



# APPLE PRODUCTION NEWSLETTER

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## Inside This Issue

EverCrisp . . . . .	2
Agronomic Lab . . . . .	3
Fall Herbicide . . . . .	5
Crop Insurance Deadline . . . . .	5
Glomerella . . . . .	6
Apples to China . . . . .	7
Important Dates . . . . .	8

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Dear Grower,

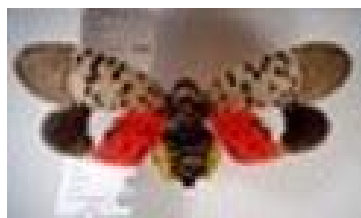
It has been another challenging fruit year with frost, freeze, hail and disease effecting fruit quality and prices. But, overall most growers have reported a good fruit year. Now is the time to start thinking about next season... liming, fertilizing, rat bait, orchard floor cleaning, chopping brush, herbicides and winterizing equipment to name just a few.

As we think about the new season most of you will be contemplating replacing old orchards and trying to decide what varieties and root-stock combinations will take its place. Fruit catalogs with beautiful pictures of potential new varieties will excite most growers with the possibility of offering best new varieties, and the next "greatest apple variety ever".

To help growers actually see new fruit varieties grown under our local conditions, the Henderson County Variety Block was established in 1986, located at Richmind Company in Dana, NC. Over the years the Variety Block has proven to be a great source of fruit variety information. The evaluation of potential new varieties has been accomplished with the help of Master Pomologist volunteers. The 2013-14 class was made up of 18 students/volunteers who completed a 57 hour in-depth pomology course. Students learned how to grow trees and fruit for quality, using the latest research based fruit growing techniques and methods. These volunteers have given back to the NCCES, Henderson County Center and the county apple industry over 1,360 man hours x \$20.25 (state volunteer value rate) = \$27,540.00 (estimated value) .

*continued on page 2*

## Agriculture Secretary Urges Consumers to Help Keep Foreign Insect from Spreading through Pennsylvania, United States



**Harrisburg** - An invasive insect new to the United States that has the potential to impact grape, fruit trees and the hard wood industries has been discovered in Berks County, PA, prompting the . . .

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**NC** State University  
 A&T State University  
**COOPERATIVE  
 EXTENSION**

*Empowering People · Providing Solutions*

continued from page 1

Through their dedicated effort, over 118 new fresh fruit and old cider varieties have been assessed this season. In our post-harvest evaluation, fruit was rated using indices such as: pressure, sugar, starch and flavor. The final results of our findings are complete and have been published. Copies of the report are available at the Henderson County Cooperative Extension Center in Jackson Park. These finding should help you determine if that new variety you are looking for will fit your location and market. We are still looking for the "greatest apple variety ever". But, we have found some truly outstanding varieties we think you and your customers will like.

We plan to offer another Master Pomology Course (condensed) starting in January 2015. For more information, contact Ivy Olson, at 697-4891 or ivy\_olson@ncsu.edu.

Sincerely, Marvin

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### EverCrisp on its way

It was 2001 when David Doud of Countyline Orchards, New Wabash, IN received 320 Honeycrisp/Fuji crosses from MAIA. Those crosses have been "exceptional," he said, producing a high percentage of crisp, sweet, "modern-type" varieties. Honeycrisp hasn't always been a good parent in the past, but this particular combination has been "tremendous."

When the MAIA block began to fruit in 2007, Doud flagged a few of the more promising trees. The original EverCrisp tree – he uses the horticultural term "ortet" – was not flagged. It wasn't until the next year that he and other members of MAIA started to discover how special it was. Once they did, MAIA sent wood from the ortet to Wafler Nursery in New York state, which started propagating test trees.

Doud kept a close watch on the Honeycrisp/Fuji seedling trees for the next few years, and noticed that the EverCrisp ortet consistently cropped about four bushels of apples per season (except in 2012, when freezes wiped out every apple he had) with no thinning required. Now 15 years old, the tree is still relatively small and has a nice shape, with a spreading growth habit and 90-degree crotch angles. He pruned it once to clean it out a little bit, but other than that he's done "nothing major."

