



Biological Control Of Noxious Weeds

What is Biological Control?

Biological control is the intentional use of living organisms to try and suppress the population of a pest to an acceptable level. These insects are natural enemies of the targeted weeds that come from the weed's native ecosystem.

Biological control agents impact weeds in two ways: Direct Impact—destroys vital plant tissues and functions or Indirect Impact—increases stress on the weeds, which may reduce their ability to compete with desirable plants.

Once the insects are introduced to an area, it may take several years for them to become established and to reach a density where it will have an impact on the weed.

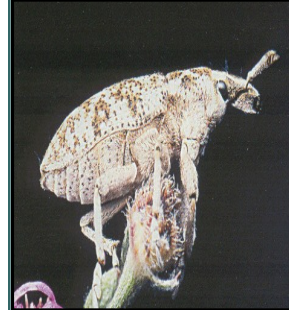
Biological control can be integrated with other practices to reduce weed populations. Herbicides can be applied to an area surrounding the bio-release to provide a buffer strip against neighboring properties or areas that do not have noxious weeds.

It is important to keep in mind that biological control is a slow process **and will not eradicate noxious weeds.**

However, they do have their place in an integrated pest management control plan, it is important to contact the Spokane County Noxious Weed Control Board to determine if this would be an effective control method for your property.

Biological Agents available for Spotted and Diffuse Knapweed:

Larinus minutus— this long-lived beetle lays its eggs throughout the summer on the flowers of both diffuse and spotted knapweeds. These species contribute to reducing the production of new seeds.



Knapweed, cont'd:

Cyphocleonus achates— is a large weevil that lays approximately 100 eggs at the base of older knapweed plants. The larvae mines into the taproot, and feeds on the root reserves.

Biological Agents available for Leafy Spurge:

Aphthona nigricutis— there are several flea beetles in the *Aphthona* family, including *A. lacertosa* and *A. flava* that attack leafy spurge. They feed on the leaves and bracts and females lay about 250 eggs on spurge stems. The larvae will feed on the roots and cause considerable damage to the plant.



Biological Agent available for Dalmatian Toadflax:



Mecinus janthinus— is a stem-boring weevil that has shown the ability to kill Dalmatian toadflax plants and reduce infestations. Adults feed on young shoot tips, and may reduce flowering.

There are also biological agents available for:

St. Johnswort

Rush Skeletonweed

Purple Loosestrife

Canada Thistle

For more information on Biological Control, contact:

USDA Animal & Plant Health Insp. Services (509) 353-2950

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