

Paterson's Curse

Paterson's curse is a winter annual herb. It is a major weed in winter pastures throughout southern Australia and can be a problem in areas of natural vegetation.

WHAT IS PATERSON'S CURSE?

Paterson's curse (*Echium plantagineum*) is a fast growing noxious weed invading pastures, roadsides and disturbed land in the region. The weed is a target for biological control, due to its effect on agricultural land and hazard to animals when consumed.

IMPACTS TO THE REGION

Paterson's curse is a prolific seeder that can produce more than 5000 seeds per plant per year. Large quantities of seeds may accumulate in the soil over several years. For example, a seedbank of up to 30,000 seeds per square metre has been reported. Seeds may remain dormant in the soil for up to five years.

Paterson's curse impacts to the region include:

- reduced pasture productivity and is toxic to livestock;
- degraded natural environment, compromising habitat values by crowding out and suppressing native vegetation;
- hay and grain infested with the weed will be less valuable; and
- affects humans with skin irritation, reaction to those allergic to pollen.

Despite these problems, some farmers consider Paterson's curse to be beneficial. In the drier regions of southern Australia, it is considered the salvation of grazing due to being the only source of feed (despite being poisonous).

Pasture productivity

Paterson's curse reduces pasture value as it out-competes the more nutritious and palatable pasture plants. The quick early growth of seedling roots allows it to out-compete pasture seedlings and better equips it to survive moisture stress, particularly after a false break. In autumn, seedlings may be so dense that they completely dominate other species. In winter, the large, broad rosette leaves shade

and smother most other species. Where Paterson's curse replaces legumes in a pasture, nitrogen fixation is reduced and soil fertility declines unless fertiliser is applied.

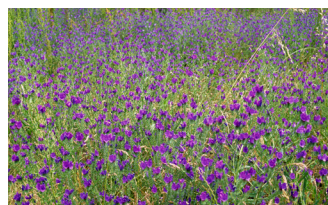
When Paterson's curse flowers it is unattractive to grazing stock and after dying provides little useful fodder, resulting in lower stocking rates.

Effects on livestock

Paterson's curse contains pyrrolizidine alkaloids. These alkaloids cause liver damage if livestock graze the weed for extended periods. Liver damage reduces livestock productivity, reduces their productive lifespan (increasing stock replacement rates) and may result in death. The irreversible damage varies per animal and cannot be treated.

HOW TO IDENTIFY

Paterson's curse will usually germinate in early autumn with rosette leaves forming in an oval shape up to 35cm in length. In spring the plant will grow branched stems anywhere from 20cm – 200cm in height. The stems are covered in stiff bristles which can cause some discomfort when touched. The top of the plant will have 3-5 trumpet shaped purple flowers on it.



DOMINATES OTHER SPECIES



TRUMPET LIKE FLOWERS



SEEDLINGS GROW QUICKLY



STEMS COVERED IN BRISTLES

Images: NSW DPI

CONTROL AND MANAGEMENT

Control of Paterson's curse is not only important to your livestock but also to your pastures. Preventing seeds from entering uncontaminated areas is a high priority. Paterson's curse can only be spread via seed movement and to limit the possibility of it entering your property, you should:



Feed hay and grains which have come only from clean paddocks;



Quarantine any stock which has been in an infested area - seeds can pass through stock without losing any viability;



Clean all machinery before leaving infested areas.

An integrated approach to prevent seeds from setting for long term control is highly recommended, these include:



Spray grazing



Hand weeding



Planting competitive crops

RESPONSIBILITY

For land owners under the Biosecurity Act 2015, you have a General Biosecurity Duty (GBD) where you are expected to, within reason know about any weeds which may impact your land. Owners should have a plan of management in place to reduce, minimise or eliminate the risk posed by weeds on your property.

When you report Paterson's curse, the infected area will be inspected Council along with a management strategy plan. A follow-up inspection will then be arranged. Council is responsible for enforcing the Biosecurity Act 2015 and its regulations. This includes fines for failure to comply with GBD.

FOR MORE INFORMATION

Visit Council's website midwestern.nsw.gov.au, or the NSW DPI website www.dpi.nsw.gov.au and search 'weeds'. Council's Weeds Team are available to assist on 6378 2939 or at weeds.admin@midwestern.nsw.gov.au.

DISCLAIMER

The information contained in this fact sheet is general in nature and should not be relied upon as the complete source of information to be considered. This document is not intended as a substitute for consulting relevant legislation or for obtaining appropriate professional advice relevant to your particular circumstances.

References: NSW DPI.