

Sweet Corn XXXVI

Banks Grass Mite

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Identification (and life cycle/seasonal history)

Banks grass mite is pale green and usually the only mite found on sweet corn. Rarely, twospotted spider mite is associated with this crop but never is found in damaging numbers on sweet corn.

Banks grass mite is a general feeder on many grass species and winters on winter wheat and weedy grasses along field edges. Dispersal into fields is largely by blowing wind. Hot, dry weather may accelerate death of the spring grassy host plants and cause accelerated movement of Banks grass mites to move into irrigated crops.

Life cycle on sweet corn is similar to the normal life cycle of spider mites. Eggs are laid on leaves. Immature stages (larva, protonymph, deutonymph) can be completed quickly under summer temperatures, in under two weeks, and females may lay several eggs daily.

Plant Response to Damage

Banks grass mites suck sap from the leaves, producing light flecking wounds at the feeding site. In high population, Banks grass mite will cause leaves to prematurely die, although this is uncommon in sweet corn that is picked for fresh market. Greatest injury is to the appearance of husks, which can be seriously bleached and discolored by Banks grass mite feeding.

Sweet corn grown for seed is more commonly damaged by Banks grass mite, since mites have more time to develop on maturing plants. Reduction in yield (seed weight) from leaf damage can be caused by Banks grass mite.

Management Approaches

Biological Control

Banks grass mite has numerous natural enemies including minute pirate bugs, predatory mites and certain lady beetles. Problems with Banks grass mite often result from use of certain pesticides that destroy these natural enemies and do not affect Banks grass mite.

Cultural Control

Sweet corn fields should not be located adjacent to small grains, particularly winter wheat. Large grassy areas adjacent to sweet corn fields will also increase risk of Banks grass mite problems in sweet corn.

Sampling

Banks grass mite infestations originate in the lower leaves. Some discoloration from feeding injury is often visible at early stages of infestation, typically in the form of bleached patches around the main leaf vein. A hand lens is usually needed to see well the mites and their eggs on the leaves.

Chemical Control

Relatively few pesticides are very effective for Banks grass mite. Some pesticides may aggravate problems by destroying natural enemies.

Where Banks grass mite problems are common fields should be checked prior to tasseling. Control is best achieved when applications are made to small colonies; outbreaks can be difficult to control.

Product List for Banks grass mite on Sweet Corn:

Insecticide	Lbs Active Ingredient Per Acre (Fl. oz. or oz. product)	Preharvest Interval, Remarks
Warrior	0.02-0.03 lb (2.56-3.84 fl. oz.)	(1 day, 24 hour reentry) Pyrethroid insecticide. Maximum application of 0.25 lb AI/acre per season of 3.84 pt/acre of product per season
Capture 2E	0.08-0.1 lb (5.12-6.4 fl. oz.)	18 day reentry for fresh market; 24 hour reentry for processing sweet corn. Pyrethroid insecticide.
Comite II	2 1/4 pts/A	24(c) registration for Colorado only. 30 day PHI, 7 day reentry. One application per season maximum. Selective miticide.

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Categories: Banks Grass Mite, Insects, Sweet Corn

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