

Wireworms

Wireworms are the larvae of click beetles (Family Elateridae). Three species of wireworms are found in Nova Scotia: *Agriotes lineatus*, *A. obscurus* and *A. sputator*.

Identification:

Wireworm larvae are orange to brown in colour, shiny, slender and hard bodied. There are six legs toward the head region and at the head; there is a pair of pincer-like protrusions. Wireworms usually reach a size of 1-4 cm (0.4-1.6 inches) in length.



Magnification = 2.5 x

Adult Click Beetle
(Photo by: Stephen Crozier, NSAC)



Magnification = 3 x

Click Beetle Larva (Wireworm)
(Photo by: R.E.L. Rogers, Wildwood Labs Inc.)

Damage:

Wireworms will feed on seeds, young plants, roots and tubers of carrots, potatoes, corn, turnip, sweet potato and other root crops. The insect will tunnel into roots and tubers, causing holes that reduce the quality of the crop. Wireworm damage is more severe in crops planted on land that has recently been converted from sod or in fields that have many grassy and broadleaf weeds.

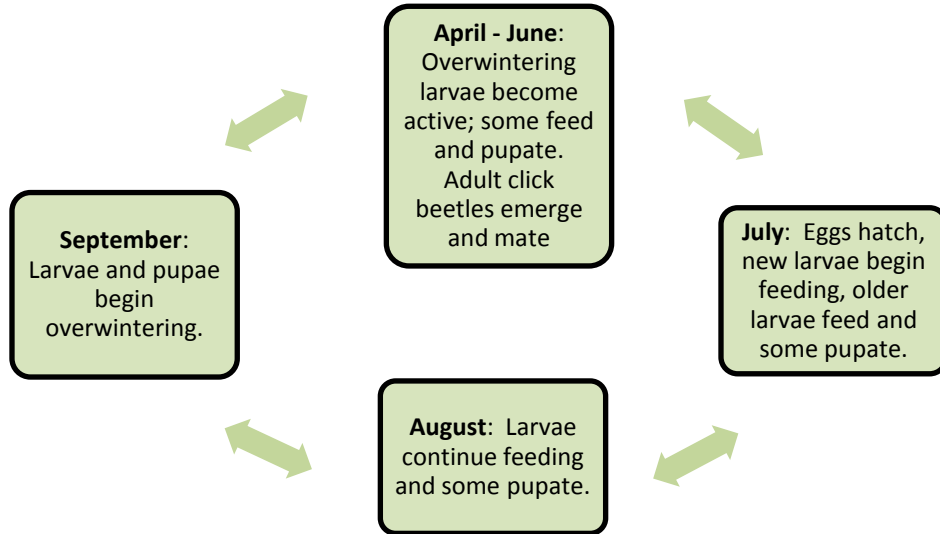
Monitoring:

If growers are planting into an unknown field or growing a crop in a field that is coming out of sod, it is advised to monitor the field for wireworm populations.

A simple technique is to dig several holes on the diagonal of the field and place a carrot or freshly cut potato 10 cm deep. Place cheese cloth over top of the carrot or potato. Cover the hole with soil, mark the spot and 2-3 days later examine. If one or two wireworms are found per sample, then it can be concluded that wireworms are well established in the field treatment is

necessary. If wireworm populations have reached high levels, it will take several years to eliminate or bring populations below threshold levels.

Lifecycle:



Best Management Techniques:

Wireworms in the soil are feeding off of decomposing organic plant material; therefore forage in the vegetable or potato rotation is undesirable. Crop rotation is extremely important in managing wireworms and as part of a control strategy, growers are advised not to grow crop in which wireworms thrive, mainly hay and sod, but instead to grow crops which can be treated for wireworms, such as wheat and corn. Trap cropping using a wheat crop treated for wireworms is exceptionally important as part of the overall control strategy, but even more so in fields with high infestation levels. Shallow cultivation in summer fallow situations helps to expose the wireworm larvae to birds and predators or mechanical damage.

Insecticide application is an important part of overall wireworm management. For the 2007 growing season, Furadan 480 F systemic liquid insecticide has been registered in Nova Scotia for the reduction in numbers of wireworms. Please refer to the supplemental label for more information.

Managing wireworms requires regular and consistent monitoring and diligent field management; there is no quick fix solution for this pest.

For more information, please refer to the more detailed wireworm article at www.agrapoint.ca or contact: Alana Respondek, Horticulture Crop Specialist or Dr. Viliam Zvalo, Horticulture Crop Specialist at (902) 678-7722 or AgraPoint's Ag Info Centre 1-866-606-4636.