

## Time to scout for western bean cutworm moth in Colorado

Assefa Gebre-Amlak

Pest Management Specialist

It is time to monitor cornfields for western bean cutworm moth eggs in around northeastern Colorado now. According to Colorado State University Extension historic data, the moth population will peak between the third week of July and first week of August in Colorado, (<http://northernipm.colostate.edu/>). This insect attacks both corn and dry beans.

Eggs of western bean cutworm are deposited in clusters on the top surface of leaves. Following hatch, young western bean cutworm larvae move to one of the two places on corn plant, depending on the stage of development. If the has not tasseled, larvae will feed on pollen in the developing tassel. If the corn has tasseled, larvae will on silk in the ear. Once the ear is formed, the larvae will feed on developing kernels and cause direct and indirect damage to kernels.

Control is expected with only from those Bt corn hybrids containing the Herculex I or Herculex Xtra events. For corn hybrids that do not contains these events, fields should be scouted for this pest the next three weeks; good control will be difficult once the larvae move into ears.

Monitoring for this insect based on determining the per cent of corn plants with egg masses. Chemical control is justifiable if eight per cent or more of the plants have egg masses or small larvae in the tassels and the crop is at least 95 percent tasseled. If tasseling is much less than this, the economic threshold should be raised to as fewer larvae are likely to reach the ears.

Effective insecticide products are found in the High Plains IPM Guide: (<https://wiki.bugwood.org/HPIPm>). Many of the insecticides registered for western bean cutworm have been associated with spider mite outbreaks, so fields should be monitored for mites after a treatment is made.

Scouting for western bean cutworm in dry beans is extremely difficult. Egg masses are very difficult to find in the dense canopy of bean leaves. Both eggs and larvae are easier to scout for in corn than in beans; therefore, corn can be sampled to determine damage potential in the adjacent beans. If corn is infested, adjacent beans are at a higher risk to be infested also.

Treatment decisions in dry beans can also be based on larval counts, light trap catches, and pheromone trap catches. It is difficult to scout for western bean cutworm larvae in dry beans, but treatments are currently recommended in irrigated beans when two or more larvae are found per row foot prior to movement of larvae onto developing pods.

After pre-tassel cornfields are no longer available, moths tend to lay more eggs in dry beans. This switch generally corresponds to the time when pheromone trap catches peak. Western bean cutworm larvae will begin to damage pods approximately three weeks after peak pheromone trap catch. When trap catches indicate increased risk for economic losses (<https://wiki.bugwood.org/HPIPm>), apply insecticides 10 to 20 days after the peak flight occurred to prevent pod damage. If a field has received a foliar treatment for Mexican bean beetle after peak moth flight, it is unlikely that it will need an additional western bean cutworm

treatment unless the treatment was applied well ahead of the moth activity period. Pyrethroid insecticides are highly effective at controlling western bean cutworms in both corn and dry beans.

The other pest to pay attention will be the **banks grass mite (BGM)**. Especially dry and hot conditions always increase spider mite problems during the growing season. Webbing on leaves and discoloration are often the first signs of an infestation. BGM builds on the plant the bottom up, treat when there is visible damage in the lower third of the plant and small colonies are present in the middle third of the plant before hard dough stage. Effective products for BGM management can be found in the High Plains IPM Guide: <https://wiki.bugwood.org/HPIPm>).