

# HatchTrak<sup>SM</sup>



## Alfalfa Weevil

The alfalfa weevil spends the winter as an adult in the crowns of the alfalfa plant or under leaves or other debris. Adult weevils are small, 1/4-inch, brownish-grey snout beetles, with a darker brown band down the back.



Alfalfa Weevil Adult



Alfalfa Weevil Larvae

Alfalfa weevil adults emerge in the spring after average temperatures reach 60 degrees F. They start chewing holes in young alfalfa leaves as soon as crop growth begins but do not lay eggs until early April. In most areas, alfalfa weevil will only produce one generation per year, but if conditions are good they may also lay eggs in the fall, potentially producing two separate cycles of egg laying and larvae.

Egg hatch occurs in one to two weeks. The newly-hatched, yellowish-green larvae (immature weevil or "worm") feed within the stem for a few days before moving to the opening leaf buds at the tips of the stems. Later, they feed on the leaves, producing a characteristic ragged or skeletonized appearance. At maturity, the larvae are dark green, 3/8-inch long, with a black head and a white stripe down the back.

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# FMC

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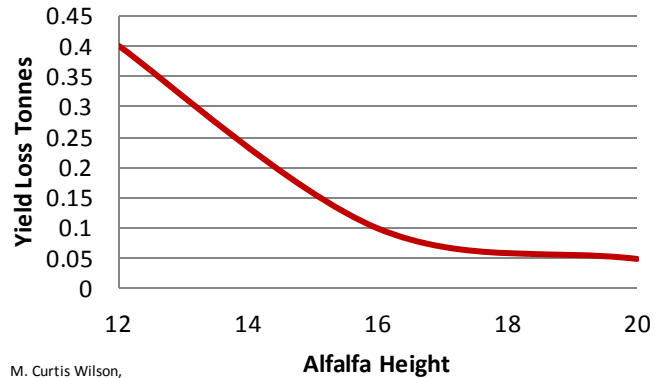
## Mustang<sup>®</sup> Maxx Insecticide

**Rate:** 4.0 oz./acre  
**REI:** 12 hrs  
**Retreat Interval:** 7 days  
**PHI:** 3 days (forage)  
**Season Max Use:** 24 oz./acre  
**Application:** Ground, air or chemigation

## Stallion<sup>®</sup> Brand Insecticide

**Rate:** 11.75 oz./acre  
**REI:** 24 hrs  
**Retreat Interval:** 10 days  
**PHI:** 7 days (forage)  
**Season Max Use:** 35.25 oz./acre  
**Application:** Ground, air or chemigation

## Alfalfa Loss Due to One Alfalfa Weevil per Stem



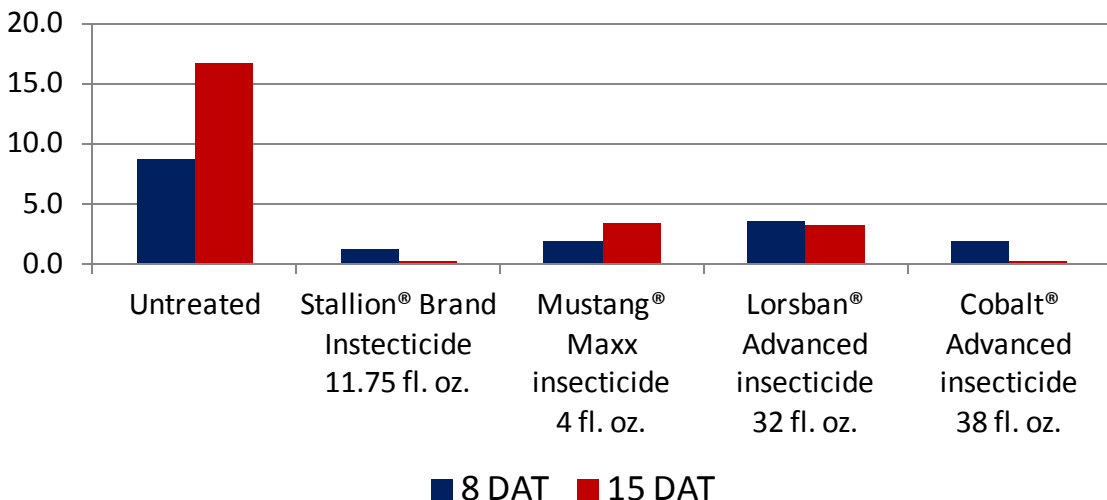
M. Curtis Wilson,  
Purdue University

Trials have shown that forage yields in the first crop of alfalfa are decreased about 170 lbs./acre for each addition of one larva/stem in a weevil population on alfalfa up to 12 inches to 15 inches tall. Because of reduced plant growth and lower stem densities, yield/losses of second harvest alfalfa may approximate 140 lbs./acre for each addition of one larva/stem. (Oklahoma State University)

