Alfalfa Weevil Management

Alfalfa weevils lay eggs in fall, winter and spring. Larvae grow through four stages (instars). After egg hatch, early instar larvae move up alfalfa stems to feed inside the plant terminal. Third and fourth instar stages feed on foliage outside terminal, with a large amount of foliage possibly consumed leaving a skeletonized stem.

After 200 degree days (base-48) have accumulated, begin scouting. This typically is late March to early April. Scouting with a sweep net will help identify presence of larvae, however, the most effective technique is to collect ten alfalfa stems in five locations in the field and tap them into a white bucket. Handle stems carefully when clipping so larvae do not fall to the ground. The economic threshold is an average of one or more larvae per stem and 30% terminal feeding damage.

Early harvest is an option for management, however it is best for the crop to not harvest earlier than 10 days prior to normal growth stage of 1/10th bloom. Harvest could be done by cutting for hay or grazing. University of Missouri research found that 98% of weevils can be reduced with mechanical harvest and a 90% reduction by grazing. If grazing, be cautious of bloat and damage to the alfalfa crowns from trampling during wet conditions.

If insecticide treatment is warranted there are numerous registered products in Missouri. For good coverage, it is best to use 20 gallons per acre for ground spray rigs. Be sure to read all label restrictions and preharvest intervals. There have been reported control failures with standard treatments of chlorpyrifos products and pyrethroid products that have been attributed to cool weather. Indoxacarb (Steward) has had good activity where the standard pyrethroid and chlorpyrifos products failed.

For more information contact University of Missouri Extension. You can find more information on the University of Missouri Extension website: http://extension.missouri.edu/capegirardeau/agriculture.aspx

Anthony Ohmes, Agronomy Specialist, University of Missouri Extension, Jackson, MO.
Importance of Neonicotinoids as Seed Treatments

The majority of rice producers now use one of three available insecticidal seed treatments - chlorantraniliprole (Dermacor X-100), thiamethoxam (CruiserMaxx), and clothianidin (NipsitINSIDE) - to help manage their insect pests. These products offer control of an array of rice insect pests, including rice water weevil, grape colaspis, chinch bug, aphids and leafhoppers. Seed treatment insecticides offer many advantages, including ease of use and superior effectiveness against the rice water weevil, the primary target pest.

Diseases reduce yield and quality and increase production cost. Although disease pressure has been relatively low in MO the past few years we did have a couple hot spots of Blast on CL 151 last year. Decreasing inputs and adapting new high yielding varieties may make us more vulnerable, so IPM and consultants are a good investment. High yielding conventional varieties need to be scouted closely for early insect and disease detection, then quick foliar applications can be made in a preventive manner. Hybrid varieties generally have a better disease package but don’t ignore them.

In 2016 we need to pay attention to Sheath Blight and Blast especially if we are forced into late planting. Hot weather and lack of water induces Blast. This will be a compounding problem for farmers that intend to plant more row rice or furrow irrigated rice. Along with Blast, we recommend to scout weekly for Sheath Blight, Straighthead, Bacterial Panicle Blight, Narrow Brown Spot, Leaf Spot, Stem Rot, Black Sheath Rot, Kernel and False Smut. Descriptions of all rice diseases and their control can be found in the UAR Rice Production Handbook and MP 154 Arkansas Plant Disease Control Products Guide. The MO rice growers and I want to thank UAR and other universities for sharing their rice information and recommendations.

With the economic crunch facing rice farmers due to low rice prices, we are getting calls on what inputs can be cut? Quick answer is none, if you have done your office work with an itemized solid plan and a reason for the specific input. It’s obvious you budget the basics: seed, fertilizer, water, weeds, diseases and insects. In other words, it’s probably unwise to cut any input that has a high probability of significantly reducing yield. It’s the small differences of each of these basics that farmers have to choose from that sets him up for a profit. Example, research has shown that a seed treatment with the proper insecticide and fungicide treatment on rice seed is a good bet of return on your money. Below in UAR Table 1 are the products needed to control specific insects and diseases on rice with a seed treatment.

Table 1 shows what is contained in each of the products you may be asked to consider treating your seed with. If planting hybrid, some treatments are already on the seed so you only need to add an insecticide (unless you bought some pre-treated with insecticide included).

