

Montana small grain insects

Wheat stem sawfly

Cephus cinctus Norton (Hymenoptera: Cephidae)

The wheat stem sawfly was first found in native grasses and has become one of the most destructive insect pests in the northern Great Plains. It causes lodging and reduced head weight in wheat.

Capsule Information Series

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Adult

Adult sawflies are wasps which are about 3/4 inch long. They emerge from infested stubble in early summer, and fly to nearby fields. They lay eggs in stems of wheat or large hollow-stemmed grasses. Large stems are preferred. Wasps live for about a week, and fly short distances. Field borders may be more heavily infested.



Stem and larvae

Larvae (worms) hatch from eggs, and feed within stems. They feed up and down stems, and infested stems are filled with "sawdust". Damage reduces head weight by about 15%. Dark spots may appear below nodes of infested stems.

Mature larvae notch stems near the soil. These stems may lodge before harvest, especially if storms occur. Cut stems have a characteristic clean cut. Larvae overwinter underground in stem stubs. Native parasites frequently attack sawflies in grasses, but are of little importance in wheat.



Cut stem



Discolored stems

Larvae overwinter in stem stubs. Adults escape by pushing up through the plug in the top of the stubs. They cannot chew through the stems, but are able to push up through several inches of soil. Infested stems are filled with "sawdust".

Some Concepts:

- Till stubble around borders of infested fields to push crowns to the surface.
- Burying stubble with soil is not effective.
- Wild grasses in ditches may harbor sawflies.
- Swathing may reduce losses caused by lodging.
- Select resistant spring wheat varieties in areas where sawflies are common.
- New sawfly resistant winter wheats are being developed, but are not yet available.
- Insecticides have not been effective for controlling sawflies.
- Sawfly damage sometimes occurs in barley.
- Stem spots can be used to estimate extent of larval infestation.
- Damage is heaviest in field borders.