In Doud's region, north-central Indiana, EverCrisp is ready to pick after Oct. 10. He expects it to be a single-pick apple; it will hang and wait for harvest as long as the grower wants, increasing in sugar and quality through early November. The variety has not exhibited cracking, bitter pit, pre-harvest drop or shriveling in storage. It has exhibited watercore, but losses to watercore breakdown have so far been negligible; fruits run a consistent 3 to 3.25 inches in diameter.

Doud has received "maybe 150" EverCrisp trees from Wafler Nursery on B.9, G.41 and G.935 rootstocks. He has roughly the same number on M.7. He said the G.935 trees are "very impressive."

Doud has yet to sell any EverCrisp. The small quantities he's grown so far have been used for sampling and promotions. He won't sell any this year, either.

### Developing apples

There are half a dozen varieties still in the breeding pipeline that Doud would love to talk about, but MAIA is being cautious about releasing information. He did say that the group is using EverCrisp as a parent, crossing it with other varieties.

continued on page 3

Apple growers Mitch Lynd and Ed Fackler founded MAIA in 1998. Concerned about proprietary apples, they decided it was best for Midwest growers to breed their own varieties instead of scrambling to get them from somebody else. Most of MAIA's growers and nurserymen are in Ohio, but there are members in Indiana, Illinois, Kentucky, Missouri and Michigan. The members evaluate seedling results more or less on their own. If one of them discovers a superior apple, such as EverCrisp, all members have access to it, Lynd said.

EverCrisp apples aren't selling in the marketplace yet, but plantings are spreading. Approximately 25,000 trees were planted in 20 locations in six states this year. Close to 250,000 trees have been sold for 2015 and sales are nearing 350,000 for 2016. Wafler Nursery and Hilltop Nursery are currently selling EverCrisp trees; several other nurseries have licenses to sell them but aren't doing so yet. Budwood is tight for 2016, but should be more readily available for 2017. Rootstocks currently in use are G.935, G.41 and B.9, according to Bill Dodd, MAIA's executive director.

White House Fruit Farm, a member of MAIA, has about an acre of EverCrisp trees on B.9, G.41 and G.935. The farm, based in Canfield in eastern Ohio, planted the trees in 2013 and 2014. With virtually no experience with the variety, they're still figuring out factors like optimal rootstock and correct tree and row spacing, said David Hull Jr., a member of the family that runs the business.

"It's a learning experience for everybody," he said. "The taste is very, very good, but what sets it apart from other sweet apples is its texture. It seems to be able to keep very well outside of refrigeration, which excites growers and retailers. "It may turn out to be a wonderful apple, but you never know with any apple," Hull said.

Grappling with the uncertainty – and length of time – involved in developing a new variety like EverCrisp requires an extraordinary amount of patience and faith. But Doud is enjoying every minute. "I've never had more fun with fruit," he said.

The enjoyment is not restricted to Doud. MAIA is still making crosses and distributing seedlings to orchards, and membership is open. "Others can still get in on the fun of developing the next generation of apple improvement," Doud said.

*By Matt Milkovich, FGN , October 2014*

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## **Agronomic Lab News September 18, 2014**

The Soil Test Peak Season will begin on Wednesday, November 26, 2014 and extend through Tuesday March 31, 2015. During this time period, soil samples are charged a \$4/sample peak-season fee.

To avoid the fee, soil samples have to be on the loading dock by 6:00 pm on Tuesday, November 25, 2014. Note: expedited shippers and heavy metal samples will not be charged an additional \$4 fee.

Access to the Eddy building during the peak season fee period will be limited to Monday through Friday, 6:00 am until 6:00 pm. At other times, a closed gate will limit access to the building after hours and on weekends.

continued from page 1

quarantine of Pike and District townships.

The Spotted Lanternfly, an inch-long black, red and white spotted pest, is native to China, India, Japan and Vietnam. It's an invasive species in Korea, where it has attacked 25 plant species which also grow in Pennsylvania.