Sam Atwell, Agronomy Specialist, University of Missouri Extension, New Madrid, MO

Table 1. Seed treatment products for rice and description of use.

<table>
<thead>
<tr>
<th>Product</th>
<th>Insecticide</th>
<th>Fungicide</th>
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<tbody>
<tr>
<td>CruiserMaxx Rice</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Nipsit INSIDE</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Nipsit Rice Suite</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Dermacor X-100</td>
<td>X</td>
<td></td>
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<tr>
<td>RTU-Vitavax-Thiram</td>
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<td>X</td>
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<tr>
<td>Vitavax 200</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Allegiance FL</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Apron XL LS</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Maxim 4 FS</td>
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<td>X</td>
</tr>
<tr>
<td>Dynasty</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Trilex 2000</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Evergold Energy</td>
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</table>
Special Local Needs Registration for Watermelon

The Missouri Department of Agriculture has reviewed and accepted a Special Local Need Registration for Dual Magnum® Herbicide, EPA Reg. No.100-816, for weed control in cantaloupe and watermelon. The Special Local Need Registration number assigned to this registration is MO-160001. The expiration date on the Dual Magnum® Herbicide Special Local Need label is December, 31, 2021.

Dual Magnum can be applied broadcast prior to mulch and transplanting of cantaloupe or watermelon. It may also be applied to bare ground before transplanting. Dual Magnum will not control emerged weeds; thus, other control tactics that provide weed control prior to Dual Magnum being activated are required. All cantaloupe and watermelon cultivars have not been studied for tolerance. Experiment on a limited basis until on farm confidence in these use patterns and rates are obtained. If an activating rainfall (0.5”) does not occur within 7-10 days following application, weed control may be reduced. Irrigation water can be applied following the treatment of Dual Magnum to activate the herbicide and improve weed control.

To request a copy of the label send an email to melissa.may@mda.mo.gov, Certification Program Coordinator with the Missouri Department of Agriculture.
**Crop Update**

**Wheat**

Cold temps hit the southeast region this weekend. Jointing (Feekes 6) wheat will incur moderate to severe damage if temperatures fall to 24 degrees Fahrenheit or lower for two hours or longer. As wheat moves to Feekes 10 (boot), temperatures dropping below 30 degrees F can cause damage, especially if temperatures remain at 28 degrees for any period of time.

Wheat development is anywhere from Feekes 5 (pre-jointing) to Feekes 6 (jointing). Jointing is when the growing point is above the ground as the first detectable node. Wheat maturity is driven primarily by variety response to temperature and photoperiod and not specific dates on the calendar. A good guide for following wheat development is Purdue University’s guide: “Managing Wheat by Growth Stage” at [https://www.extension.purdue.edu/extmedia/ID/ID-422.pdf](https://www.extension.purdue.edu/extmedia/ID/ID-422.pdf).

Jointing is the cutoff for many wheat herbicides, such as synthetic auxins, metribuzin, pyroxsulam (PowerFlex) and mesosulfuron (Osprey), so always be sure to read and follow herbicide label directions and visually inspect your field before making an application. Wheat grown as both pasture and cereal grain, to protect yield, pull cattle off just prior to jointing when the base of the stem is hollow.

Wheat rust has been found in Arkansas. Continue to monitor crop for signs of disease, such as stripe and leaf rust. University of Missouri’s “Pest Management Guide M171” has a listing of fungicides labeled for wheat: [http://extension.missouri.edu/p/M171](http://extension.missouri.edu/p/M171).

For more information on wheat management, including wheat diseases, during stem elongation through heading contact your local MU Extension office and ask for IPM 1022 “Management of Soft Winter Wheat” or find it on the web at [http://extension.missouri.edu/p/ipm1022](http://extension.missouri.edu/p/ipm1022).

**Pasture Weeds**

It is still a good time to scout pastures spring weeds, such as thistles and buttercup, while still in the rosette or vegetative stage. Applying herbicides to small actively growing weeds is critical to achieve maximum control and prevent seed production.

