

Nova Scotia Noxious Weeds

Field Bindweed *Convolvulus arvensis* L.

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Field bindweed forms dense mats with its long, thin stems. The stems will also wind around and climb over other plants, always going in a counter clockwise direction. The leaves are arrow-shaped and light green when young, becoming more blue green with age. The undersurface of the leaves has prominent veins. The base of each leaf is split into two lobes, which may be either pointed or rounded. At the seedling stage, field bindweed resembles wild buckwheat, but does not have a papery sheath at the base of the leaf stem as is found with species in the buckwheat family.



The flowers of field bindweed are small, white or pale pink, and trumpet shaped (25 mm across). Throughout the flowering season, late June until frost, the flowers occur singly, or sometimes in groups of 2 or 4. The flowers are quite similar to those of cultivated morning glory, although much smaller. Seed pods are egg shaped (3 mm across) and contain 1 to 4 seeds.

The roots of field bindweed are white, fleshy, and cord-like. It has a thick, deep taproot and shallow spreading rhizomes.

Habitat

Field bindweed prefers cultivated land, including grain fields, pastures, orchards, and meadows. It can also be found along roadsides and in waste places. This weed grows well in dry to moderately moist soil and is able to survive long periods of water stress. Bindweed prefers to climb up and around other plants, but will form dense mats of stems on the ground if there is nothing available for it to climb.

Field bindweed is uncommon in Nova Scotia, with a few occurrences around Truro and in the western portion of the province. It may also be found on rare occasions in Cape Breton.

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Field bindweed originated in Europe and is sometimes known as European bindweed. It is also called small flowered morning glory, cornbine, lesser bindweed, barbine, creeping jenny, and devil's guts.

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Life Cycle

Field bindweed is a perennial which spreads via seeds and rootstock. The seeds are very resistant to damage and remain viable through the digestive tracts of birds who commonly eat and disperse them. Seed also moves with feed and seed supplies or clings to the mud on farm vehicles. The seed can move easily by water, and seed buried in the soil may be viable for up to 20 years.



Spread also occurs by the perennial rootstocks of the plant, which produce root and shoot buds. This makes it difficult to control because the roots can be very deep and extensive, and produce many new plants.

Effects

Field bindweed is a very detrimental weed in agricultural situations. It spreads rapidly by its underground rootstocks, quickly covering large areas in pastures or fields, out competing forages. It will seriously reduce crop yields by reducing soil moisture available to other plants. Furthermore, field bindweed often climbs other plants, eventually pulling them down and smothering them completely. It may also become tangled in harvesting equipment.

Control

Field bindweed normally grows low to the ground, which gives it a disadvantage in competing effectively for sunlight in established crops. Closed stands of alfalfa may be the best competitor for this weed. Constant tillage will deprive the plant of underground food reserves, gradually decreasing the root quality, and eventually controlling the weed effectively. The best control can be achieved by combining rotation of competitive crops, cultivation, and herbicides.

Recommended herbicides are 2,4-D, glyphosate, or dicamba. Several applications will be required beginning in early June when the plant is flowering, repeating each time new growth appears. For application rates or further information, contact your weed inspector or consult the most recent Guide to Weed Control (Publication 75).

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