

Missouri Ag News

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Elderberry Shoot Borer

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For those growers who are working on elderberry as an alternative crop be aware of *Achatodes zea*. The Elder Shoot Borer has been spotted this year in Missouri. The larval stage, which hatches in April or May, feeds in unfolding leaf whorls before boring into new lateral shoots and stems. It is a yellow or cream colored caterpillar with a double row of black dots across each segment.

After feeding on lateral shoots they will move to the ground and enter into the base of shoots migrating upward as they grow. This will cause dieback of the infested shoot. By mid-June they leave these shoots and tunnel into dead canes where they will pupate. At this time, if present, the larvae are moving upward inside shoots.

If dead canes are present they should be removed now, before the fully grown larvae make their move to pupate. Any canes that are removed should be destroyed to

prevent any shoot borer larvae from pupating. If the larvae have already entered dead canes there will be small piles of sawdust (frass) on the ground below the cane they entered. These canes should be cut immediately and destroyed. Search for canes with holes as well. This marks a location where the larvae have entered the cane.

Once they pupate the adult moth will lay eggs in July and August in canes that are one year or older. The adult is a moth with rust red forewings mottled with grey and yellowish grey hind wings.

Fall pruning of infested or dead canes is a good strategy to eliminate overwintering eggs. Look for holes at the base of shoots where larvae have entered, remove and destroy those canes.



Adult and larvae of Elder Shoot Borer courtesy of Bugguide.net.

Adapted by Sarah Denkler, Horticulture Specialist, University of Missouri, Poplar Bluff, MO

AG Loan Program Expands

Missouri farmers working with USDA and the Missouri Departments of Agriculture and Natural Resources to strengthen their operations have new opportunities to receive loans and reimbursement for making on-farm improvements. The Bridge Loan Program, a partnership between federal and state agencies, assists farmers by reducing the financial barriers to participating in some state and federal programs.

Recently, the Missouri Agricultural and Small Business Development Authority (MASBDA) voted to expand a 2012 loan program focused on produce to include a much wider range of programs, including cost-share programs available through the Missouri Department of Natural Resources Soil and Water Conservation Program (SWCP) and the USDA Natural Resources Conservation Service (NRCS) Environmental Quality Incentives Program (EQIP).

“As Missouri farmers continue to persevere through tough growing seasons and the many other challenges of farm life, we want to ensure they have every tool necessary to succeed,” said Missouri’s Director of Agriculture Dr. Jon Hagler. “The Bridge Loan Program is one of the many opportunities the Department of Agriculture makes available to our producers as we move Missouri agriculture forward. Through partnerships, we are able to reduce financial hurdles and other barriers for Missouri farmers building their businesses and bringing agricultural products to market.”

The Bridge Loan Program builds on 2012’s High Tunnel Loan Program, which allowed producers to combine the loan with their participation in the USDA-NRCS program, reducing producers’ out of pocket costs. Reimbursement funds issued after producers completed their projects were used to fulfill the short-term loan notes. Approximately one-third of Missouri producers approved for USDA high tunnel reimbursements in 2012 also

participated in the loan program.

To be eligible for assistance through the Bridge Loan Program, producers must be approved for cost-share reimbursements through USDA-NRCS, EQIP and/or SWCP and show proof of financial ability to cover any gaps between reimbursement amounts and project costs, should a gap arise. Applicants must be materially participating in the farming operation and at risk for price or production costs and must commit reimbursement payments from NRCS or SWCP to fulfill the loan note.

Loans offered through the Bridge Loan Program will include monthly interest payments of 5.9 percent interest rate and \$25 closing cost. Funds may be withdrawn only when practices are being implemented, and loan terms may be up to the duration of USDA-NRCS, EQIP and SWCP programs.

According to the last Census of Agriculture, Missouri’s average farm income after expenses was \$13,600, with only 16 percent making more than \$50,000. The large upfront investment typically required by cost-share programs can make it difficult for many farmers and farm families to participate. The Bridge Loan Program lowers some of the financial hurdles associated with participation, making it easier for Missouri’s farmers to access those resources.

Loan applications are available online, or by contacting the Missouri Agricultural and Small Business Development Authority at masbda@mda.mo.gov. For cost-share assistance, producers may also contact their local USDA-NRCS or Soil and Water Conservation District office for application information and forms. For more information on the Missouri Department of Agriculture and its programs, visit the Department online at mda.mo.gov.

Christine Tew, Missouri Department of Agriculture, Jefferson City, MO

Apps for Agriculture

With technology advancing at a faster pace than most are comfortable with it might be a good idea to see some of the latest applications available for smart phone technology that may help ease the burden of office work.

