

INSECTS



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Aphids

Latin name: Greenbug, *Schizaphis graminum*; Bird cherry-oat aphid, *Rhopalosiphum padi*; Corn leaf aphid, *Rhopalosiphum maidis*

When to scout: A complex of greenbug aphids, bird cherry-oat aphids, and corn leaf aphids can affect Louisiana wheat. Greenbug is by far the most damaging species. For greenbug, count the number of aphids in 1 row-foot at multiple sites in each field. Treat when populations reach 100-300 aphids per row-foot when plants are 3-6 inches high, 200-400 aphids at 4-8 inches high and 300-800 aphids at 6-19 inches high. Other aphid species may require treatment to prevent transmission of barley yellow dwarf virus.

Damage: Greenbug injures wheat by injecting a toxin into the plant, which results in yellowing, necrosis and death. Other aphids may stress wheat, particularly under dry conditions, but otherwise cause little direct damage. More important damage is caused by the aphid-transmitted disease, the barley yellow dwarf virus. The infested plants often become severely stunted and produce heads of reduced size.

Characteristics: All aphids affecting Louisiana wheat are similar in size and shape. They typically are about the size of a BB and pear shaped. Greenbug has a yellow-green head and upper thorax with a light to medium green abdomen. Bird cherry-oat aphid is brownish olive green with a darker reddish-orange spot toward the tip of the abdomen. Corn leaf aphid is dark olive to bluish green with a purplish area around its cornicles.



Greenbugs



Bird cherry-oat aphid



Corn leaf aphid

Armyworms

Latin name: Fall armyworm, *Spodoptera frugiperda* (J.E. Smith); True armyworm, *Pseudaletia unipuncta* (Haworth)

When to scout: Fall armyworms occasionally infest wheat during the fall, whereas true armyworms are most notable during the spring. Early planted wheat in particular, should be scouted for fall armyworms. Flocks of birds settling in young wheat often are indicative of an infestation. Wheat fields should be closely scouted for true armyworms prior to booting. True armyworms are night feeders and may hide under debris during the day. Treat armyworm infestations when five or more worms per square foot are found and foliage loss is evident. Pay particular attention to preventing the loss of flag leaves prior to heading.

Damage: Armyworms chew irregularly shaped hole in leaves, giving them a ragged appearance. Armyworms generally feed on lower leaves first and may eventually consume flag leaves or cut heads off.

Characteristics: Fall armyworms usually are greenish-brown or tan with the back marked by three longitudinal stripes. The most distinct characteristic is the prominent white inverted "Y" on the front of the head. True armyworms are brown to black in color and have an orange, white and brown stripe running the length of the body.



Armyworm on wheat



True armyworm



Fall armyworm

Cereal leaf beetle

Latin name: *Oulema melanopus* (L.)

When to scout: Cereal leaf beetle is seldom a significant pest of wheat in Louisiana. Beetles are active in the spring and should be scouted for beginning in March, although larvae do not appear until near heading. Scout by counting the number of adults and larvae from at least 10 stems per sample location. Check several locations within each field. Treatment should be considered if numbers exceed 25 per 100 stems.



Cereal beetle larva

Damage: Both adults and larvae will feed on leaves, but the larvae cause much more injury. Injury appears as skeletonized long strips where the leaf tissue has been consumed between the veins.

Characteristics: The cereal leaf beetle is a small beetle with a bluish-black head and abdomen and orange-red thorax. The larvae are pale orange grubs with brown to black heads and legs. The grubs usually are covered with shiny black mucous mixed with feces, which obscures their appearance.

Hessian fly

Latin name: *Mayetiola destructor* (Say)

When to scout: Visual detection of adult Hessian flies in the field may justify a foliar insecticide application. Once the larvae move into the base of the stem, rescue treatments are ineffective. To determine the need for preventive measure in future plantings, check for larvae and “flaxseed” pupae from 10 plants at each sample site in early spring. Multiple sample sites may be needed. Planting Hessian fly-resistant varieties is the most effective means of managing this pest.



Hessian fly larvae



Hessian fly larvae and pupae

Damage: Larvae feed on the stem at the joints under the leaf sheath. Stunted stems may lead to plant lodging, grain fill reduction and even death, especially in early plant stages. Reductions in yield usually occur when larvae or pupae are detected in at least 8 percent of tiller in the fall or 15 percent of stems in the spring.

Characteristics: Adults are small, dark, long-legged flies that resemble mosquitoes. Eggs are reddish and single or connected as “egg-line” on the upper leaf surface. Newly hatched larvae are orange; a few days later they become white. Pupae are brown, like flaxseeds.

Stink bugs

Latin name: Rice stink bug, *Oebalus pugnax* (F.);
Brown stink bug, *Euschistus servus* (Say)

When to scout: Stink bugs infest wheat after heading. Begin to scout when the crop is at the milk stage. Scout away from field edges, where stink bugs are more abundant. Treat when 10 percent of spikes (wheat heads) in the milk stage are infested or 25 percent of spikes in the soft dough stage are infested.

Damage: Stink bugs feed on developing seeds. Wheat is susceptible to stink bug injury during the milk and soft dough stages.

Characteristics: Stink bugs are shield-shaped insects. Rice stink bug adults are metallic brown with pointed shoulders facing forward. Brown stink bug adults are solid brown to mottled brown with rounded shoulders. Brown stink bug immatures (nymphs) are green. Stink bug adults measure up to ½ inch long.



Rice stink bug

Wireworms

Latin name: Numerous species of *Elateridae*

When to scout: Wireworm problems are more likely in wheat fields that recently were in pasture, sod or reduced-tillage grain crops. Wireworms live in the soil and can be sampled by setting up one bait station per 10 acres at least one to four weeks before planting. For each bait station, bury a handful of a mixture of fermented but untreated corn and wheat seeds 2-4 inches deep. Cover with a small mound of soil and clear or dark plastic. After one to two weeks, remove the soil and count the number of wireworms in each bait station. An average of one wireworm per bait station would justify insecticidal control.

Damage: Wireworms can feed directly on and kill the germinating wheat seed after planting. They also can feed on seedling stems and roots, which can result in stand loss or stunting.



Wireworm larva

Characteristics: Wireworms are hard bodied, elongated, shiny, wirelike larvae of click beetles. They have three pairs of legs, measure $\frac{1}{2}$ to 1 inch and are yellowish-brown.