of Primary Industries Hotline on 1800 680 244



NSW DEPARTMENT OF  
PRIMARY INDUSTRIES