

ATTENTION SUNFLOWER GROWERS

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When did you plant your sunflowers? This question is important for determining potential yield, oil concentration, and insect problems. The earlier planted fields may have larger seeds and a higher oil concentration. Conversely, insect problems often occur more severely in fields planted prior to the first of June.

The Central Great Plains region has seen economic losses due to the sunflower stem weevil since the 1994 growing season. Adult stem weevils are grey-brown in color with white spots on their upper body. They are small in size, only an eighth of an inch long. Feeding on the sunflower plants by the adults causes no significant damage. However, the opening can introduce diseases to the plants causing severe yield losses. Each female weevil must mate with a male and over the next two weeks may lay up to 20 eggs per plant. The eggs hatch from within a feeding scar caused by the adult. Once feeding by the larvae begins, the pith tissue inside the stalk will be the primary source of food. As fall approaches, the larvae will begin to move down the stalk and construct overwintering chambers in the woody portion of the plant just above the soil surface. These chambers weaken the stalk and allow high winds to lodge them. Economic damage is due to the heads laying on the ground and not being harvested.

Fields in the region that have four true leaves should be scouted carefully. Research has shown that 300 degree-days (using a 43 degree F base temperature) can be used as a guide for initial stem weevil activity. The Akron, Colorado area has accumulated over 900 degree-days for this season. This means that stem weevil emergence is nearing completion. Scouting for this insect is extremely difficult because of their tendency to drop to the ground at the slightest amount disturbance. Start by approaching a plant slowly with your face towards the sun. Your shadow cast over the plant will cause the weevil to drop off and go undetected. Look in the leaf axils and the undersides of the leaves as well as along the stem. After careful examination of several locations throughout the field, you will get a good idea of the population in your field. Treatment is justified when an average of one adult stem weevil per three plants can be found.

Controlling the sunflower stem weevil can be accomplished at planting or with foliar applications. Sunflowers planted before the first of June can be treated with Furadan 4F at planting. The application rate is 16-32 oz of product per acre using micro-tube injection in the seed furrow with equal parts water ahead of the press wheels. Foliar applications used in a timely manner are also effective. Registered chemicals for this purpose are: Asana XL, Carbaryl, Furadan 4F, Lorsban 4E, Scout X-TRA, and Warrior. Always read and follow label directions and restrictions. Please contact your local Cooperative Extension Service for more information.