Products containing 2,4-D, dicamba, triclopyr, picloram, aminopyralid, or pre-mixed products containing two or more of these products provide good to excellent control of broadleaf weeds in pasture. Use caution: these products are safe at labeled rates on grass species but can kill or severely injure desirable broadleaves in grass-legume pasture mixes. In some cases spot treatment of areas may provide adequate control. Always read label for proper rates, target weeds, and grazing or hay harvest restrictions.

For more information contact a University of Missouri Extension center and ask for IPM 1031: “Weed and Brush Control for Forages, Pastures, and Noncropland.” You can also find it on the web at: [http://extension.missouri.edu/p/ipm1031](http://extension.missouri.edu/p/ipm1031).

Anthony Ohmes, Agronomy Specialist, University of Missouri Extension, Jackson, MO.
The USDA **Value-Added Producer Grant** (VAPG) Program expects to announce a call for applications in March! With the March 10 webinar on the VAPG (previously circulated) that includes USDA VAPG staff, it will likely be released by then.

This is a great opportunity to plan a value-added business or to help fund early stage working capital expenses. Grants of up to $75,000 for business planning and up to $250,000 for working capital will be available.

**“Value-added” is defined quite generously by the USDA.** Not only can it mean changing the physical state of your raw product, but it can mean the fact that you are marketing and branding your raw product as local, or by your means of production, such as organically grown, or by the physical segregation of your raw product, such as non-GMO corn. Projects producing renewable energy from one’s own bio-based products can also be considered value-added. There are five ways to add value in the VAPG.

**This year may be one of the best years to apply.** The VAPG is considering providing a large pot of funds this year, which would mean much less funding available in 2017 and 2018. We will not know the exact amount until it is announced.

Military veterans, beginning farmers, minority farmers, or women-owned farming businesses can get extra points in the scoring of applications, as do some farmer groups that benefit these types of farmers.

There is a **50% matching funds** requirement. So please, **investigate this program now** at [http://www.rd.usda.gov/programs-services/value-added-producer-grants](http://www.rd.usda.gov/programs-services/value-added-producer-grants) to find out if it can help you achieve your business goals. Start on your application **before** the federal announcement. Use last year’s “application toolkit.”

Another great resource to use in considering this program is The Farmer’s Guide to Applying for the Value-Added Producer Grant program available at: [www.sustainableagriculture.net/publications](http://www.sustainableagriculture.net/publications)
Small acreages offer a variety of ways to generate income, ranging from raising fruits, vegetables, meat and poultry to enhancing your property for outdoor recreation or agritourism.

A University of Missouri Extension conference, April 2 in St. Joseph, will explore opportunities to put small acreages to work.

The third annual Small Acreage and Land Entrepreneurs (SALE) Conference gives small-acreage owners the opportunity to learn and network on a variety of topics, and to visit with area businesses and agencies of interest to this group, said Randa Doty, University of Missouri Extension Agricultural Business Specialist and one of the conference organizers.

The SALE Conference will feature a variety of sessions in four concurrent tracks. Sessions are scheduled to last 30 minutes, followed by 10 minutes for questions, and are timed to allow attendees to move from track to track. “We have several sessions focusing on youth, a couple urban agriculture sessions and some entrepreneurship topics,” Doty said. “That’s in addition to vegetable, fruit, livestock and other production topics.”

Other topics include ag leases, getting off the grid, agroforestry, permaculture and displays at farmers markets. Presenters include MU Extension specialists, private landowners and representatives from the Missouri Department of Conservation and the U.S. Department of Agriculture.

The conference runs 9:00 a.m. to 3:30 p.m. in Spratt Hall on the Missouri Western State University campus, St. Joseph. For map and directions, go to https://www.missouriwstern.edu/about/directions. A trade show starts at 8:30 a.m. and will run throughout the day. The early-bird registration deadline is March 26. You can download a printable agenda and mail-in registration form at http://extension.missouri.edu/nodaway/saleconference.aspx.

For more information, contact Randa Doty at 660-582-8101 or dotyr@missouri.edu, or Tom Fowler at 816-279-1691 or fowlert@missouri.edu.

**St. Joseph Conference looks at opportunities with small acreage**

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>Where:</td>
<td>Blum Student Union, 2nd floor</td>
</tr>
<tr>
<td></td>
<td>Missouri Western State University</td>
</tr>
<tr>
<td></td>
<td>St. Joseph, MO</td>
</tr>
</tbody>
</table>

Livestock “To Do” List

It is time to think about grass tetany, fly control, spring breeding and pregnancy exams on the fall herd.

