

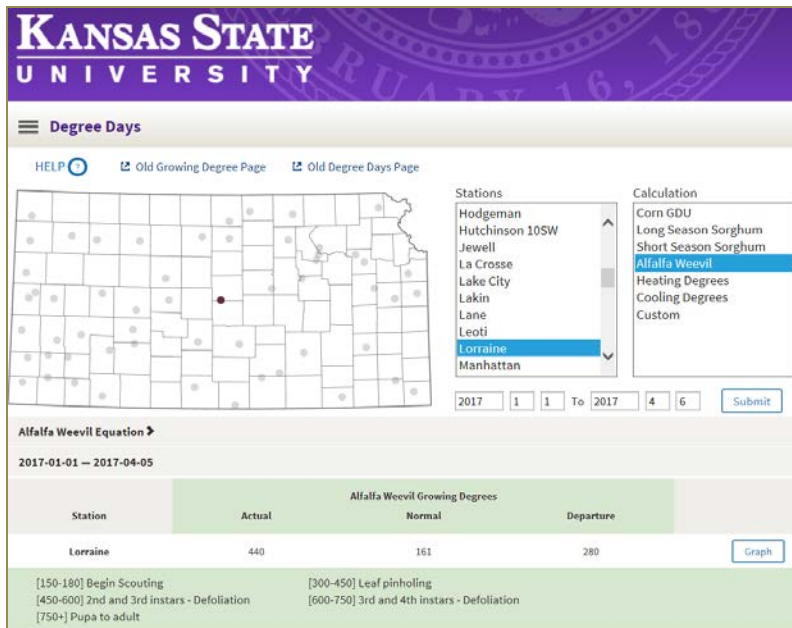


April 10, 2017

Alfalfa Weevil Update

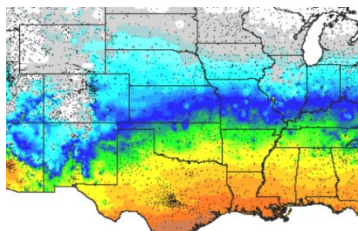
After a warm early spring, Kansas is well ahead of normal from a growing degree day standpoint as can be seen from the alfalfa weevil model at the KSU Extension website:

<http://mesonet.k-state.edu/agriculture/degreedays/>



The KSU alfalfa weevil model uses a base temp of 48 degrees. A windshield view of alfalfa fields in north central Kansas this past week showed more than a few with the tell tale grayish cast typical of heavy weevil feeding. By growing degrees, those fields should have 2nd and 3rd instar larvae right now.

I don't find a similar model for Missouri, but growing degree days accumulated should be similar based on this U.S. map of GGDs YTD 4/6/17 (base 32)



Alfalfa weevils can be controlled with several different insecticides, but in recent years control difficulties have been reported with commonly used products. Both **Mustang[®] Maxx** insecticide and **Stallion[®] Brand** insecticides from FMC will provide very good control, but as later stages of alfalfa weevil infestations can be more difficult, care should be taken in application. Spray volume and coverage become more critical.

Inside This Issue

Alfalfa Weevil Update for Kansas/Missouri

- KSU alfalfa weevil GDD model
- Control tips
- Mustang[®] Maxx insecticide
- Stallion[®] Brand Insecticide
- Declare[®] Insecticide

Technical Support Manager:

Tom Quade – MO/KS
816 225 0875

Contact your local FMC Representative for more information:

Mike Harper has been promoted, please call Tom Quade another FMC Rep with questions

Tom Becker –NW MO/NE KS
816 550 6021

Steve Freach South KS & OK
316 619 7486

Gary Vaupel – central/NW KS
785 826 0098

Doug Mertens – E. Central MO
573 489 5261

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319 330 9043

FMC



Treating Heavy Alfalfa Weevil / Extended Weevil Infestations in Alfalfa

When alfalfa weevils begin feeding early on small alfalfa (2-4"), it may take 2 or more insecticide sprays to protect the crop through first cutting. The small alfalfa lacks sufficient foliage to retain insecticide and give long residual and weevils continue to feed on new untreated foliage. As alfalfa gets larger than 6-8", residual control with pyrethroids is much better.

In April, alfalfa fields may have weevils of various growth stages, including late-stage larvae. Control is best with full rates and spray volume becomes very important. **Mustang[®] Maxx** insecticide and **Stallion[®] Brand** Insecticides recommend a minimum of 10 GPA by ground and 2 GPA by air. Increasing the carrier volume can improve control.

University research shows that most insecticide brands continue to provide good control of alfalfa weevils, but where growers feel they have had unsatisfactory control in the past, some points to consider in addition to enhanced spray volume and coverage, would be using a premixed product with two modes of action such as **Stallion Brand** Insecticide (Group 3A plus Group 1B MOA), or consider tank mixing two currently registered brands at alfalfa weevil control rates listed on the label, such as **Mustang Maxx** insecticide + **Steward[®]** insecticides (Groups 3A plus Group 22). Use at least the minimum rate for alfalfa weevils listed on the labels: (4 oz. **Mustang Maxx** insecticide and 6.7 oz. **Steward** insecticides). Mixing or alternating alternative modes of action is a key strategy for resistance management.



