

### Colorado faces sawfly problems

If you see swarms of half-inch-long flying insects in or near wheat fields in northeastern Colorado, you may be seeing wheat-stem sawflies. This insect has been swarming in wheat fields for the past week in selective fields in northeastern Colorado.

The wheat stem sawfly, long considered a severe pest of wheat in Montana and North Dakota, has now been found infesting wheat in many areas of Northern Colorado. In addition, adult sawflies have been seen as far south as Cheyenne Wells. In the last three decades, it has become more abundant on winter wheat and spread into southeastern Wyoming and the Nebraska Panhandle. Colorado wheat growers should familiarize themselves with the sawfly's life cycle, damage and available management options.

The sawfly is the number one wheat pest in Montana, causing over \$25 million in losses each year. While it is unknown how important this pest will become in Colorado, it is important to be aware of and to monitor the situation.

The wheat stem sawfly emerges in May when field temperatures exceed 50 degrees Fahrenheit. The females are active for two to three weeks, placing egg singly in stems, just below the topmost node. Larvae develop in the stems and gradually work their way downward, eating stem tissues as they go.

When the stems begin to desiccate, the larvae cut a V-shaped notch around the interior of the stem just above the crown and seal the stem just below the notch, creating a chamber where they remain until the following spring. The stem often breaks at this notch, which leads to the lodging losses.

Effective chemical controls are not available, however. There are several cultural controls that have proven effective at reducing, but not eliminating, infestations. Tilling wheat fields after the harvest in the fall to loosen the stems and the soil around them maximizes exposure to adverse winter temperatures. Spring tillage buries the stubble and makes it difficult for adults to emerge.

However, the advantages of controlling the sawfly with tillage are far outweighed by the benefits of reduced tillage. Trap crops of other cereal grains, such as oats, barley and rye, planted between the wheat crop and adjacent stubble also have been used. These crops are attractive sites for egg laying but are not adequate for sawfly development.

## Green and Growing

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Planting wheat in larger blocks as opposed to narrow strips is another cultural practice that may reduce sawfly damage potential. This minimizes the amount of field border adjacent to stubble, which is the part of the crop most vulnerable to infestation.

Using solid-stemmed winter wheat cultivars is perhaps the most effective control. In areas where the sawfly is a recent arrival, wheat breeding programs are beginning to focus on incorporation of the solid stem characteristic into adapted varieties, using both conventional selection and linked DNA markers. The program at Colorado State University also has initiated a long-term research into novel methods for making the wheat plant less attractive to the sawfly.

If you observe damage or suspect the presence of wheat stem sawfly in fields, please contact me or your local Extension agent.

Frank Peairs, CSU Field Crops Entomologist has developed a fact sheet: Wheat Stem Sawfly; A new pest of Colorado wheat, and it can be found at [www.ext.colostate.edu/pubs/insect/05612.html](http://www.ext.colostate.edu/pubs/insect/05612.html)

Please contact Bruce Bosley for questions on this and other cropping systems topics at 970-980-4001 or [bruce.bosley@colostate.edu](mailto:bruce.bosley@colostate.edu).

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