

North Mississippi Fruit and Vegetable Growers Newsletter

May 2015 Newsletter



Dr. Jeff Wilson – Regional Horticulture Specialist

It is finally dry and crops are being planted!! It has been good to visit with many of you lately. Fruit crops have struggled in many areas due to the saturated soils, but this seems to be improving as temps raise and soils dry out. Hopefully the season will be consistent as we go into summer. There is research in the ground at NMREC in Verona and plans for much more this summer. There will be a Summer Grower Meeting in late August as a way for producers to come and see research in action. More info will be sent in advance so you won't miss this event. Good luck with this season of production and please call me if I can help in any way.

Dr. Alan Henn, Extension Plant Pathologist

Current Challenges Facing Our Peaches

As I write, most of our soils are water saturated. The few days of drying we had are undone by additional rains, cloudy skies and – thankfully for most diseases, cool weather. These environmental conditions can overwhelm the “disease triangle” and drive diseases and other problems not normally experienced. Some things to watch for:

1. Walk your trees and note where water: 1) pools 2) how close to the drip edge these pools are. **These are areas need improved drainage.** Standing water pushes air from the soil. Without air the roots cannot breathe. They stop working. If the water sits long enough, the roots in that area will die. Two problems result from these conditions:

A. In hot summer, when the tree needs maximal amounts of water to cool themselves, those roots will not be there to supply all the water needed, and some wilting and tree stress will result. Stress may result in lost fruit, poorly filling fruit, and create conditions for diseases.

B. The water creates conditions favorable for the “water mold” pathogen *Phytophthora*. This pathogen invades the root and lowest section of the trunk. The tree will produce 'gum' resin to try and protect itself. Behind the gum and under the bark the wood will have a reddish color. This pathogen will kill the tree. Fortunately, the temperatures have been on the low side for many of the worst *Phytophthora* species in our area.

2. Temperatures have been sub-optimal for most of the regular peach diseases. However, leaf curl would be most favored. Some few days could promote brown rot as well. Please make sure that your trees have been well covered with fungicides.

Dr. Blake Layton, Extension Entomology Specialist

Control Fruitworms and Stink Bugs on Tomatoes

Tomatoes are attacked by many different insect pests, but in terms of consistency and persistence, tomato fruitworms and stink bugs are the two most important. Fail to control tomato fruitworms and you can lose more than half you crop, and stink bug damage can make the other half unmarketable. Fortunately, these two pests can be controlled by applying effective products and maintaining appropriate sprays.

Fruitworm moths lay their eggs individually on bloom clusters, and the tiny larvae begin feeding on blooms and small tomatoes as soon as they hatch. During the 11 to 14 days it takes them to develop to maturity, a tomato fruitworm caterpillar can destroy 3 to 5 tomatoes, and a single fruitworm moth can lay hundreds of eggs!

This is why fruitworm sprays need to be applied weekly once tomatoes begin to bloom and set fruit. Large fruitworms are difficult to control, even when they are fully exposed, and fruitworms are impossible to control once they have bored into a tomato. The goal is to control newly-hatched caterpillars before they bore into fruit. Insecticide treatments can usually be tank-mixed with fungicide treatments, but be sure to check the labels of all potential tank-mix partners for compatibility.

Stink bugs, as well as leaf footed bugs, also become a threat once plants begin to set fruit. Both adults and nymphs cause damage by feeding directly on the tomato with their piercing-sucking mouthparts. Tomatoes that are fed on when green and still growing may be distorted, or “catfaced,” while tomatoes that are fed on near maturity will have white or yellow “yeast spots” underneath the skin where stink bugs have fed.

Radiant (spinetoram, PHI = 1 day), Belt (flubendiamide, PHI = 1 day) and Coragen (chlorantraniliprole, PHI = 1 day) are three caterpillar-specific insecticides that work well on fruitworms. These products do not control stink bugs, but because they are less likely to flare spider mites and whiteflies, these are good products to use early in the season when stink bugs are not present. These products will also control armyworms, which can also damage fruit.

Pyrethroid insecticides such as: Mustang Max (zeta-cypermethrin, PHI = 1 day), Baythroid (beta-cyfluthrin, PHI = 0 days) or Brigade (bifenthrin, PHI = 1 day) control both fruitworms and stink bugs, making these key insecticides for commercial tomato production. However, pyrethroids are more likely to flare whiteflies and spider mites, and brown stink bugs are less susceptible to pyrethroids than are the two green stink bug species. In some situations, such as later in the season when fruitworm and stink bug pressure is high, it may be necessary to apply a tank mix containing both a pyrethroid and one of the non-pyrethroid treatments.

What about those hornworms that are such a problem for home gardeners? Commercial tomato producers who have an effective spray program for fruitworms and stink bugs rarely see hornworms in tomatoes.

Dr. Eric Stafne, Fruit Crops Specialist

Flea Beetle Damage in the Vineyard

Flea beetles are an early season pest in the vineyard. Both the adults and larvae are present during the Spring. The best time to control this pest is at bud swell, as if not controlled they will continue to cause problems later as larvae. Several products can be used to control flea beetles in the vineyard, such as Sevin, Danitol, Baythroid, etc. See the photo below for the kind of damage the larvae can inflict on leaves (but also blooms). Adult beetles will feed on swelling primary buds, and this is the more serious type of damage that occurs. If this is a problem, they should be controlled to prevent a reduction in shoots (and crop) in the following years.