HatchTrakSM



ALFALFA INSECT CONTROL

KEY INSECTS – WEEVILS, CUTWORMS, LEAFHOPPERS, APHIDS AND OTHERS WITH SHORT PHI / REI



Application Recommendations

2.24 – 4.0 oz.

Alfalfa caterpillars, alfalfa loopers, cutworms, flea beetles, garden webworms, green cloverworms, hornworms, meadow spittlebugs, potato leafhoppers, velvetbean caterpillars, webworms, blue alfalfa aphids, green peach aphids, pea aphids, spotted alfalfa aphids, three cornered alfalfa hoppers

4.0 oz.

Alfalfa weevils, Egyptian alfalfa weevils (larvae and adult), cloverleaf weevils, armyworms, grasshoppers, plant bugs

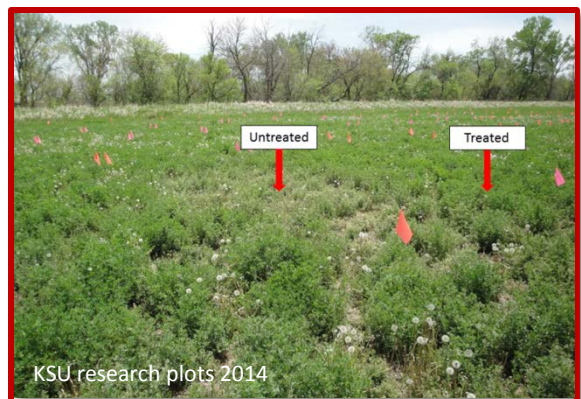
Special Information:

- Do not make applications less than seven days apart.
- Use a minimum of 2 gallons of finished spray per acre by air or 10 gallons of finished spray per acre by ground. **Use higher spray volume for alfalfa weevil control.**
- Do not apply more than 8 oz./A per cutting, 24 oz./A per season.
- Applications may be made up to three days of cutting or grazing or up to seven days of harvesting seed.
- REI: 12 hrs.

MUSTANG[®]
MAXX
INSECTICIDE

Alfalfa Insect Management

- Anything that can eliminate plant stress results in greater energy storage and less energy used for plant maintenance and structural building.
- Insect thresholds look mainly at economic loss based solely on physical yields.
 - Data indicates that forage quality is affected well before physical yield loss occurs.
 - Treat early on small alfalfa to gain maximum benefit during cutting growth window.
- Treating leafhoppers and other insect complexes has shown yield gains and significant forage quality improvements.
- Treatment costs are much less than net benefit of treating alfalfa insects.
 - Possible yield increase, protein and RFV improvement, healthier stands, longer stand life, increased dollars per acre return over the life of alfalfa stand.



GROUP 3A INSECTICIDE

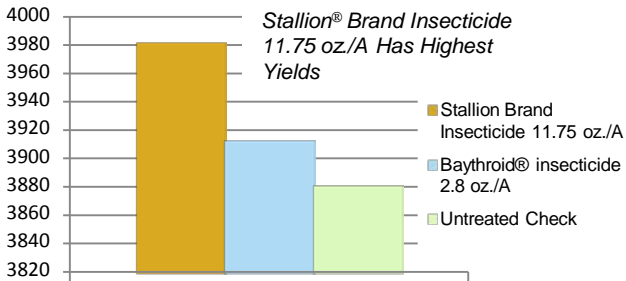
HatchTrakSM



ALFALFA INSECT CONTROL – WEEVILS, APHIDS & Others

TWO EFFECTIVE MODES OF ACTION AT THE
RIGHT RATIO FOR MAXIMUM INSECT CONTROL

2010 Alfalfa Insecticide Trial - Yield Lbs./A Oklahoma State University – Chickasha, OK



STALLION BRAND

Application Recommendations

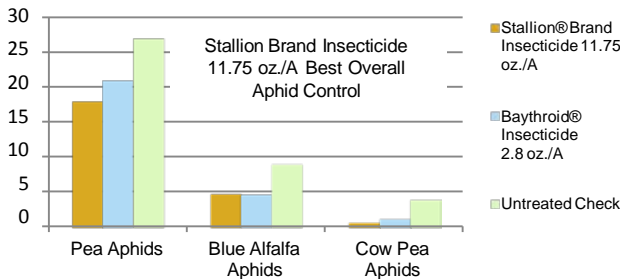
11.75 oz./A – Cutworms, alfalfa caterpillars, alfalfa loopers, cloverleaf weevils, flea beetles, green cloverworms, hornworms, potato leafhoppers, three-cornered alfalfa hoppers, velvetbean caterpillars, webworms, alfalfa weevils, armyworms (fall, Southern, true, yellowstriped), blue alfalfa aphids, cereal leaf beetles, chinch bugs, Egyptian alfalfa weevils, grass mealybugs, grasshoppers, green peach aphids, meadow spittlebugs, pea aphids, spotted alfalfa aphids, stink bugs, hunting billbugs, plant bugs

