

Plant Policy

rampion mignonette (*Reseda phyteuma*)



Government
of South Australia

Rampion mignonette is an introduced annual found in some vineyards in the Clare area of SA.

Invasiveness

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Rampion mignonette is an annual or short-lived perennial, with characteristics common to many opportunist weeds of cultivation. Its short life cycle, ability to flower at almost any season and high seed production (some of which germinate immediately while the others remain dormant) enable it to occupy soil that has been kept bare by cultivation.

The seed has no adaptations for dispersal but is moved on machinery, footwear and in water flowing across the surface.

Impacts

Rampion mignonette is a nuisance in some vineyards where management aims to keep soil under the vines bare. Many other annual weeds may be found in the same niche.

Experience has shown that it is not a strong competitor and does not invade adjoining pasture paddocks.

Potential distribution

Its native range includes the Mediterranean region, including Algeria, Morocco, Portugal, Spain, southern France, Italy and the Balkans. It is adapted to well-drained neutral to slightly alkaline soils, often over limestone. Much of the agricultural regions of SA could provide these conditions, but rampion mignonette has not become widespread.

Feasibility of Containment

Control costs

Glyphosate and desiccant herbicides are used to control rampion mignonette, along with other opportunistic annuals, in the vineyards where it occurs. Because of successive germinations at almost any time of the year, frequent spraying is needed to remove successive crops of seedlings.

The practice of trying to maintain bare ground under vines provides a niche for *opportunist annuals* such as *Epilobium* spp. and *Reseda phyteuma*. Mulching, or growing ground covers of grasses or other low-growing plants under the vines will also control these weeds by competition.

Persistence

Rampion mignonette is persistent in vineyards, where the soil is kept bare of perennial ground cover.

Current distribution

A survey in 1990 found 38 ha of vineyards infested within the Hundred of Clare. Apart from one record from Victoria, it has not been found wild anywhere else in Australia.

State Level Risk Assessment

Assessment using the Biosecurity SA Weed Risk Management System gave the following comparative weed risk and feasibility of containment scores by land use:

Land use	Weed Risk	Feasibility of control	Response at State Level
Crop/pasture rotation	negligible 4	very high 2	monitor
Perennial horticulture	negligible 0	very high 2	monitor

Considerations

Rampion mignonette is a minor weed of roadsides, walls, banks, fencelines and does not affect agriculture in its native range of the Mediterranean region.

In the mid 1980s rampion mignonette was first noted growing wild in vineyards at Clare. Due to its localised distribution and unknown potential as a weed in other situations such as pasture, the former Animal and Plant Control Commission recommended a policy of attempting to eradicate rampion mignonette, which was implemented as a containment program while more information about the plant was obtained. Experience and research since 1990 has demonstrated that a co-ordinated control program on rampion mignonette is not appropriate.

The cultivated plant *Reseda odorata* L. (sweet mignonette) is a hybrid derivative of *Reseda phyteuma* that has been widely planted in cottage gardens and cemeteries since colonial times. It sometimes persists in these habitats by self-seeding, and in time reverts to forms resembling the original *R. phyteuma*. This may have been the origin of the *R. phyteuma* populations at Clare. Alternatively, they may have originated from mixed seed of the two species imported and sown together, or as a casual introduction direct to the vineyard as seed on the footwear of an overseas visitor.

The regional NRM authorities did not find it necessary to use any of their powers under the Act to manage rampion mignonette from its declaration in 1990 up to 2013 . Any control actions needed on properties are carried out at the discretion of land owners.

Therefore, rampion mignonette is not declared under the *Natural Resources Management Act, 2004* in SA.

Synonymy

Reseda phyteuma L., Sp. Pl. 1:449 (1753)

Taxonomic synonyms:

Reseda aragonensis Loscos & Pardo, Ser. Inconf. 14 (1863)

Reseda calcinalis Lam., Fl. Franc. 3:204 (1778)

Reseda collina J.Gay, Expl. Sc. Alg. Bot. t.71 (1847)

Reseda confusa Pomel, Nouv. Mat. Fl. Alt. 1875:224 (1874)

Reseda tournefortii Schult., Obs. Bot. 89 (1809)

References

Carter, R.J. (1993). Rampion mignonette and its co-ordinated control. *Proc. 10th Australian & 14th Asian-Pacific Weed Conference, Brisbane*. (Weed Society of Queensland: Brisbane).

Martín-Bravo, S., Meimberg, H., Luceño, M., Märkl, W., Valcárcel, V., Bräuchler, C., Vargas, P. & Heubl, G. (2007) Molecular systematics and biogeography of Resedaceae based on ITS and *trnL-F* sequences. *Molecular Phylogenetics and Evolution* 44: 1105–1120.

St.John-Sweeting, R. (1992) The Biology and Ecology of Rampion Mignonette. *Report to the South Australian Animal and Plant Control Commission*. 8 pp.

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