

Fall Armyworms in Hay Fields and Pastures

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Fall armyworm populations were unusually heavy last year with treatable populations reaching North Mississippi relatively early in the year and extending into Tennessee. It appears that this may be another heavy year as some pastures and hay fields in the southern part of the state began to require treatment in early June. Fall armyworms can cause heavy forage losses, especially in highly managed bermudagrass hay fields and growers will need to check hay fields and pastures regularly for this pest for the remainder of the season. It is also a good idea to go ahead and get sprayers ready: cleaned, repaired, and calibrated. Failure to detect and treat a developing fall armyworm infestation in a timely manner can result in the loss of a cutting of hay or loss of valuable grazing. Protecting forage from fall armyworms can require a lot of spraying, with some producers making six or more treatments during heavy fall armyworm years.

Scout for fall armyworms by vigorously shaking the grass then carefully counting the larvae that have fallen to the ground in a one square foot area. Do this at several locations in the field and average your results. **Treatment is recommended when counts reach 5 to 7 larvae per square foot.** Be sure to look carefully for small caterpillars. You want to detect and treat them when they are small because small caterpillars are easier to control, and, more importantly, have not eaten nearly as much as they are going to eat. Like all caterpillars, fall armyworms do 90% of their eating during their last 2 to 3 days as a larva. This means that if a field has reached threshold on Friday, but is not scheduled to be cut until the middle of next week, it still needs to be treated. A moderate to heavy population of fall armyworms can eat a whole field of grass in just a couple of days. Be sure to pay attention to pre-harvest intervals when choosing an insecticide to use on a field that is near cutting!

Many producers watch for birds feeding in a field as an indicator of fall armyworm problems. If you see birds, by all means check out what they are feeding on, but do not use this as your only way to check for armyworms. This sign often comes too late to avoid damage! Experienced forage producers learn to recognize the early signs of fall armyworm feeding. Newly hatched caterpillars are too small to feed all the way through a leaf blade. They begin by feeding on the underside of the leaf, but leaving the clear upper epidermis intact. This creates tiny “windowpanes” in the grass blades that appear silver or white in color. When large numbers of small larvae are just beginning to damage a field the grass often has a subtle “frosted” appearance because of these windowpanes. This phenomenon is easier to see on the wide leaf blades of barnyard grass, which is a favorite food of fall armyworms. Learning what this looks like on barnyard grass can help you recognize it on bermuda. Learning to watch for this early sign of infestation can help save a cutting of hay.

Over the past few years there have been significant improvements in the treatment options available for control of fall armyworms in pastures and hay fields. Some older products, like methyl parathion, are no longer available (all uses of methyl parathion were recently canceled). Some traditional fall armyworm products, like Sevin and Malathion, are still available, but there are also several new products that are cheaper, more effective, provide longer residual control, or have more favorable pre-harvest intervals. These include the insect growth regulators Intrepid and Dimilin, as well as Tracer, and several pyrethroid insecticides.

The following table lists the current treatment options for fall armyworms in hay fields and pastures. When selecting insecticides pay close attention to the pre-harvest interval, and note that pre-harvest intervals can vary depending on whether the grass will be grazed or cut for hay (note that “days to harvest” means days till cutting, not bailing). You may also want to consider the number of acres one gallon of product will cover and the size of field you need to spray.

It is also well worthwhile to compare costs on a per acre basis. When comparing costs keep in mind that some products provide longer residual control than others, and during years of heavy fall armyworm pressure, this can make the difference between having to spray once or twice vs two or three times to make a cutting of hay. In general, the growth regulator products (Intrepid and Dimilin) provide longer control than the pyrethroids (Mustang Max, Baythroid, and Karate Z), but growth regulators are slower-acting and are best used when caterpillars are small.

Treatments for Control of Fall Armyworms in Hay Fields and Pastures *

Insecticide/formulation	Rate of formulated Product per acre	No. of Acres 1 gallon of product will treat	Pre-Grazing Interval	Pre-Harvest Interval (wait to cut hay)
Intrepid 2F	4 to 8 fl. Oz.	32 to 16	0 days	7 days
Dimilin 2L	2 fl. Oz.	64	0 days	1day
Tracer 4SC	1 to 2 fl. Oz.	128 to 64	Till spray dries	3 days
Mustang Max 0.8 EC	2.8 to 4.0 fl. Oz.	45 to 32	0 days	0
Baythroid XL, 1 lb/gal.	1.6 to 1.9 fl. Oz.	80 to 67	0 days	0
Karate Z, 2.08 lb/gal.	1.28 to 1.92 fl. Oz	100 to 67	0 days	7 days
Sevin 80 S	1.25 to 1.88 lbs	--	14 days	14 days
Sevin XLR 4F	1 to 1.5 quarts	4 to 2.6	14 days	14 days
Malathion 57 EC	1 quart	4	Till spray dries	0 days

*** This information is for preliminary planning purposes only. Be sure to carefully read the label of any product you plan to use and follow all label restrictions carefully.**