

## Cucurbits XXX-4

### Leafhoppers

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*leafhopper adult.*

*Note: Cucurbits may be easily injured by formulations of some insecticides. It is often a good precaution to not apply insecticides when foliage is wet. Be sure to check label before using to make sure insecticide will not cause plant injury and/or perform a small-scale test application to verify safety.*

#### Identification (and Life Cycle/Seasonal History)

Leafhoppers do not overwinter well in our region. When occasional late season damage occurs to pumpkins and some squashes, it is the result of northerly migrations of adults into our region, and the generation that is produced from this migration. Slender elongate eggs are often placed along leaf veins in a series. Both immatures and adults suck plant sap from leaves and stems. There are several green species in the genus *Empoasca* that occur in our region, and they are generally small (less than 5 millimeters [ $\frac{1}{4}$  inch] in length). The wings are held arched over the back.

#### Plant Response and Damage

Leafhopper immatures and adults suck the sap from their host plants and in very high densities may cause plant decline to pumpkins and some squashes. Injured leaves die back from their edge and appear scorched. This condition is known as "hopper burn."

#### Biological Control

Winter mortality is a principal mortality factor of leafhoppers in our region, resulting in these insects being considered late season occasional pests that rarely have to be controlled.

#### Chemical Control

*Note: Several insecticides are registered for leafhopper control when and if they become abundant late in the season. The following products are registered for pumpkins and winter and summer squashes, and may or may not be registered for other cucurbit crops. Check product labeling for usage restrictions.*

*Product List for Leafhoppers:*

<b>Insecticide</b>	<b>Product per acre</b>	<b>Preharvest Interval, Remarks</b>
Asana XL <sup>R1</sup>	5.8-9.6 fl oz	(3 days) Restricted Use. Proposed 24 hour reentry interval. Pyrethroid insecticide (esfenvalerate). Some rotation restrictions with root crops. Labeled for chemigation.
Diazinon AG500 Diazinon 50W	1-1.5 pt 1-1.5 lb	(3 days) Registered for use on winter squash only. Organophosphate insecticide. 24 hour reentry proposed. <b>Not</b> labeled for chemigation.
Ambush 2E <sup>R1</sup> Ambush 25WP <sup>R1</sup>	6.4 - 12.8 fl oz (2E) 6.4 - 12.8 oz (25WP)	0 day. Pyrethroid insecticide. Maximum 1.6 lb (AI)/acre per season.
Capture 2E <sup>R1</sup>	2.6 - 6.4 fl oz	3 days. Pyrethroid insecticide. Maximum 0.3 lb (AI)/acre/season.
Pounce 3.2EC <sup>R1</sup> Pounce 25WP <sup>R1</sup>	4 - 8 fl oz (3.2E) 6.4 - 12.8 oz (25WP)	0 day. Pyrethroid insecticide. Maximum 1.6 lb (AI)/acre per season.

<sup>R</sup>Restricted use pesticide. <sup>1</sup>Labeled for chemigation <sup>2</sup>Generic active ingredient, several formulations.

*The information herein is supplied with the understanding that no discrimination is intended and that listing of commercial products, necessary to this guide, implies no endorsement by the authors or the Extension Services of Nebraska, Colorado, Wyoming or Montana. Criticism of products or equipment not listed is neither implied nor intended. Due to constantly changing labels, laws and regulations, the Extension Services can assume no liability for the suggested use of chemicals contained herein. Pesticides must be applied legally complying with all label directions and precautions on the pesticide container and any supplemental labeling and rules of state and federal pesticide regulatory agencies. State rules and regulations and special pesticide use allowances may vary from state to state: contact your State Department of Agriculture for the rules, regulations and allowances applicable in your state and locality.*

Categories: Insects, Cucurbits, Cucumber, Melons, Squash, Pumpkins, Leafhoppers

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