

AUGUST 2015

### Bad Year for Stink Bugs

In the last 3-4 weeks I have been seeing fairly substantial amounts of stink bug damage in tomatoes throughout much of Maryland with the worse being in the southern part of the state. This stink bug damage has not been caused by the brown marmorated stink bug, all the damage I have seen has been from our native brown (*Euschistus servus*) and green stink bugs (*Chinavia hilaris* or *Acrosternum hilare*). These two stink bugs are seen every year, or at least their damage is in tomatoes and peppers (Fig. 1). They feed by inserting their mouthparts into the fruit and withdrawing the liquid contents of cells, when nymphs feed on fruit they leave behind 'star-burst' patterns in the skin of the fruit (Fig. 2). This feeding leaves behind empty cells that are filled with air and appear as white slightly sunken areas known as 'cloudy spot' under the skin of green tomato or pepper fruit and as yellow sunken areas in red fruit. Peel away this outer skin and a spongy white area is found underneath (Fig. 3). This damage usually makes the fruit unmarketable. If you search for the pests you often have a hard time finding them as they will become frozen and drop from the plant onto the ground at the first sign of disturbance. The adults can be seen at times in the early morning feeding, but as the day becomes hotter they tend to move into the center of the plant. Stink bugs also feed extensively at night, which is another reason they are difficult to scout for. At times the nymphs can be found in the interior of the tomato or pepper plant where they feed on foliage and fruit. Often the only thing that alerts you to their presence is the damaged fruit, by then it is too late. Normally we see a small amount of damage to the fruit along the field edges, especially if these edges border woods. But for the last two years we have seen much more extensive feeding damage throughout tomato and to a lesser extent pepper fields.

I wish there were some simple straight forward recommendations I could give to growers as to how to manage these pests, but there are none. Try as we might no one has come up with a good sampling program for stink bugs. While we have come up with traps for the brown marmorated stink bug that have been somewhat useful, there are no effective traps for monitoring our more common stink bug species. That means we have to rely more on scouting for them, which has proved to be ineffective. Growers should look for any cloudy-spot damage in their fields starting on the edges nearest any woods. If feeding damage is found and there is a history of stink bug damage then a spray directed into the center of the plant at a high gallons per acre rate (100gal/a at least) is needed. Pyrethroids are generally recommended, but some growers have found they do not give satisfactory control (I think this is more do to not directing the nozzles correctly and by not using enough water/a). Using neonics such as Scorpion or Venom and combo products such as Endigo, Leverage, Durivo, etc. are alternative control strategies that have proven efficacious for stink bug management.

*Fig. 1 Stink Bug feeding damage to tomatoes*



*Fig. 2 Feeding damage by stink bug nymphs causing star-burst patterns*



*Fig. 3 Outer epidermal layer removed showing white spongy cells underneath*

