CORN INSECTS - ABOVE GROUND
Pest management begins with correctly identifying the problem.

1. European corn borer “shot hole” whorl damage, “windowpane” feeding from young larvae, and a mature borer in stalk cavity

2. Armyworm ragged leaf feeding on young plant and mature larva with distinct stripes

3. Corn flea beetle and “tracking” damage

4. Fall armyworm leaf whorl damage and larva with white inverted “Y” suture on front of head

5. Corn leaf aphids

6. Slug feeding or “scars” on lower leaf and dark-colored slug

7. Stalk borer and “dead heart” damage

8. Male (left) and female (right) western, northern, and southern corn rootworm beetles and poor pollination from beetle silk clipping
1. European Corn Borer, *Ostrinia nubilalis* (Hübner). Corn borer moths emerge in the spring and lay eggs on early-planted corn. Newly hatched larvae crawl into the corn whorl and begin feeding by scraping or “windowpaning” leaf tissue. Eventually they chew small random holes, which are revealed as the leaves emerge from the corn whorl, giving a “shot hole” appearance. Larger larva may enter leaf midribs and tunnel before crawling to leaf axils and boring into the stalk, where they create cavities to pupate. Soon second generation moths emerge and lay eggs, typically on late-planted and/or actively pollinating corn. Young borers feed in the leaf axils, behind the leaf sheaths, on the tassel, or between the ear husks. Older larvae bore into tassel, ear, ear shank, or stalk, where they may cause considerable plant lodging or ear droppage. Some years there may be a third generation.

2. Armyworm, *Pseudaletia unipuncta* (Haworth). The armyworm feeds primarily on plants of the grass family. Outbreaks occur only in certain years and in areas favorable for their development. Eggs are laid in dense grassy vegetation such as pastures, small grain fields, cover crops, and roadsides. As the caterpillars mature, they leave these areas and “march” in search of food. Armyworm feed at night and during cloudy days, giving corn a ragged appearance, with defoliation occurring from the leaf edge toward the midrib. Damage may be so extensive that most of the plant, except leaf midribs and the stalk, is consumed. Most outbreaks occur in the spring. Later generations are usually held in check by disease, insect parasites, and other natural enemies.

3. Corn Flea Beetle, *Chaetocnema pulicaria* Melsheimer. These tiny, black jumping beetles strip off the leaf’s green tissue in “tracks” early in the season. Heavily infested plants turn grayish in color, and the leaves shrivel and die, especially when growing conditions are poor and the plants are less than 4 or 5 inches tall. Larger plants outgrow the damage. In addition to feeding damage, this insect can also transmit a bacterium that causes Stewart’s disease, which is a greater threat to seed and sweet corn.

4. Fall Armyworm, *Spodoptera frugiperda* (J. E. Smith). Larvae feed on corn leaves and may attack the tassels and/or ears of corn. Their heads have predominant white, inverted Y-shaped sutures usually visible between the eyes. Damage appears as ragged-edged holes on leaves. Severe feeding may give the appearance of corn that has been tattered by hail. Infestations are usually patchy in fields because the moths, active from mid to late summer, often lay eggs on corn that has been delayed in development. Larvae actively feed during the day, but often are protected deep in the corn whorl by an excrement plug.

5. Corn Leaf Aphid, *Rhopalosiphum maidis* (Fitch). These small, soft-bodied “plant lice” cluster in the tightly wrapped whorl leaves and tassels of corn plants. There, they suck out water and nutrients from the plant and multiply in numbers. Their effect on yield is most noticeable when plants are under drought stress. While feeding, they secrete a sticky, sugary substance known as “honeydew” (excrement), which turns black as sooty molds grow on it. Heavily infested plants may be barren or produce only partly filled ears. Early-planted corn usually escapes injury, and some hybrids are more tolerant than others.

6. Slugs, several species. Slugs are soft-bodied, legless, slimy, gastropods (not insects) that vary in color from white, gray, or black. Feeding above ground at night, they rasp narrow, irregular, linear tracks or scars of various lengths on leaves. Stand losses can occur when seed slots aren’t properly closed during planting and slugs feeding below the soil surface destroy the corn’s growing point. Buildup of slug numbers is greatest in no-till systems, where high amounts of soil surface residue and moisture favor their development.

7. Stalk Borer, *Papaipema nebris* (Guenée). The stalk borer is a general feeder and will attack almost any kind of plant with a soft stem large enough to accommodate its body. Corn damage is usually confined to field edges, along waterways, or weedy patches that attracted moth egg laying the previous fall. The insect not only bores into seedlings, causing the center leaves to die (“dead heart”), but also feeds in early whorl corn, giving the plants a ragged appearance. Once they outgrow or destroy a plant, they abandon it and seek a new host.

8. Corn Rootworm Beetles, *Diabrotica* spp. These are the adults of rootworm larvae that feed on and damage corn roots. Beetles begin to emerge from the soil in late June to early July and can be found feeding on corn silks, tassels, and pollen for the remainder of the summer. Their silk clipping, if severe enough prior to pollination, can result in reduced kernel set. Before pollen shed, beetles may strip some corn leaves of green tissue, leaving a parchment-like appearance. Female beetles may remain in the field from which they emerged or disperse throughout the area to lay eggs in the soil. Monitoring beetles in corn or other crops such as soybean where first-year rootworm problems exist may help assess the potential larval damage threat to next year’s corn crop. All three species occur throughout the state, but the western beetle is the predominant species. The southern beetle is seldom an economic pest of corn in the Midwest.

Further Information:
The information and color illustrations presented here are designed to help you correctly identify some of the more common insects that attack corn above ground. Further information on these and other insect pests’ appearance, life history, damage, sampling methods, and management guidelines are available in the *Field Crops Pest Management Manual* (IPM-1). Copies of this publication, revised periodically, and other related materials are available through the Agricultural Communication Media Distribution Center, 301 South 2nd Street, Lafayette, IN 47901-1232, Phone: 765-494-6794, Fax: 765-496-1540, E-mail: Media.Order@ces.purdue.edu