

The biology and non-chemical control of Swine-cress
(*Coronopus squamatus* (Forssk.) Asch.)

W Bond, R Turner, G Davies

HDRA, Ryton Organic Gardens, Coventry, CV8, 3LG, UK

Swine-cress

(Swine's Cress, Wart-cress)

***Coronopus squamatus* (Forssk.) Asch.**

(*Cochlearia coronopus* L., *Senerbiera coronopus* Poiret)

Occurrence

Swine-cress is an annual or biennial herb that occurs locally in waste and cultivated places, farmyards, pastures, paths, in gateways and by roadsides (Bates, 1935). It is not usually a troublesome weed (Long, 1938). Swine-cress is common in southern and eastern England but infrequent further north (Clapham et al., 1987; Stace, 1997). It is not found above 1,000 ft (Salisbury, 1961). It is characteristic of clay soils (Brenchley, 1911). Swine-cress prefers nutrient rich soil and is tolerant of trampling. It is often found around manure heaps (Morse & Palmer, 1925).

Leaf size and shape is variable (Rich, 1991).

Biology

Swine-cress flowers from June to September (Clapham et al., 1987), or May to October (Rich, 1991). It can be found in fruit for 3 months of the year (Salisbury, 1962).

Seeds sown in a 75 mm layer of soil in open cylinders in the field and stirred periodically remained dormant until they had passed through the first winter following sowing in autumn (Roberts, 1986). In the year after sowing seedlings emerged from February to October with peaks of emergence in April and September. Seedlings continued to emerge over the 5 years of the study and viable seeds still remained when the study ended. Seed sown in May germinated in 14 days (Long, 1938).

Persistence and Spread

Seeds can remain viable for more than 5 years in cultivated soils (Roberts, 1986).

Management

Swine-cress is not considered a serious arable weed (Morse & Palmer, 1925). Surface tillage, hoeing and the growing of root crops should keep it in check (Long, 1938).

In pasture, very intensive grazing encourages the development of swine-cress (Horne, 1953).

Acknowledgement

This review was compiled as part of the Organic Weed Management Project, OF 0315, funded by DEFRA.

References

- Bates G H** (1935). The vegetation of footpaths, sidewalks, cart-tracks and gateways. *Journal of Ecology* **23** (2), 470-487.
- Brenchley W E** (1911). The weeds of arable land in relation to the soils on which they grow. *Annals of Botany* **25**, 155-165.
- Clapham A R, Tutin T G, Moore D M** (1987). Flora of the British Isles, 3rd edition, Cambridge University Press, Cambridge, UK.
- Horne F R** (1953). The significance of weed seeds in relation to crop production. *Proceedings of the 1st British Weed Control Conference*, Margate, UK, 372-399.
- Long H C** (1938). Weeds of arable land. *MAFF Bulletin* **108**, 2nd edition. HMSO, London, UK.
- Morse R & Palmer R** (1925). *British weeds their identification and control*. Ernest Benn Ltd, London, UK.
- Rich T C G** (1991). Crucifers of Great Britain and Ireland. *BSBI Handbook No. 6*. Botanical Society of the British Isles, London, UK.
- Roberts H A** (1986). Seed persistence in soil and seasonal emergence in plant species from different habitats. *Journal of Applied Ecology* **23**, 639-656.
- Salisbury E J** (1961). *Weeds & Aliens*. New Naturalist Series, Collins, London.
- Salisbury E** (1962). The biology of garden weeds. Part I. *Journal of the Royal Horticultural Society* **87**, 338-350 & 390-404.
- Stace C** (1997). *New Flora of the British Isles*. 2nd edition. Cambridge University Press, Cambridge, UK.