In recent studies on alfalfa yields under separate and combined effects of weevils, cutworms, and weed encroachment, researchers have shown that controlling alfalfa weevils allows plants to more effectively compete with weed species. Combined effects of alfalfa weevils and weed control have the greatest positive effect on forage yields and stand retention.

## Egyptian Alfalfa Weevils per Sweep

University of California Davis - Godfrey 2013



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Alfalfa Weevil Damage

## Cutworm Life Cycle

- Cutworms have a minimum developmental threshold of 50°F and degree-day accumulation can be used to predict larval damage. Feeding activity tends to occur after about 300 Fahrenheit degree days, and pupation occurs after about 640 degree days.
- **However, with cooler weather, growth of cutworms will slow and activity may be extended.**
- When convenient, irrigate the field before treating army cutworms. Applications in late evening, when larvae usually feed above ground, are most effective
- When making an insecticide application for army cutworms, growers should be sure that temperatures will be above 50 degrees for three to four days after the application is made.
- Use the following link to determine your local degree day levels.  
[www.weatherdatadepot.com](http://www.weatherdatadepot.com)

Always read and follow label directions. NOTE REGARDING RESTRICTED USE PESTICIDES: Anthem ATZ herbicide; Athena insecticide, Brigade 2EC Insecticide/Miticide, Brigade WSB Insecticide/Miticide, Brigadier Insecticide Capture 3RIVE 3D insecticide, Capture LFR Insecticide, Declare insecticide, Hero Insecticide, Mustang Insecticide, Mustang Maxx Insecticide, Pounce 25WP Insecticide, Stallion Brand Insecticide, Temitry LFR Insecticide/Fungicide, Triple Crown Insecticide, Ethos XB Insecticide/Fungicide and Gladiator Insecticide/Miticide are **Restricted Use Pesticides**. NOTE FOR CALIFORNIA: Accurate Extra herbicide, Aim herbicide, Aim EC herbicide, Aim EW herbicide, Anthem herbicide, Anthem ATZ herbicide, Anthem Flex herbicide, Anthem MAXX herbicide, Authority Assist herbicide, Authority Elite herbicide, Authority First DF herbicide, Authority MAXX herbicide, Authority MTZ DF herbicide, Authority XL herbicide, Cadet herbicide, Chisum Herbicide, Command 3ME microencapsulated herbicide, Crusher Herbicide, Edition Broadspec herbicide, Edition Tankmix Herbicide, Marvel herbicide, Nimble Herbicide, Nuance Herbicide, Preemptor SC fungicide, Report Extra Herbicide, Solstice herbicide, Spartan 4F herbicide, Spartan Charge herbicide, Spartan Elite herbicide, Temitry LFR Insecticide/Fungicide, Topguard EQ fungicide, Zeus Prime XC herbicide, Zeus XC herbicide, Capture 3RIVE 3D insecticide, Ethos XB Insecticide/Fungicide, Hero Insecticide, Mustang Maxx Insecticide, Display cotton harvest aid, Zoro Miticide and VGR Soil Amendment **are not registered for sale or use in California**. VGR Soil Amendment is not a pesticide. Beleaf and Carbine are trademarks of Ishihara Sangyo Kaisha, Ltd. Cercobin is a trademark of Nippon Soda Co., LTD. Sovran is a registered trademark of BASF. FMC, 3RIVE 3D, Accurate, Aim, Anthem, Athena, Authority, Brigade, Brigadier, Cadet, Capture, Chisum, Command, Crusher, Declare, Display, Edition, Ethos, Preemptor, Fracture, Fyfanon, Gladiator, Hero, Koverall, LFR, Marvel, Mustang, Nimble, Obey, Pounce, Report, Rhyme, Rovral, Shark, Solida, Solstice, Spartan, Stallion, Temitry, Topguard, Topguard Terra, VGR and Zeus are trademarks and HatchTrak and Investing in farming's future are service marks of FMC Corporation or an affiliate. ©2017 FMC Corporation. All rights reserved. 3/17

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