

## What is a Corn Leafhopper?

The adult corn leafhopper is light tan in color and about 1/8 of an inch long. Its most distinguishing feature is two dark spots located between the eyes. The nymphs have no wings and are green to tan in color. They run rapidly across the under surface of the leaf when disturbed and may move from side to side and even backwards. Both adults and nymphs like to feed inside the whorl, particularly in young corn. Later, as the plants grow, they move out onto the underside of the leaves.



Adults are very small, tan, and have two distinct black spots between eyes

## What is the damage caused?

Corn leafhopper causes damage in two ways. **First**, leafhoppers directly feed on the plant, sucking out juices. Heavy populations can cause the leaves to dry; also, both the adults and nymphs produce sticky honeydew while they feed, which gets on the corn leaves. Black sooty mold frequently grows on the honeydew, reducing the photosynthetic capacity of the plant. **Secondly**, and more importantly, the leafhoppers transmit a pathogen called *Spiroplasma kunkelii*, a bacteria-like organism that causes the disease corn stunt. Corn stunt is much more debilitating to the plants than the direct feeding damage caused by the leafhopper. The pathogen responsible for corn stunt overwinters within the adult leafhopper, so leafhoppers emerging from overwintering in early spring can be infective, as can later generations. Corn stunt causes plants to be stunted and can cause significant yield losses.

## How to manage Corn Leafhopper?

Early planting and maintaining a corn-free period over the winter months are key strategies in avoiding damage from the corn leafhopper and the incidence of corn stunt disease. In sweet corn, the use of reflective mulches may be a feasible management option. Chemicals are not effective at reducing the spread of the corn stunt spiroplasma by the leafhopper.

### Treatment Calendar:

 Winter	 Spring	 Summer	 Fall
Control for corn-free period to reduce survival of overwintering leafhoppers	Plant early to allow crop growth before infestation occurs	Harvest all corn plants at the end of the growing season	Control for remaining maize and host volunteer plants

### Cultural controls:

- Leafhopper infestations and corn stunt disease become more severe as the growing season progresses. Planting as early as possible may help to lower the infestation rate of both, however, it will not eliminate the problem.
- Reflective plastic mulch has been shown to repel the adult leafhoppers and reduce the incidence of corn stunt disease in sweet corn. While this strategy is too expensive for use in silage or grain corn fields, it may be practical for sweet corn production.
- Growers are urged to control volunteer corn plants that emerge following harvest. This includes volunteer corn in alfalfa fields and in winter forage crops planted after corn harvest. The volunteer corn plants are often present until killed by frost. In mild winters, these plants may survive the entire winter, providing a winter host to adult and nymph leafhoppers, and allowing them to survive. It is very important to establish a corn-free period by harvesting all corn plants by the end of the growing season.