**Grass Tetany** usually affects older lactating cows grazing lush regrowth in pastures. The magnesium level in cool season forages can be deficient leading to this problem. Spring fertilizer application (potash) and cloudy conditions can also increase the potential for grass tetany to occur. Providing a high-Mag mineral, 10-15% magnesium oxide, can aid in prevention.

**Fly Control**
There are several different options for horn fly control each having positives and negatives. Control options include dust bags, back rubbers, ear tags, sprays, pour-ons, boluses and feed additives. Insect resistance can develop in any of these control methods, but ear tag resistance occurs more frequently. You may have a resistance problem if horn flies are not controlled a few weeks after applying tags or if horn flies are infesting cattle by mid-summer. Resistance can occur if you use ear tags containing an insecticide of the same chemical class for 2-3 years. Rotate ear tags or control method on an annual basis.

**Spring Breeding**
It is time to book spring breeding A.I., start making bull selections, get a breeding soundness exam on your clean-up bull, have heifers tract scored and pelvic measured, and give pre-breeding vaccines to your breeding herd. Supplement grain to cows that have calves if feeding low quality hay.

**Preg checks**
Have the vet confirm pregnancy status and market open females or get them ready to breed with the spring herd. Track moving cows from season to season, because if she is not producing a calf per calendar year, she is not making you money.

Erin Larimore, Livestock Specialist, University of Missouri Extension, Jackson, MO

**Cover Crop Management**

If you have questions about cover crop termination, there are a couple of links to consider reviewing:

University of Missouri, Kevin Bradley’s cover crop research: [http://weedscience.missouri.edu/extension/pdf/Bradley%20cover%20crops%202014.pdf](http://weedscience.missouri.edu/extension/pdf/Bradley%20cover%20crops%202014.pdf)

University of Tennessee, Garret Montgomery’s cover crop research: [http://news.utcrops.com/2016/03/terminate-cover-crop/?utm_source=Tennessee&utm_campaign=668142d35a-UTcrops_News_Updates&utm_medium=email&utm_term=0_1708063e0d-668142d35a-173413945](http://news.utcrops.com/2016/03/terminate-cover-crop/?utm_source=Tennessee&utm_campaign=668142d35a-UTcrops_News_Updates&utm_medium=email&utm_term=0_1708063e0d-668142d35a-173413945)
Future Meetings & Events -

**Wappapello Woodlands Expo** - April 2 from 8:00am to 6:00pm at the Redman Creek Recreation Area. For more information call the Wappapello Lake Management Office at (573) 222-8562 or WLAA at (217) 412-9314.


**Pork Quality Assurance (PQA) training and certification** - April 13, 2016. Perryville, MO. 6:30 to 8:30pm Perry County Extension Office, Cost is $25 (free for youth swine exhibitors fulfilling SMQA requirements). Register with Erin Larimore 573-243-3581 or LarimoreE@missouri.edu.

**Heart of Production: Women in Ag Program** - April 14. Ellington, MO. 9:00am to 4:00pm First Baptist Church in Ellington. Cost: $35/person. Contact Reynolds County Extension Office for more information or to register: 573-648-1035.

**Show-Me-Select Replacement Heifer Sale** - May 7, 2016. Sale time 1:00 p.m. Fruitland Livestock Auction, Jackson, MO. Consignment preview after 8:00 a.m. sale day. Expecting 160 head. Contact Erin Larimore for catalog: 573-243-3581 or LarimoreE@missouri.edu.


Contributions to this publication are made by University of Missouri agriculture food and natural resource specialists. If you would like to receive this publication please send an email with request to:

denklers@missouri.edu

**Commodities and markets** - [http://extension.missouri.edu/scott/crop-budgets.aspx](http://extension.missouri.edu/scott/crop-budgets.aspx)

The Dexter Farmers Market will be held on Thursday afternoons from 4-7 pm on the parking lot of the Circle G feed store on Market Street (just behind Busy B Lumber on One Mile Road going south). This market will start June 2 and is signing vendors up now. Contact the Dexter Chamber of Commerce at 624-7458.