

## **Forage Producers Need to Watch For Fall Armyworms**

WOW! What a difference good rain showers and few weeks makes. I can't remember the last time it was this green in East Texas at the beginning of September. With the good..you also must be looking out for the bad. If you are in the forage business whether it is the hay business or forage to feed beef or dairy cattle, horses, sheep or goats, then you need to be on the watch for fall armyworms. With the wonderful rain we are starting to receive, we have already have received a few calls and with the rain last week producers need to be diligent in watching their pastures and fields.

The fall armyworm has four life stages: egg, larva, pupa and adult. The fall armyworm has not shown the ability to go into dormancy so its ability to survive winter depends on the severity of the temperature. The fall armyworm does overwinter in the southern regions of Texas in the pupal stage. The adult is a moth that migrates northward as temperatures increase in the spring. The adult moth has a wingspan of about 1.5 in. The hind wings are white; the front wings are dark gray, mottled with lighter and darker splotched. Each forewing has a noticeable whitish spot near the extreme tip.

Eggs are very small, white laid in clusters of 50 or more and are covered with grayish, fuzzy scales from the body of the female moth. The eggs are seldom seen and are laid at the base of appropriate host plants.

Larvae hatch from the eggs and when full-crown larvae are green, brown, or black and about 1 to 1.5 in. long when full grown. The larva has a dark head capsule usually marked with a pale, but distinct, inverted "Y." Along each side of its body is a longitudinal, black stripe, and along the middle of its back is a wider, yellowish-gray stripe with four black dots on each segment. The larvae have five stages or instars and usually hide in debris on the soil surface in the middle of the day. When full grown, larvae will enter the soil and form the pupal stage. Adult moths emerge from pupae. Moths mate and lay eggs, thus starting the life cycle over again. Lush plant growth is preferred by the adults for egg laying.

Several generations (A generation is the development from egg to adult stage.) occur each year and typically the life cycle from egg to adult takes 28 days. The life cycle can be extended if cooler temperatures occur and can last up to several months. Armyworms in the spring and summer occur in more distinct groups than later in the season. Fall populations of larvae often blend together several generations and may appear to be continually occurring.

When feeding, larvae strip foliage and then move to the next available food. High populations appear to march side by side to the new food. Thus, the name armyworms has been applied.

Armyworms attack many different kinds of plants. When food is scarce, they will move to plants that are not normally attacked. Thus, armyworms can be found on nearly any plant as they migrate in search of edible foliage. Plants attacked by armyworms include: bermudagrass, grain and forage sorghum, corn, small grains, sweet potato, beans, turnip, clover, tobacco, spinach, cucumber, potatoes, tomatoes, cowpeas, cabbage and bluegrass.

Damage consists of foliage consumption. The small larvae will chew the green layer from the leaves and leave a clearing or "window pane" effect. The first three instars do very little feeding while the last two instars consume 85% of the total foliage consumed.

Armyworms should be controlled when they occur in large numbers or plant damage is becoming excessive. The fall armyworm attacks grain in the fall in the seedling stage; therefore, a relatively small number of larvae per square foot can do heavy damage. Preventive treatments normally are not justified because attacks are sporadic and egg mortality is usually high. During favorable seasons, a number of parasitic enemies keep fall armyworm larvae down to moderate numbers. Early detection works best and is achieved by frequent, thorough inspection of plants. Outbreaks seem to occur shortly after a rain or supplemental irrigation. Fall armyworms feed any time of the day or night, but are most active early in the morning or late in the evening. Susceptible fields or lawns should be scouted by counting the number of armyworms in a square foot area in 8 different sites. Divide the total worm count by 8 to find the average number of armyworms per square foot. Be sure to take samples in the interior of the field because this pest is often heaviest near the field margins. Sometimes, only the field margins require treatment.

The threshold level ranges from two to three larvae per square foot for seedling wheat. For older plants, three to four larvae and obvious foliage loss justify control measures. Thresholds in improved pastures and lawns vary with conditions but treatment should be considered when counts average three or more small worms per square foot.

