

Insect management in corn

Katelyn Kesheimer Extension Entomologist Panhandle Corn and Soybean Update February, 2023



High risk situations

- Conservation or no-till and heavy residue
- Inadequate, late or no burndown
- Weedy or grassy borders
- Fields transitioning from pasture or CRP
- Fields next to pasture







https://www.dekalbasgrowdeltapine.com/en-us/agronomy/corn-growth-stages-and-gdu-requirements.html



Wireworms

- Damage: Can leave holes in seeds
- Burrow in base of seedlings, prune roots
- Cause stunting or plant death
- **Scouting**: Difficult to find, can burrow very deep; can use baits, but not always reliable
- **High risk areas**: Conservation tillage, fields with previous wireworm issues
- **Treatment**: No rescue options, at-plant insecticide or insecticide seed treatment











White grubs

- **Damage**: feed on plant roots or disrupt plant:root interface
- Scouting: dig up damaged plants and look for white grubs or root damage; white grubs are not difficult to find if damage is obvious
- **High-risk areas**: fields with poultry litter, fields previously in sod or another cover crop







Insecticidal Seed Treatments

- Most corn comes with a base rate of insecticidal seed treatments for secondary pests of corn
- 250 rate is most common
- Consider 500 or 1250 rate if you're in a high risk situation



Trade Name	Active Ingredient	
Poncho	Clothianidin	
Cruiser	Thiamethoxam	
Gaucho	Imidacloprid	





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Armyworms

- **Damage**: corn appears ragged; in high infestations, only midrib and stalk are left
- Corn can sustain moderate damage without yield loss and it often looks worse than it is
- As long as growing point is intact, replanting is not necessary
- Scouting: look for leaf damage including windowpane feeding and ragged leaves; worms will likely be present on leaves
- **High-risk areas**: no-till fields, corn that borders small grains or grassy area









Stink Bugs

- Several species of stink bugs infest corn and soybeans
- "Traditional" Species
 - Green SB
 - Southern Green SB
 - Brown SB
- "Invasive" Species
 - Brown Marmorated SB
 - Redbanded SB
- 4-6 weeks from 1st instar to adult**



- Overwinter as adults in protected areas
 - Early hosts include winter weeds & wheat
 - Mild winters encourage survival



Green Stink Bugs



Southern Green Stink Bugs

Nymphs: Brown when first hatched

Develop pink "spots" as they mature





Southern Green Stink Bugs Adults: Red "bands" on antennae





Brown Stink Bug



Adults: Few markings, brown Nymphs: rust or yellow color









Brown Marmorated Stink Bug

Adults: White "bands" on legs/antennae Nymphs: White "bands" on legs/antennae





Scouting for bugs and damage

- Scout early and often
 - V1 to R2
- They're sneaky! Will hide or drop off plant as you're scouting
- Look at plants 1-2 rows over
- Check several areas of the field
- Typically worse at the edge of the field









If left untreated...

Feeding occurs at growth stage:	Resulting damage:
V1-V6	Stunted growth Tillers formed Plant death
V14 – VT	Crooked ears Missing kernels
R1 – R4	↓kernel size + weight Pathogen introduction





Thresholds for stink bugs

Feeding occurs at growth stage:	Resulting damage:	Threshold
V1-V6	Stunted growth Tillers formed Plant death	1 stink bug / 10 plants
V14 – VT	Crooked ears Missing kernels	1 stink bug / 8 plants
R1 – R4	↓kernel size + weight Pathogen introduction	1 stink bug / 4 plants

Most important factors when treating:

Timing
Coverage









Stink Bug Thresholds

Bloom to mid-pod fill

- 2 per 5 row feet –or– 4 per 15 sweeps After mid-pod fill
- 5 per 5 row feet –or– 6 per 15 sweeps

Traditional Stink Bug Termination

• Double at R6 and terminate at R6.5 (7-10 d)

RBSB Termination

- 10 RBSB/25 sweeps between R6.5 and R7
- Terminate at R7 (unless adverse rainfall)



Questions?

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Alabama Crops Report



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January 17, 2023

Alabama Extension to Host Regional Precision Agriculture Workshops

As farmers prepare for the upcoming growing seasons, the dawning of a new year is a reminder of the new things to come. The Alabama Cooperative Extension System is planning two precision agriculture workshops in February. These workshops are designed to provide support to farmers as they implement precision agriculture technologies to strengthen preplanting, in-season and harvest management strategies. <u>Read More</u>

s**ode 3 – Managing Weeds in Corn** Dama Crops Report — March 18, 2021



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