For livestock there are:

iHerd. Provides the user with lifetime traceability of the herd such as treatments and location movements in a simplistic approach.

Livestock Manager. This app allows users to track various information about their animals, including parentage, transport information, medicine administration and more.

For chemical application:

Agrian Mobile. View product labels and material safety data sheets for more than 8,000 crop protection products. Browse usage rates, preharvest and re-entry intervals, worker safety information and more.

Aerial Sprays. From USDA, who is responsible for conducting and reporting research that supports the nation's aerial applicators, who in turn, work with farmers and other producers to protect and supply the nation's food and fiber crops. To make the most efficacious application to a field or orchard, aerial applicators select specific operational parameters (such as spray nozzle type, spray pressure, airspeed, etc...) that will result in spray droplet sizes that produce maximum on-target deposition of the applied product with minimal off-target movement.

DuPont TankMix Calculator Application allows you to easily calculate the amount of product you will need to treat a specific field area, the amount of product you need to apply to a specific tank size, the amount of water you'll need to treat a specific field area or the amount of product you need to get the desired volume to volume ratio.

iPlanta. The calculator solves for the amount of pesticide, land, or plants based on the information provided. The user chooses to input either US or metric units, but the end calculations are given in both unit systems along with a timestamp and the ability to email the results with the touch of a button.

Mix Tank 2.0. Calculate the proper mixing order of tank mix. After determining the tank-mix parameters, you can create field notes on volume per acre, nozzle type, etc., for better record keeping.

Spray Lite. Replaces the manual spray log storing records & spray sheets in one place. Export data in CSV format, stores chemical details, stores all historical chemical applications, contains a filing cabinet in the iPad. Live feed of information from the operator as it happens.

SpraySelect. This app allows you to quickly and easily choose the proper tip or nozzle for your application. Just enter speed, spacing and target rate then select your drop size category and you have a list of tips that will work for your application. The right nozzle is just a few seconds away.

TankCalc US. A unique tool for easy and efficient calculation of filling plans for spraying. It saves time and ensures high accuracy in the tank mixing based on area, tank size, product, dosage and driving speed. The application uses the United States customary system of measurement. The TankCalc has features like: filling plan with the amount of products, water and number of tanks, summary with the total consumption of products and water, recommendation for choice of ISO nozzles, special features minimizes filling - and driving time.

Vector Sprays. From USDA providing users with a quick, easily searchable interface that returns droplet size data for the specified operational setup. The database is structured such that users are requested to select specific operational parameters which include: - Company Name (of the spray system used) - Spray System (model number) - Solution Type (carrier solution used) - Additive/ Insecticide

Weed Manager Plus. Featuring a mobile version of the Crop PHD tool, this app delivers accurate weed management recommendations for your region, a tank mixing tool and a measurement conversion calculator for commercial farmers.

Try these out to see if one or more can help simplify your operation.

Horse Owners Watch for Eastern Tent Caterpillars

Owners of horses, mules and donkeys should keep their animals away from trees favored by eastern tent caterpillars, say University of Missouri Extension specialists.

The eastern tent caterpillar, a native defoliator, typically appears in great numbers after a mild winter and wet spring, said Wayne Bailey, MU Extension entomologist.

When ingested by pregnant mares, these caterpillars can cause mare reproductive loss syndrome (MRLS), which results in the aborting of late-term foal fetuses, said MU Extension forage specialist Craig Roberts.



“They can be in water or near water tanks, and horses swallow them as they drink,” Roberts said. “They can be on the ground and consumed during grazing.”

The caterpillars are most often found in the crotch or fork of wild cherry trees, wild plum trees and other ornamentals in the spring, said Bailey.

The eastern tent caterpillar is distinguished from other

caterpillars by its opulent pearl-white stripe down its back and iridescent blue dots, he said.

The caterpillars strip trees of their leaves after building a thick web nest or “tent.” They leave the nest when trees leaf out, then migrate to sites such as the sides of trees, debris on the ground, fences or sides of buildings, where they will spin cocoons.

There are several ways to manage the pest, Bailey said. Homeowners can simply collect the webbing and worms and burn them. Some might prefer environmentally friendly pesticides such as neem oil or Bt (*Bacillus thuringiensis*). For large areas or where infestation is intense, over-the-counter options include Sevin, which contains carbaryl. Caterpillar tents are water-repellent, so water-based insecticides will be ineffective.

