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Common Arthropod Pests of Corn in North Dakota

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Corn Rootworms



Figure 1. Larvae - corn rootworm tunneling into root (P. Beauzay, NDSU)



Figure 2. Adult - northern corn rootworm

(V. Calles-Torrez, NDSU)



Figure 3. Adult female - western corn rootworm

(J. Knodel, NDSU)

Larva (Figure 1): Slender, white to cream body with brownish head capsule and brown anal plate at the posterior end, about ½ inch long when mature. Feeds on roots.

Adults:

Northern corn rootworm

(Figure 2): ¼ inch long, tan to pale green beetles.

Western corn rootworm: ⅜ to ½ inch long. Yellow to yellowish-green beetles with black markings on forewing. Most females **(Figure 3)** have three longitudinal black stripes on their forewings, and most males **(Figure 4)** have a nearly solid black marking.



Figure 4. Adult male - western corn rootworm

(P. Beauzay, NDSU)

Cutworm

Larva (Figure 5): Black to pale gray, cylindrical-shaped body with markings (spots or stripes), about 1½ to 2 inches long when mature. Cut young plants below or above ground.

Adult (Figure 6): Dark brown, black, drab gray, dull yellow or tan moths with wing markings, robust body, wingspan length of 1¼ to 1½ inches.

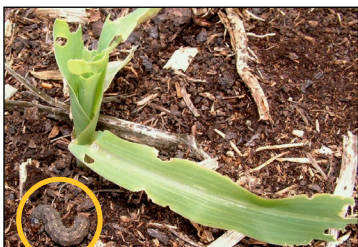


Figure 5. Larva - black cutworm and feeding injury to corn

(J. Kalisch, University of Nebraska)



Figure 6. Black cutworm moth

(J. Kalisch, University of Nebraska)

European Corn Borer

Larva (Figure 7): Pinkish gray or pale brown body marked with small brown dots in rows, brown head, about ¾ to 1 inch long when mature. Defoliate leaves and tunnel into stalks and corn ears/shanks.

Adult (Figure 8): Straw-colored (pale yellow-brown) with brown wavy bands on wings, and 1 inch wingspread.



Figure 7. Larva - European corn borer in corn ear

(V. Calles-Torrez, NDSU)



Figure 8. European corn borer moth

(J. Knodel, NDSU)

Grasshopper

Nymph (Figure 9): Resembles the adults, but smaller without fully developed wings (wing pads only).

Adult (Figure 10): About 1¾ inches long, brown to grayish green, prominent head, large compound eyes, enlarged hind legs for jumping. Fully developed wings.

Grasshoppers feed on leaves, silks and ear tips.

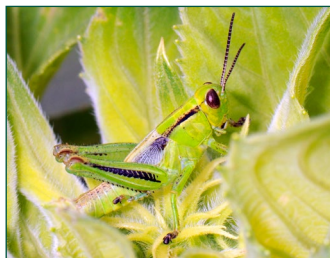


Figure 9. Nymph - grasshopper

(P. Beauzay, NDSU)



Figure 10. Adult - red-legged grasshopper feeding in corn ears

(J. Knodel, NDSU)

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Corn Aphid (Figure 11)



Nymph: Similar to adult but smaller, always without wings.

Adults: Small about 1/8 inch long, pear-shaped, pale to dark green, two cornicles (look like tail-pipes) at posterior end, winged or wingless.

Both nymphs and adults feed on plant juices.

Figure 11. Corn aphids and bird cherry-oat aphids, nymphs and adults
(V. Calles-Torrez, NDSU)

Seed Corn Maggot

Larva (Figure 12): Maggotlike, about 1/4 inch long, cylindrical, legless, pale yellow-white and sharply pointed at the head end with small black mouth hooks. Burrow into seeds, emerging stems and cotyledon leaves.

Adult (Figure 13): Grayish brown fly about 1/4 inch long.



Figure 12. Larva - seed corn maggot
(W. Cranshaw, Colorado State University, Bugwood.org)



Figure 13. Adult - seed corn maggot
(Pest and Diseases Image Library, Bugwood.org)

Spider Mite

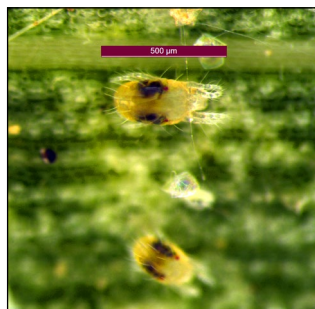


Figure 14. Two-spotted spider mites (P. Beauzay, NDSU)

Immature: Similar to adult, but smaller with six to eight legs.

Adult (Figure 14): Very small, less than 0.02 inch (magnification is needed to see them in detail), green, yellow or orange body, two dark spots on the abdomen for two-spotted spider mite, eight legs. Located on the underside of leaves. Produce spiderlike webbing (Figure 15) and stippling injury on leaves (Figure 16).

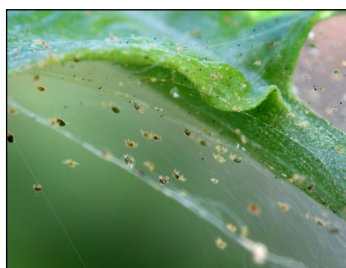


Figure 15. Webbing from two-spotted spider mites (D. Cappaert, Michigan State University, Bugwood.org)



Figure 16. Stippling injury from spider mites (nymphs and adults) on corn leaf
(P. Beauzay, NDSU)

White Grub/June Beetle

Larva (white grub, Figure 17): White to cream body with brown head, three pairs of legs, C-shaped, about 1 1/2 inches long when mature. Feeds on roots in soil.

Adult (Figure 18): Brown to reddish-brown beetles, about 3/4 inch long.



Figure 17. White grub
(S. Katovick, Bugwood.org)



Figure 18. June beetle
(S. Katovick, Bugwood.org)

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