

Pest Facts

- Species of green stink bugs in soybeans:
 - Green stink bug = *Acrosternum hilare*
 - Southern green stink bug = *Nezara viridula*
 - Red-banded stink bug = *Piezodorus guildinii*
 - Red-shouldered stink bug = *Thyanta accerra*
- Only *Acrosternum* green stink bugs are native to North America; others are imported pests
- Normally wild host plants are preferred, but they may also include alfalfa, soybean, wheat, corn, clover, tobacco, apple, pear, pecan and tomato
- Stink bugs are especially troublesome in cotton where they affect the lint directly
- Stink bugs may cause severe yield and quality losses
- Losses in southern states have reached \$68 million annually from crop damage and insecticide costs



Green stink bug

Impact on Crop

- Favorable conditions:
 - Stink bugs are most problematic when appearing in soybean fields during pod fill and maturation
 - Late planted and late maturing soybeans
 - Fields with broadleaf weed growth, especially shepherd's purse
 - May be more numerous near field edges



Stink bug nymphs feeding on seed through pod wall

Pest Symptoms / Injury I.D.

- Prefer to feed on tender growth and developing seeds
 - Stink bugs feed by injecting digestive enzymes using a piercing sucking proboscis
 - These toxic enzymes dissolve the tissue which can then be re-ingested as through a straw



- Feeding may cause delayed maturity, green stem, and abnormal pods
- Seeds fed upon may be shriveled, deformed, undersized, or aborted
- In cases of viral infections, hyaline bleeding such as with this soybean mosaic virus can occur

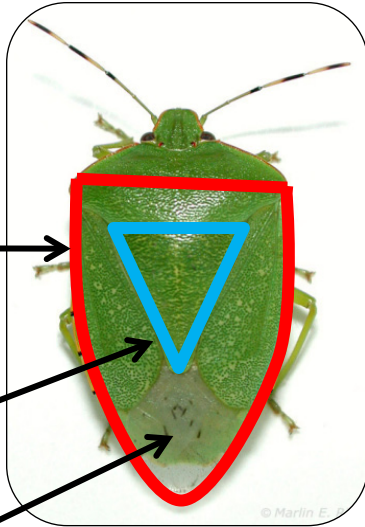


Feeding Proboscis



Pest I.D.

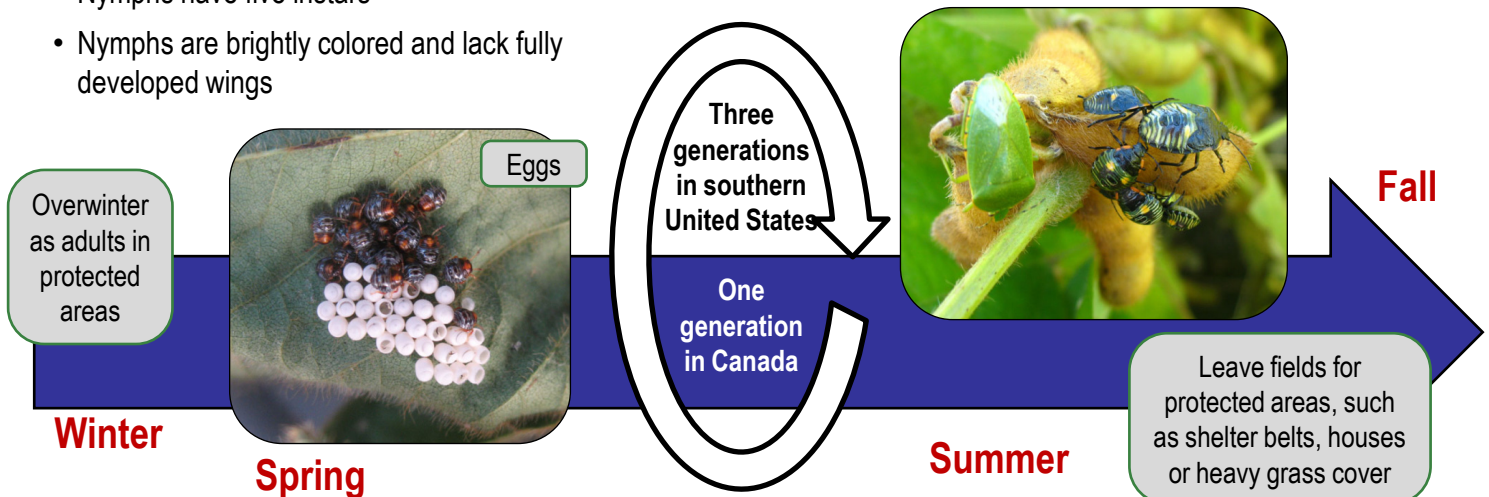
- Most green stinkbugs are about 1/2 to 5/8 inches long
- They can be readily identified by
 1. The general shield shape
 2. The internal triangle formed by the wing cover margins
 3. The clear forewing area of the wing tips



A red-banded green stink bug; the red is even more pronounced on the red-shouldered green stink bug

Stink Bug Lifecycle

- Develop with incomplete metamorphosis
- Eggs are “beer-barrel” shaped, laid in clusters
- Nymphs congregate after hatching
- Nymphs have five instars
- Nymphs are brightly colored and lack fully developed wings



Management Considerations

- Currently no native resistance or transgenic offerings are effective
- Some damage may be avoided by earlier planting, especially in the north
- Use a drop cloth or sweep net to estimate stink bug densities
- Economic threshold varies
 - 1/3 to 1 stink bug per foot of row during bloom through mid pod-fill stages may warrant treatment
 - As the beans mature, less damage can be prevented and the return from treating is lower
- Biological controls
 - Beneficial insects have only a small impact on stink bug populations
- Natural enemies:
 - Parasitic flies will lay eggs on adults, hatching maggots, then burrow into stink bugs and feed from within
 - Stink bugs are largely protected from predators by their foul smell and bad taste



Using a drop cloth



PIONEER
A DUPONT BUSINESS

Pioneer Agronomy Sciences ®, TM, SM Trademarks and service marks of Pioneer Hi-Bred. © 2010, PHII