In 2001, Kentucky’s horse industry lost an estimated \$500 million when MRLS afflicted more than one-third of the state’s pregnant mares, even though the mares showed no symptoms of disease just weeks prior to aborting their fetuses.

Wayne Bailey, Entomologist, University of Missouri Extension and Craig Roberts, Professor, University of Missouri, Columbia, MO



The Southeast Missouri

Food Bank is eager for donations of specialty food crops. The food bank will bring a 24 foot box truck to pick up any edible produce, including seconds, which should be in a crate or box.

Contact James Landewee, Operations Director at 573-651-0400 several days ahead of time if possible and specify if a refrigerated truck is needed. He will provide you with a tax receipt for anything you donate.

Egg Licensing

This year the Missouri Department of Agriculture is addressing the issue of a new category "**Limited Retail**" license intended for a special group of retailers selling eggs only at farmers' markets and roadside stands. This new retailer category will not require the additional "dealers" license as in past years. However, this new category is subject to the same requirements as a dealer for labeling cartons as to the grade, size and name and address of the producer/retailer. (Your egg license number is an acceptable substitute of the name and address requirement.)

The current Egg Law was adopted in 1955 and has changed little since that time. However, in recent years, the number of farmers' markets has grown providing consumers with local grown wholesome foods. In response to input from our farmer marketers, the Missouri Department of Agriculture is addressing concerns within the framework of the laws while preserving the mechanism for preventing and tracing food safety issues. The Missouri Department of Agriculture will implement the new policy for retail licenses in time for this year's renewal period.

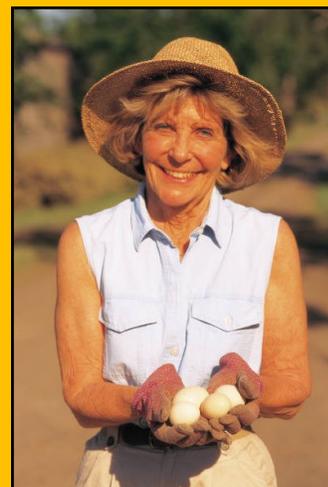
Essentially this means that the **OLD** rule was that you had to have a Retail and a Dealer license even if you sold at a farmers' market and roadside stand. The **NEW** rule says if you sell directly to the consumer only (farmers' market and roadside stand), you will need only a retail license. The fee is the same at \$5.00.

To view the requirements go to <http://mda.mo.gov/weights/device/egglic.php>.

Debi Kelly, Extension Associate and SARE Co-coordinator. University of Missouri, Columbia, MO

WOMEN IN AG TOUR

The University of Missouri Extension invites you to be a part of an educational program for Women in Agriculture on Tuesday, June 11, 2013 at 8:00 a.m. at the NRCS office located at 18450 Ridgeview Lane, Dexter, MO. This program begins with a welcome (coffee and donuts) followed by discussions on Budget and Estate Planning by Jim Tweedy, attorney and Conservation Planning by Michelle Gross with NRCS.



Following discussions will be a group tour to Indian Hills Winery, Away 2 Me Farms and R & J Berry Farms. Lunch will be served while on tour and transportation will be provided. The day should end about 4:30 p.m. at the NRCS office where it started.

Please consider joining us and register by calling Poplar Bluff Extension Center at 573-686-8064. Space is limited to the first 50 people who register by June 7, 2013.

UNIVERSITY OF MISSOURI Extension

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If you are interested in receiving this publication via e-mail or being removed from the email list please send a request to denklers@missouri.edu.

Future Meetings & Events -

Women in Ag Tour: Tuesday, June 11 from 8:00 am to 4:30 pm beginning at the NRCS office, 18450 Ridgeview Lane, Dexter, MO. We will eat lunch as a group during the tour provided by NRCS. Transportation will also be provided. Wear walking shoes, a hat and weather appropriate clothing. Pre-registration is required. To register call 573-686-8064.

Grow Your Farm: Begins Thursday, July 11, 2013 at 6:00 p.m. and will continue weekly for eight weeks. The program is provided at a reduced rate of \$50.00 per farm which covers two persons attending from one farm. Register at 573-686-8064 by July 8, 2013.

Missouri Rice Field Day: Thursday, August 22, 2013 at the Rice Research Farm in Glennonville, Missouri. Contact the New Madrid County Extension Center at 573-748-5531 to register or with questions.

Watermelon Meeting: Mark your calendar for the watermelon meeting to be held on Wednesday, December 4, 2013.

Commodities and markets - <http://extension.missouri.edu/seregion/fmmkt.htm>