



Effective control/removal of Spiny Rush

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Spiny Rush is an invasive weed that grows in waterways and saline areas. It is unpalatable to stock, smothers existing vegetation and provides a habitat for rabbits and foxes.

It is a 'regionally controlled weed' in most of Victoria, so landowners must take reasonable steps to control or eradicate the plants on their land and adjoining roadsides.

Spiny Rush (*Juncus acutus L*) is native to the Mediterranean, South Africa, the US and South America. It is found in western and northern Victoria.

Controlling Spiny Rush is a long-term process. Large seed bank reserves in the ground mean it can be up to three years before seedlings are satisfactorily controlled and the area can be re-sown.

Establishing a strong, competitive, well-managed pasture that is tolerant of salt and waterlogging significantly reduces the future establishment of Spiny Rush seedlings. These pasture species include Tall Wheat Grass, summer- and winter-active Tall Fescue, Strawberry and Balansa Clovers, and a range of native grasses.

Spiny Rush tussocks can grow to more than 2 m high and 1.5 m wide. Infestations can become impenetrable to stock, humans and small machinery, while also harbouring pests.

There are two main techniques to attack Spiny Rush infestations: mechanical or chemical. Both may be necessary in some heavy infestations. Drainage can also help reduce soil moisture and seedling survival.

Mechanical control

Mechanical control can include mulching, slashing or ploughing using a mouldboard plough to completely turn young plants over (under the soil). Dead plants should be heaped up and burned and the area cultivated to encourage new seedling germination. New seedlings can then be controlled by further cultivation or spraying. Spiny Rush plants can establish vegetatively from pieces of old crown, so care must be taken to remove or burn all plant material from mechanically cultivated areas.

It is important to take care with cultivation, so as to minimise soil erosion, as saline soils are inherently unstable areas. An erosion assessment risk is recommended before cultivating these fragile, often wet areas.



Heavy Spiny Rush infestation on a creek flat in Branxholme, south-west Victoria. The area on the left has been mulched using a 150 HP tractor and mulcher.



Spiny Rush mulching operation at Branxholme, south-west Victoria.

Chemical control

A professional spraying contractor with specialised equipment is needed to deal with heavy infestations and large tussocks. Chemicals can be applied by planes, helicopters or ground machinery.

The Long Reach Mantis Spraying Arm is a specialist piece of equipment. It is a hydraulic arm attached to a tractor



that is capable of rotating 180 degrees, with a maximum reach of around 7 m. It also has a blower spray that has exceptional penetration in dense infestations.



Long Reach Mantis Spraying Arm in operation. Pictures show the blower spray attachment in operation.



A product containing Hexazinone is registered to control Spiny Rush in Victoria, but its purchase requires an Agricultural Chemical User Permit. Chemicals used to control Spiny Rush are residual and control seedlings for up to six months after spraying. A chemical control area must be observed after spraying.

Dead plants should be burnt on-site or mechanically removed from the area then heaped and burnt. Burning and ground disturbance encourages new seedlings to emerge and these can be sprayed before sowing a salt-tolerant, competitive, well-managed pasture within the area as soon as possible for long-term control.

For the best results, Spiny Rush plants should be sprayed as soon as they are detected and not allowed to thicken up and set seed. The cost of spraying, including the chemical, is about \$48/ha. Costs can be as high as \$200/ha if Spiny Rush becomes well established and needs both mechanical and spraying treatment.

Some roadsides containing significant native vegetation populations are exempt from spraying, cultivating or disturbance of any kind. This is to ensure that these rare and unique native grassland populations are preserved for the future. In these situations farmers and other interested parties such as Landcare groups and Shires are exempt from controlling 'regionally controlled weeds' such as Spiny Rush on areas that may adjoin their properties or roadsides. It is always best and **strongly recommended** that contact be made and advice sought from local DPI, DSE and Shire Offices prior to any roadside or adjoining

crowd land cultivation/spraying works being carried out. Failure to do so may result in prosecution and significant fines.



A well-established, 12-month-old, salt-tolerant pasture containing Tall Wheat Grass, Tall Fescue, Balansa and Strawberry Clovers after effective control of spiny rush infestation.

References

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