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To: Rains County Leader

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### **Be On the Lookout for Armyworms**

Whether you are a homeowner or if you are in the forage business to feed beef or dairy cattle, horses, sheep or goats, then you need to be on the watch for armyworms. With the recent rain, producers need to be diligent in watching their pastures and fields. I have been getting a tremendous amount of calls throughout the county on armyworms wiping out hay meadows.

The armyworm has four life stages: egg, larva, pupa and adult. The armyworm has not shown the ability to diapause so its ability to survive winter depends on the severity of the temperature. The armyworm does overwinter in the southern regions of Texas in the pupa 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.

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." 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 pupa 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. 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 have 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: Bermuda grass, grain and forage sorghum, corn, small grains, sweet potato, beans, turnip, clover, spinach, cucumber, potatoes, tomatoes, and many more.

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. 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. 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 young tender growth. 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.

### **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 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 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 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. .

Be sure and follow label directions when using any pesticide. The label is the law when dealing with any pesticide. If you have any question, please contact the Rains County Extension Office located at 410 Tawakoni Drive or call 903-473-4580.

