











Tomato Insect Pests & Scouting Methods

► Learn to identify insects as beneficial or pests. The colorful images and plant injury information provided can help you make treatment decisions. Also included are sampling methods and economic thresholds.

Always identify insects correctly and decide if they are beneficial or pests before making a treatment decision. Seek the help of a regional Extension agent or send samples to the Pest Diagnostic Lab in Auburn or Birmingham. Readers are encouraged to subscribe to

the *Alabama IPM Communicator* newsletter listed at the end. More pest management articles and IPM training videos are available on the Beginning Farmer website and the Beginning Farmer Project YouTube channel.

Name	Plant Injury	Sampling Method & Economic Threshold (ET)
<p>Aphid</p> 	<p>Leaves, stem; early season pest</p>	<ul style="list-style-type: none"> ■ Record the number of leaves with wingless or nonmigratory aphids present. ■ Watch for ant and lady beetle populations on plants as a sign of infestation. ■ ET = 50% leaves have aphid in any plant stage
<p>Flea beetle</p> 	<p>Seedling leaves; defoliation threatening on a <6-inch plant; 3–4 generations can damage a lot of crop</p>	<ul style="list-style-type: none"> ■ Estimate the level of defoliation (shot holes) on 10 plants. ■ Sample adults with sweep net during midmorning hours (when beetles come up to bask in the sunlight) and relate it with foliar injury. ■ Observe natural enemy populations in field (e.g., big-eyed bug); abundance of these predators could indicate pest population. ■ ET = 5–10% foliar injury early in season, 25–30% foliar injury in midseason
<p>Colorado potato beetle</p> 	<p>Seedling leaves; defoliation less threatening on mature plants; has shown insecticide resistance in some areas</p>	<ul style="list-style-type: none"> ■ Beetle injury first appears on field margins in the form of leaf skeletonization. ■ Scout more intensely in short crop (<6–10 inches) ■ Adult beetles and larvae are easily seen on plants. Estimate number of insects on 10 plants at each location. ■ ET = 5 beetles per 10 plants in short crops or 10% defoliation
<p>Armyworm</p> 	<p>Has become a major pest across the state. Larvae make 1/6 inch round holes on fruits and may skeletonize leaves in early stages.</p>	<ul style="list-style-type: none"> ■ Look for egg masses covered with fuzzy hair under leaves. ■ Use pheromone traps to detect and monitor moth flight and activity. ■ ET = Risk is high if fresh feeding or egg masses are seen.

Name	Plant Injury	Sampling Method & Economic Threshold (ET)
<p>Tomato fruitworm</p> 	<p>Key insect of tomato and many other crops; feeding on fruit can severely reduce yields; prefers green fruit and stem end; larvae feed with part of body inside fruit; resistant to some insecticides</p>	<ul style="list-style-type: none"> ■ Pheromone traps can be used to monitor moths. Pheromone traps do not indicate actual crop injury but can indicate the suitable control time of this insect. ■ Scout for egg masses or larvae during fruit set. Larvae have four pairs of prolegs and feed near the top of fruit. ■ ET = 7 moths/pheromone trap or eggs present on foliage. Threat is high if fresh feeding damage occurs 1 per plant at green fruit stage.
<p>Stink bug</p> 	<p>Causes serious damage to ripening fruits (whitish-yellow spots or rings under skin)</p>	<ul style="list-style-type: none"> ■ Try using a sweep net to catch adults midmorning. ■ Scout intensively when fruit formation begins. Count insects on 10 plants randomly across a field. Sample more plants in large fields (>10 acres). On green fruits, black specks could indicate stink bug injury. ■ ET = 0.25 stink bugs per 10 plants at green fruit stage
<p>Leaffooted bugs</p> 	<p>Causes serious damage to blossoms and fruits similar to that of stink bugs. Also introduces yeast inside fruit during deep probing.</p>	<ul style="list-style-type: none"> ■ Influx of these insects appears to be heavy during July and August. Trap crops of sunflower and sorghum allow early detection of bugs. ■ Scout for egg masses that may be laid in a row on fruits, leaves, and plant stalks. ■ Distribution of bugs can be highly clumped. ■ ET = unknown in tomatoes; follow stink bug recommendation.
<p>Cabbage looper</p> 	<p>Leaves are damaged but fruits are spared; minor pest</p>	<ul style="list-style-type: none"> ■ Examine the leaves from 10 plants per location and look for larvae (cabbage looper larvae have two pairs of abdominal prolegs). ■ Look for fecal pellets on leaves. ■ ET = 5 looper larvae per 10 plants at any plant stage or defoliation greater than 20%
<p>Wireworm</p> 	<p>Can be a major problem early on because it severs seedlings while living at the soil-air interface; beetles are very attracted to grassy crops or weedy landscapes</p>	<ul style="list-style-type: none"> ■ Deploy germinating seed bait stations (wheat-corn mixture) at several locations in fields with a history of wireworm attack. ■ Use soil cores (sample around small tomato seedlings/transplants) and wash the dirt to recover larvae for count. ■ ET = 1 wireworm per seed bait (average from several baits across a field)
<p>Whitefly</p> 	<p>Occasionally becomes a major pest in South Alabama. Overuse of insecticides can increase population.</p>	<ul style="list-style-type: none"> ■ Look for white small insects with wings held rock-like over their body at an angle. ■ They regularly fly when disturbed and numerous. ■ Whiteflies may appear to settle like dust particles (outbreak status!)

IPM Web Resources for Specialty Crop Producers

- Download the Farming Basics mobile app for insect pest identification, communication with an Extension agent, and other useful information.
- The Beginning Farmer playlist on the Alabama Cooperative Extension System YouTube channel has many IPM training videos.
- Alabama IPM Communicator newsletter (current issue and archives) on the Alabama Extension website at www.aces.edu/ipmcommunicator.
- Alabama SARE program (for organic producers): www.southernsare.org/SARE-in-Your-State/Alabama.



Ayanava Majumdar, *Extension Specialist*, Auburn University; **Ann Chambliss**, Outreach Programs Administrator and IPM Program Assistant; and **Neil Kelly, James Miles, Gary Gray, Chris Becker**, County Extension Coordinator; **Gerald McQueen**, Retired Regional Extension Agent; and **Lloyd Chapman**, *Regional Extension Agents*

For more information, contact your county Extension office. Visit www.aces.edu/directory.

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