Special Information:

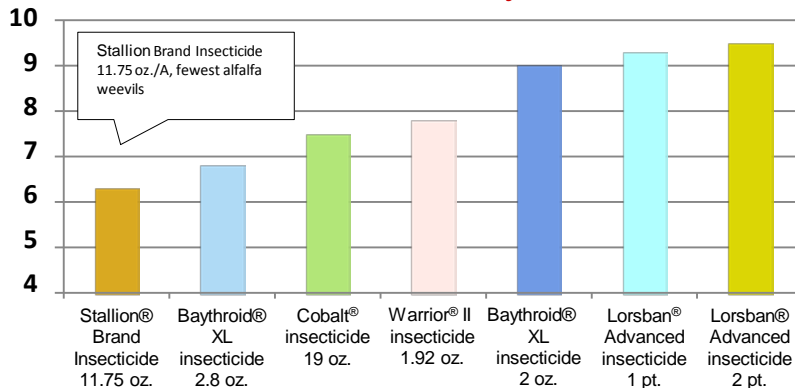
- Do not make applications less than 10 days apart.
- Use a minimum of 2 gallons of finished spray per acre by air or 10 gallons of finished spray per acre by ground.
- Do not apply more than 11.75 oz./A per cutting.
- Applications may be made up to seven days of cutting or grazing or harvesting seed.
- Multiple crop use.
- 24 hour REI.
- Two modes of action.



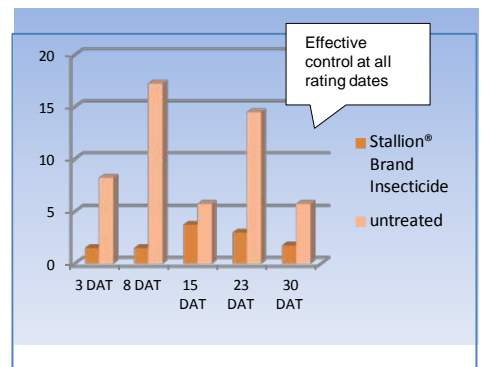
2010 Alfalfa Insecticide Trial - Aphids/25 Stems 21 DAT Oklahoma State University – Chickasha, OK



2010 Alfalfa Weevil Insecticide Efficacy Trial – Kansas State U. Number Alfalfa Weevil Larvae/10 Stems 12 Days After Treatment



2015 Alfalfa Weevil Insecticide Efficacy – Kansas State U. Number Alfalfa Weevil Larvae/10 Stems



GROUP	3A	1B	INSECTICIDE
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DECLARE[®]
INSECTICIDE

GROUP 3A INSECTICIDE

ALFALFA INSECT CONTROL

LOW USE RATE, RESOLVED ISOMER, PYRETHROID INSECTICIDE
KEY INSECTS – WEEVILS, CUTWORMS, LEAFHOPPERS, APHIDS AND OTHERS.

Declare[®] Insecticide is a low use rate, economical pyrethroid insecticide (gamma-cyhalothrin). It will provide excellent control of a wide range of insects at very low rates.

Key pests controlled:

0.77 – 1.28 oz.

Alfalfa caterpillars, cutworms spp., green cloverworms, leafhoppers spp., loopers spp., three cornered alfalfa hoppers, velvetbean caterpillars, webworms spp.

1.02 – 1.54 oz.

Alfalfa seed chalcids (adult), alfalfa weevils, armyworms, bean leaf beetles (adult), blister beetles spp., blue alfalfa aphids, clover leaf weevils spp., clover root borers (adult), clover root curculio spp. (adult), clover stem borers (adult), corn earworms, cowpea aphids, cowpea curculios (adult) cowpea weevils (adult), cucumber beetles spp. (adult), Egyptian alfalfa weevils, grape colaspis (adult), grasshoppers spp., green June beetles (adult), green peach aphids, Japanese beetles (adult), meadow spittlebugs, Mexican bean beetles, pea aphids, pea weevils (adult), plant bugs spp., including lygus spp., spotted alfalfa aphids, stink bugs spp., sweet clover weevils (adult), thrips spp. (does not include Western flower thrips), Western yellowstriped armyworms, white fringed beetle spp. (adult), yellowstriped armyworms.

- Use a minimum of 2 gallons of finished spray per acre by air or 10 gallons of finished spray per acre by ground. When foliage is dense and/or pest populations are high, 5-10 gal./A by air or 20 gal./A by ground and higher label rates are recommended.
- Use higher spray volumes for alfalfa weevil control.
- Do not apply more than 0.015 lb. active ingredient (1.53 oz.) per acre per cutting.
- Do not apply more than 0.06 lb. active ingredient (6.08 oz.) per acre per season. See label for additional state allowed directions in Colorado and Kansas for control of alfalfa weevil.
- Do not apply within one day of harvest for forage or within seven days of harvest for hay.

888-59-FMC-AG FMCCROP.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, Temetry 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, Temetry 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, Temetry, 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. ©2016 FMC Corporation. All rights reserved. 11/16

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HT-CCB-Alfalfa-TWQ 04-12-17