

# Below ground pests to watch out for in grass seed stands Spring 2024

## Information Bulletin

Date: March 2024

### Larvae to watch for in grasses this Spring:

In 2023, many turf and forage seed growers witnessed damage to fields around the Peace Region in both the spring and fall. Spring surveys on affected fields showed relatively high numbers of cutworms and sod webworms. There were a number of creeping red fescue fields that were completely destroyed while others showed damaged areas throughout the field. Again, this past fall there was a number of reports of damage on creeping red fescue seed fields. A survey of those fields found cutworms, sod webworms, wireworms and weevil larvae in the crowns of creeping red fescue plants. This bulletin is to help aid in scouting for the coming spring as these pests may continue to apply pressure on grass stands as the 2024 season starts.

### Scouting (April - June):

- Scouting earlier will allow time to gain a sense of risk of insect pressure on plants. It is recommended to start in areas where grass is exposed once the snow is melted off. This may first be the tops of hills or areas where snow has receded
- **Cutworms, sod webworms and most larvae become active once soil temperatures become warmer than 4°C during the day. Coincidentally, this is around the same temperature that fescue and other grasses start to grow.**
- Damage will appear similar looking to winterkill when entering a field.
- If damaged areas are noticeable, select plants that are on the edge of the damage. The below ground feeders will move to living plants and don't remain on grasses that are already dead. **Therefore, scout not in the dead patches, but at the perimeter of the dead patch where plants may still have some growth.**
- To start, inspect plants that are half brown and half green by pulling the plant out with its roots intact. **Plan to take a shovel and container or bucket when scouting as weevil larvae are quite small and can sometimes go unnoticed.**

### Information Compiled By:

**Keith Uloth** - BCPPM Pest Monitoring  
Phone: (250) 719-8322  
Email: pest@bcgrain.com

**Calvin Yoder** - PRFSA/SARDA Ag  
Phone: (780) 864-7663  
Email: calvinyoder123@gmail.com

**Jennifer Otani** - AAFC-Beaverlodge  
Phone: 780-354-4269  
Email: jennifer.otani@AGR.GC.CA

**Doug Thiessen and Sean Willsey** - Foster's Seed  
Phone: 780-518-3829  
Email: doug.thiessen@fosterseed.com  
sean.willsey@fosterseed.com

### References and More Information:

- Cutworm Pests of the Canadian Prairies (2017)  
(<https://publications.gc.ca/site/eng/9.834174/publication.html?wbdisable=false>)
- Guide to Pest Wireworms in Canadian Prairie Field Crop Production (2021)  
(<https://publications.gc.ca/site/eng/9.900365/publication.html>)
- Alberta Forage Manual 2nd Ed. (2021)  
(<https://open.alberta.ca/dataset/077326082x>)

The QR code below is to allow field access for members of the AAFC-Beaverlodge IPM lab. To allow members of the lab to attend any of your concerns out in the field they must first have written permission before entering your land. To make this as easy as possible on the producers please scan the code



Glassy Cutworm found just below the crown of plant in the root system (Top Left) Creeping Red Fescue May damage (Left), damaged fall stand in October (Right)

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## Insects to watch for:

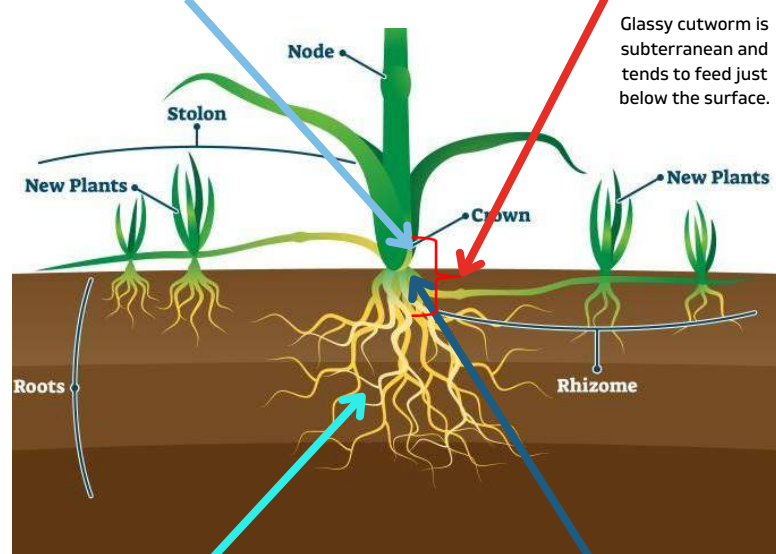
**Cutworm (Top Right):** Damage Location - Crown root interface

- It is the most economically damaging of the four pests found and should be the focus of creeping red fescue seed growers.
- Cutworms were the largest of the larvae found during Fall 2023 scouting.
- Cutworms, generally, are about 1.5 inches long (35mm-40mm).
- There are a number of cutworm species that can affect grasses but surveying found Glassy cutworm (*Apamea devastator*) to be predominate in the area.
- It is white in color with no hair on the body and has a reddish-brown head.



**Sod Webworms (Top Left):** Damage Location - Crown

- Sod webworms as a grass pest need to be in very high numbers when compared to an individual cutworm.
- Webworms tend to prune grass blades in the crown of the plant. Sod webworms are about half the size (20mm) of cutworms.
- Sod webworms, however, can have multiple generations in each season while cutworms will only have one generation per season.



## Control:

**NOTE:** There are no economic thresholds for any of these pests in grass seed or forage.

**Biological:** There are many beneficial insects at work in fields predated and parasitizing these pests.

- Ground beetles and rove beetles
- Ladybugs will predate on weevil larvae and sod webworms.
- Multiple species of parasitic wasps
- Wet Soil conditions promote fungal diseases that have been shown to greatly affect larval populations.

**Chemical:** Currently, no registered insecticides are available for the control of cutworm, sod webworm or weevil in grasses grown for seed. Further research into chemical control is needed to determine suitable products. Preliminary field trials were initiated using Coragen® (active ingredient Rynaxypyr; Grp 28) in 2023. Additional field efficacy data would be required to support an application for registered use in Canadian grass seed production systems.

Presently, wireworm control is limited to seed treatments for cereals.

**More insect control information** can be found by accessing the current Alberta Blue Book (<https://www.albertabluebook.com/>) Saskatchewan Guide to Crop Protection (<https://www.saskatchewan.ca/business/agriculture-natural-resources-and-industry/agribusiness-farmers-and-ranchers/crops-and-irrigation/crop-guides-and-publications/guide-to-crop-protection>) Manitoba Guide to Field Crop Protection (<https://www.gov.mb.ca/agriculture/crops/guides-and-publications/>) Western Committee on Crop Pests Guide to Integrated Control of Insect Pests of Crops (<https://www.westernforum.org/WCCP%20Guidelines.html>)



**Wireworm: (Roots)**

- Wireworm larvae are quite distinct
- Tend to be yellow – orange in colour, vary in length (10mm-25mm)
- Strictly subterranean and feed on the root system of a variety of grass and cereal plants.

**Weevil: (Crown)**

- Weevil larvae are quite small between 3-10mm in length
- White with an orange to yellow cap and tend to curl in a 'C' shape
- Appear to have no legs as seen in the picture.
- Within the plant, they can be found burrowed into the crown, surrounded by lots of grass and clipping debris.

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