Insecticide choices have changed. Here is what we recommend for pastures and hay fields for 2016.

## **Insecticides Labeled for Armyworm Control in Pastures and Hayfields.**

Always read and follow all label instructions on pesticide use and restrictions. Information below is provided for educational purposes only. Read current label before use.

**Karate Z.** 13.1% lambda cyhalothrin. Fall armyworm and grasshoppers. Pasture and rangeland grass, grass grown for hay and silage and grass grown for seed. Pasture and rangeland grass may be used for used for grazing or cut for forage 0 days after application. Do not cut grass to be dried and harvested for hay until 7 days after the last application. **Restricted use insecticide.**

**Lambda-Cy.** 11.4% lambda cyhalothrin. Fall armyworm and grasshoppers. Pasture and rangeland grass, grass grown for hay and silage and grass grown for seed. Pasture and rangeland grass may be used for used for grazing or cut for forage 0 days after application. Do not cut grass to be dried and harvested for hay until 7 days after the last application. **Restricted use insecticide.**

**Mustang Max.** 9.6% zeta-cypermethrin. Fall armyworm and grasshoppers. Applications may be made up to 0 days for forage and hay, 7 days for straw and seed screenings. **Restricted use insecticide.**

**Tombstone Helios.** 25% cyfluthrin. Fall armyworm and grasshoppers. Pasture, rangeland, grass grown for hay and seed. Zero days to grazing or harvesting hay. **Restricted use insecticide.**

**Warrior II.** 22.8% lambda cyhalothrin. Fall armyworm and grasshoppers. Pasture and rangeland grass, grass grown for hay and silage and grass grown for seed. Pasture and rangeland grass may be used for used for grazing or cut for forage 0 days after application. Do not cut grass to be dried and harvested for hay until 7 days after the last application. **Restricted use insecticide.**

**Baythroid XL.** 12.07% cyfluthrin. Fall armyworm and grasshoppers. Pasture, rangeland, grass grown for hay and seed. Zero days to grazing or harvesting hay. **Restricted use insecticide.**

**Dimilin 2L.** 22% diflubenzuron. Fall armyworm and immature grasshoppers. Dimilin must be applied before armyworm larvae reach ½ inch or larger. Provides residual control for up to 2-3 weeks, as long as forage is not removed from the field. Label does not list a restriction on grazing.

**Prevathon.** 5% chlorantraniliprole. Fall armyworm and grasshoppers. Prevathon has a 0 day waiting period for harvest or grazing and is not a restricted use insecticide.

**Besiege.** 9.26% chlorantraniliprole and 4.63% lambda cyhalothrin. Fall armyworm and grasshoppers. Pasture and rangeland grass may be used for grazing or cut for forage 0

days after application. Do not cut grass to be dried and harvested for hay until 7 days after the last application. **Restricted use insecticide.**

**Sevin 4F, Sevin XLR, Sevin 80S, Generic Carbaryl.** Fall armyworm and grasshoppers. When applied to pastures, there is a 14 day waiting period before grazing or harvesting.

**Malathion 57% and Malathion ULV.** Fall armyworm and grasshoppers. Zero days to harvest or grazing.

**Intrepid 2F.** Fall armyworm (not grasshoppers). Begin applications when first signs of armyworm feedings appear. Use higher rates for heavier infestations. Do not harvest hay within 7 days of application. No pre-harvest interval for forage. 0 days to grazing.

**Tracer.** Treat when armyworm eggs hatch or when larvae are small. Use higher rates for larger larvae. Do not graze until spray is dry. Do not harvest hay or fodder for 3 days after treatment. Do not allow cattle to graze until spray has dried.

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**A \*.jpg picture of an armyworm is attached for your use.**

# Fall Armyworm Identification



Eighth abdominal segment with four dark spots

Broad, pale band along top of body, contrasted by dark striping at the sides

Head with dark net-like pattern and upside-down, white "Y" marking

