Dow AgroSciences
Mycogen® SEEDS

AGRONOMY BULLETIN 45 — BROWN MARMORATED STINK BUG

MANAGE THIS NEW PEST TO PROTECT YIELD

SITUATION

The brown marmorated stink bug (BMSB) is an invasive species that is causing economic damage to fruit, vegetable and agronomic crops in the Mid-Atlantic states. The insect now is expanding its range westward across the Corn Belt.

The brown marmorated stink bug has arrived in the Corn Belt and may become a major concern for corn and soybean growers.

FACTORS TO CONSIDER

- Insect identification
- Insect biology
- Identifying damage
- Management options

ACTION PLAN

1. **Identify the insect.** BMSB adults are less than 1 inch long and are various shades of brown. The term "marmorated" means marbled or mottled in appearance. Like other stink bugs, BMSB has a distinctive shield shape, but it can be distinguished by light-colored bands on the antennae and alternating light and dark areas on the abdomen. As the name implies, BMSB emits a strong odor when disturbed.

2. **Understand the life cycle.** BMSB is a true bug and does not go through a complete metamorphosis, but instead progresses through five nymphal stages or instars. Unlike other stink bugs, BMSB favors overwintering in man-made structures. Adults emerge in late spring and begin to feed on a broad range of host plants. Two to three weeks after emerging, adults begin mating. Females lay eggs in clusters on the underside of plant leaves from June through August. BMSB begins to aggregate on structures in September, becoming a nuisance to homeowners.

3. **Recognize damage.** All stink bugs have piercing-sucking mouthparts called stylets, which they use to puncture plant parts and remove nutrients. This puncturing causes aesthetic damage in fruit crops, making them unmarketable. In corn, damage during the early vegetative stage will appear as a sequence of identical holes perpendicular to the leaf that are ringed in yellow. Damage to the growing point can cause suckering or deformity. Insects also will pierce developing kernels, reducing grain fill and yield. In soybeans, insects puncture developing pods and cause immature small seeds. Heavy feeding can induce green stem and leaf retention, which can greatly hamper harvesting ability.

4. **Consider control options.** Since this pest is relatively new, the academic community has not established firm management guidelines and economic thresholds. Until further Integrated Pest Management techniques are developed, insecticides are the only control option for growers facing heavy infestations. Many pyrethroid and organophosphate insecticides will kill BMSB, but at the expense of other beneficial insects. Both Cobalt® and Lorsban® Advanced insecticides from Dow AgroSciences offer control of BMSB. Because BMSB typically enters corn and soybean fields from other host plants, it may be necessary to treat only the outside affected rows.

SUMMARY

BMSB has left its mark on fruit and vegetable crops and is now moving into corn and soybean fields. Be diligent about scouting and turn to insecticides when necessary to manage this pest. Contact your local Mycogen Seeds customer agronomist or trusted agronomic adviser for more information.

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