noxious weeds

threatening the health of the local environment

### WEEDY PLANTS

Plants like Paterson's curse, with large, broad rosette leaves, shade and smother many native and desirable introduced pasture species. Control relies on an integrated approach to prevent seed set and reduce the populations over the long term. Such management involves using a combination of control methods. Reducing the reliance on herbicides has economical and environmental benefits by decreasing the risk of herbicide resistance and allowing weed management in most environments.

#### Paterson's curse (Echium plantagineum)

Paterson's curse or salvation jane (*Echium plantagineum*) is an annual or occasionally biennial herb to about a metre high, with distinctive bell-shaped purple flowers. It starts out as a flat rosette of leaves from which one or multiple flowering stems arise. The leaves and stems are hairy.

**Flowering begins in spring** and continues for several months until plants die in summer.

Seed generally germinates in the autumn after it is produced, but a small proportion remains in the soil, where it is viable for at least 5 years. Disturbance, such as cultivation, will stimulate germination.

**Seed is often introduced in stock feed** or contaminated pasture seed. It also sticks to livestock, machinery and clothing and spreads in water or in contaminated soil.

It is a **weed of crops, pasture and waste places**, especially roadsides, river banks and beds.

Paterson's curse is toxic to livestock, causing liver damage, although sheep appear to eat it without ill effect and in the dry inland it may be the only green feed available at times, hence its alternative name. Pigs and horses are most sensitive to it. It is usually avoided if other food is available, and so can become dominant in grazed pasture.

It is a very common weed of the inland grazing and cropping lands, with sporadic coastal infestations often appearing after drought, when hay has been imported from other areas.

It is listed as noxious in Bega Valley and Eurobodalla Shires, as is the very similar viper's bugloss.

**Prevent infestations by feeding pellets** rather than hay or grain, and check areas where hand feeding has occurred for seedlings.



Viper's bugloss

Paterson's cu

**Control is by chipping or spot-spraying** of isolated plants before they produce seed, or cultivate or boom-spray large infestations and establish a dense sward of grasses and clovers to out-compete weeds.

If using herbicides be sure to read the label and heed the label. Consult your local Council weeds staff or herbicide supplier for more detailed information about control methods.

## weedy plants: a threat to agriculture and the environment

for more information please contact:

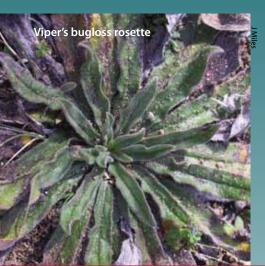
Illawarra District Noxious

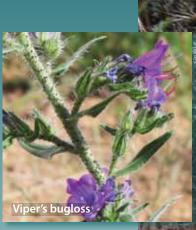
Weeds Authority (02) 4233 1129

Shoalhaven City Council (02) 4429 3111

Eurobodalla Shire Council (02) 4474 1000

Bega Valley Shire Council (02) 6499 2222





#### Viper's bugloss (Echium vulgare)

Viper's bugloss or blueweed (*Echium vulgare*) is similar to Paterson's curse. It is usually more erect in habit, and covered in coarse prickly hairs which make it unpleasant to handle. The rosette leaves are narrower and flowers have four protruding stamens (the pollen-bearing structures) instead of two. It is usually a biennial, not an annual.

Viper's bugloss is not a common coastal weed, but it is extremely common on the tablelands, particularly the Monaro, where it invades pasture and native vegetation such as grasslands and grassy woodland. It could become similarly invasive in drier coastal areas such as the Bega Valley.

The hairs on stems and leaves are irritating to livestock, particularly cow's udders. It appears to be unpalatable.





# Veined verbena Veined verbena

#### look-alike

The bell-shaped flowers of these two weeds are unmistakeable, but another purple-flowered weed is sometimes mistaken for them, as it can form similar large purple patches in the landscape.

**Veined verbena** (*Verbena rigida*) is a lowgrowing plant with tough, raspy opposite leaf pairs and clusters of tiny purple flowers in terminal heads.

It is **invasive in drier pastures** and spreads mostly by underground runners (rhizomes). It may also reduce carrying capacity and invade native vegetation but it is not listed as noxious.

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