UPCOMING EVENTS

TriState ArkLaMiss Trade Show & Convention June 18-19, 2015

Natchez Convention Center, 211 Main Street, Natchez, MS 39120

A block of rooms has been reserved at the Natchez Grand Hotel, right across the street from the Convention Center. Rooms are around \$120/night if you ask for TriState Pecan rate. The phone number is 601.446.9994 and the web address is www.natchezgrandhotel.com. There are a number of other hotels and B&Bs in Natchez.

USDA Announces Funding Available for Specialty Crop and Organic Agriculture Research and Extension Programs

WASHINGTON, March 10, 2015 - Agriculture Secretary Tom Vilsack today announced the availability of more than \$66.5 million in funding for research and extension activities to address the needs of America's specialty crop industry and solve critical organic agricultural production issues. The grants will be funded through the [Specialty Crop Research Initiative](#) and the [Organic Agriculture Research and Extension Initiative](#). Both programs are administered by USDA's National Institute of Food and Agriculture (NIFA) and made available through the 2014 Farm Bill.

"Investments in projects to help organic producers and specialty crop growers are an important way USDA helps American farmers establish new business opportunities throughout the country," said Vilsack. "The projects funded by these programs will build on USDA support for local and regional markets. And strengthening local markets grows the rural economy while improving access to healthy food for millions of children and supplying farmers markets, restaurants and other businesses with fresh, high-quality fruits and vegetables."

Specialty crops are defined in law as "fruits and vegetables, tree nuts, dried fruits and horticulture and nursery crops, including floriculture." The [Specialty Crop Research Initiative](#) (SCRI) develops and disseminates science-based tools to address the needs of specific crops. The projects funded address research and extension needs for crops that span the entire spectrum of specialty crops production, from researching plant genetics to improving crop characteristics; identifying and addressing threats from pests and diseases; improving production and profitability; developing new production innovations and technologies; and developing methods to respond to food safety hazards.

Past projects include a project at Michigan State University to develop sustainable pollination strategies for U.S. specialty crops, a grant to the University of Arkansas to create genomic resources needed for spinach to develop resistance to the downy mildew pathogen, and a project at North Carolina State University that is developing genomic tools to produce low cost and high quality Christmas trees with properties desired by consumers.

SCRI pre-applications are due March 30, 2015, and full applications are due July 2, 2015. Please see the [request for applications](#) for specific program requirements.

Additionally, in fiscal year 2015, NIFA will make \$25 million available through the Citrus Disease Research and Extension (CDRE) program, a subset of SCRI focused on research and extension activities to improve citrus health. NIFA will issue a supplemental Request For Applications for CDRE subsequently.

The purpose of the [Organic Agriculture Research and Extension Initiative](#) (OREI) is to fund high-priority research, education, and extension projects that enhance the ability of producers and processors who have already adopted organic standards to grow and market high quality organic products. Priority concerns include biological, physical, and social sciences, including economics. Past projects include a project at Utah State University to foster the development of economically viable and environmentally sustainable farming systems to address the issues facing western U.S. dryland organic wheat producers, a grant to Iowa State University to enhance the sustainability of organic systems by integrating crop and livestock production systems, and a project at Purdue University that addresses crop management issues faced by organic tomato producers.

Funded projects will aid farmers and ranchers with whole farm planning by delivering practical research-based information and will improve the ability for growers to develop the Organic System Plan required for

certification.

OREI has eight legislatively-defined goals:

- Facilitating the development and improvement of organic agriculture production, breeding, and processing methods.
- Evaluating the potential economic benefits of organic agricultural production and methods to producers, processors and rural communities.
- Exploring international trade opportunities for organically grown and processed agricultural commodities.
- Determining desirable traits for organic commodities.
- Identifying marketing and policy constraints on the expansion of organic agriculture.
- Conducting advanced on-farm research and development that emphasizes observation of, experimentation with, and innovation for working organic farms, including research relating to production, marketing, food safety, socioeconomic conditions, and farm business management.
- Examining optimal conservation and environmental outcomes relating to organically produced agricultural products.
- Developing new and improved seed varieties that are particularly suited for organic agriculture.

A Notification of Intent to Submit an Application is due on April 1, 2015. Full applications are due April 30, 2015. Please see the [request for applications](#) for specific program requirements.

NIFA previously announced more than \$51 million in funding for the fiscal year [2014 SCRI grantees](#). Additionally, NIFA announced more than \$19 million in funding for the fiscal year [2014 OREI grants](#).

Today's announcement was authorized by the 2014 Farm Bill. The Farm Bill builds on historic economic gains in rural America over the past six years, while achieving meaningful reform and billions of dollars in savings for taxpayers. Since enactment, USDA has made significant progress to implement each provision of this critical legislation, including providing disaster relief to farmers and ranchers; strengthening risk management tools; expanding access to rural credit; funding critical research; establishing innovative public-private conservation partnerships; developing new markets for rural-made products; and investing in infrastructure, housing and community facilities to help improve quality of life in rural America. For more information, visit www.usda.gov/farmbill.

Through federal funding and leadership for research, education and extension programs, NIFA focuses on investing in science and solving critical issues impacting people's daily lives and the nation's future. For more information, visit www.nifa.usda.gov.

MSU-ES Contact info:

Below are the contact names and numbers that are directly related to the association and your production issues. Please start with your local county Extension agent to help find answers to your questions. They are capable of handling your request and have access to all of our resources

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