

factsheet

Integrated weed management:

St John's wort



St John's wort

The problem and history

St John's wort (*Hypericum perforatum*), is not a new weed in the Walcha area. This deep rooted perennial was first introduced as a garden plant and has now spread into three main areas of the shire by a variety of methods. These include transport via livestock, fodder and vehicles.

Scattered plants and patches occur along most stock routes and roads in the area. In particular, there has been a rapid increase in St John's wort in the Walcha Common, an area of 100 ha on the northern side of the Walcha township.

Adjoining landholders have become concerned as there is a real threat of it spreading from the Common. Although financial donations have helped to pay for a spray program, the threat of seed spread by cattle using the Common in January was high. The Trustees therefore needed a solution to manage the weed problem and to satisfy all parties involved.

Management options available

In an integrated weed management program, a number of tactics can be combined and a strategic weed management plan developed. Possible management options available for the Walcha Common included physical, chemical, cultural and biological control.

Project: Improving control of St John's Wort in a local common.

Participants: New England Weeds Authority, Walcha Common Trustees, adjoining landholders, Department of Land and Water Conservation.

Location: Walcha shire, New England, northern NSW.

Ave. annual rainfall: 808 mm

VET sector resource: RTD4403A *Develop a pest management action plan for a local area* and RTD5402A *Develop a strategy for the management of target pests.*

Physical

Grazing management - maintaining grazing pressure with sheep in summer rainfall areas during winter, spring and summer to suppress the St John's wort seedlings and reduce the number of plants reaching seed set.

Chemical

Herbicide application via spot treatment - used in heavily infested areas to knock down mature stands. Treatment is required prior to seed set.

Cultural

Addition of fertiliser and sowing of clover seed - this increases the competitiveness of the more desirable pasture species. Reducing the space available for weed invasion and improving growing conditions for the desirable species helps to suppress emerging St John's wort seedlings.

Biocontrol

Release of living organisms to control the weed - *Aculus hyperici* (a mite) was released in the early 1990s.



Walcha Common had some large and dense infestations of St John's wort that required strategic herbicide applications. Other strategies were also used to enable long-term management of this deep rooted perennial.

Photo: K. Matthews

Integrating options into a management plan

Kevin Matthews, District Weeds Officer with the New England Weeds Authority, has contributed to the production of a fully integrated management plan which involves a combination of the available physical (eg grazing), cultural (eg sown pasture), chemical (eg herbicides) and biological tactics (eg release of insect predators).

The first stage of the plan involved agisting sheep in one paddock (which also provided funds for a spray program to target other infestations within the Common). Secondly strict pasture management, including introducing competitive pasture species and fertiliser, was imposed. Further expansion and monitoring of the biological control program and strategic chemical application were also key elements of the plan.

The management plan therefore aimed to:

- prevent further spread of St John's wort
- control St John's wort within the Common
- meet community objectives
- secure economic viability of the Common's operations.
- educate the Trustees and users in appropriate St John's wort management for on-going control.

Biological control



Chemical application



Grazing



Competitive pasture



The common is managed using an integrated weed management plan including strategic grazing by sheep, herbicide application on dense infestations, release of biological control agents and sowing of competitive pastures.
Photos: K. Matthews

The future

The plan has satisfied all parties involved: St John's wort is being better controlled, the risk of spread has been reduced, there is an income for the Trust, the use of the Common has been maintained and the users are being educated in many aspects of weed

management. An active role is still played by the New England Weeds Authority in monitoring results and directing management decisions. Monitoring seasonal conditions will allow the strategy to be fine tuned for successful, long-term management of this deep rooted perennial weed.

For further information visit the Weeds CRC's website: www.weeds.crc.org.au

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