"Since this is new to the country we are taking every precaution possible," said Agriculture Secretary George Greig. "We need to do everything we can to stop the spread of the Spotted Lanternfly. "Help us by looking for adult insects and their egg clusters on your trees, cars, outside furniture – any flat surface that the eggs may be attached to."

The Spotted Lanternfly, *Lycorma delicatula*, attacks grapes, apples, pines and stone fruits. It often attaches to the bark of Tree of Heaven (aka Paradise Tree – an invasive species similar to Sumac). Adults often cluster in groups and lay egg masses containing 30-50 eggs that adhere to flat surfaces including tree bark. Freshly laid egg masses have a grey waxy mudlike coating, while hatched eggs appear as brownish seedlike deposits in four to seven columns about an inch long. Trees attacked by the Spotted Lanternfly will show a grey or black trail of sap down the trunk.

The general quarantine of the two townships restricts movement of any material or object that can spread the pest. This includes firewood or wood products, brush or yard waste, remodeling or construction materials and waste, packing material like boxes, grapevines for decorative purposes or as nursery stock, and any outdoor household articles like lawnmowers, grills, tarps and any other equipment, trucks or vehicles not stored indoors.

Businesses in the general quarantine area need to obtain a Certificate of Limited Permit from the department in order to move articles. Criminal and civil penalties of up to \$20,000 and prison time can be imposed for violations by businesses or individuals. The department is investigating the quarantined and surrounding areas to assess the spread and impact of the pest.

"Berks County is the front line in the war against Spotted Lanternfly," said Greig. "We are taking every measure possible to learn more, educate the public and ourselves and eliminate this threat to agriculture. "We know we're asking a lot, but we know Pennsylvanians will assist us and help save our fruit trees, grapes and forests."

For more information including photos and video of the Spotted Lanternfly, the full quarantine order, a sample submission form and updates in the fight, visit [www.agriculture.state.pa.us](http://www.agriculture.state.pa.us) and search "lanternfly."

*Information from the Department of Agriculture, News Release, 11/3/14*

**We will keep you updated as additional information is received. Should you collect a specimen turn the adult specimen or egg mass in to the Extension Office in Jackson Park and we will submit it to the Entomology Department at NC State for verification. Place the sample in alcohol or hand sanitizer in a leak proof container.**



**Happy  
Holidays!**

**Wishing you and your family  
a wonderful holiday season  
and a very happy and  
healthy New Year!**

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## Fall Herbicide Considerations

By Wayne Mitchem  
Extension Associate, Horticulture - NCSU

After harvest is a good time to reflect on practices or programs you may want to change for next season. There are several areas or decisions you may want to really consider seriously in this process.

**Did my herbicide program work well for me last season?** This question often leads to another of why? Or why not? Good rainfall within 3 weeks of application is essential herbicide activation and if you had issues with a program that has worked well in the past but did not do as well this year that may be a reason. Another possibility is it may be time to change programs. Using the same herbicide year after year selects for weeds that a specific herbicide is ineffective at controlling. There are a lot of herbicides and herbicide combinations for orchards and it may time try something different.

**How well are perennial (woody vines, blackberry, nutsedge and perennial grasses) weeds being controlled?** Problem weeds like certain perennials require special attention and if any of these weeds are issues you may have call on some specialized herbicides to address their presence. Starane Ultra is excellent at controlling woody perennials and should be used in the spring as these weeds leaf out and begin to grow. Yellow nutsedge is more common in orchards than ever before and fortunately timely applications of Sandea can be used in apple orchards to control this pesky weed. There is no question perennial grasses are a nuisance and are very competitive as well as difficult to control. The key to dealing with perennial grasses is persistence. Timely and repeated applications of products like Poast or herbicides containing clethodim will be beneficial and worth the time and expense.

**3. Am I happy with my application technique?** This is a question that requires consideration of several issues. The first that comes to mine for me is spray volume. Herbicides should be applied in a spray volume of 20 to 25 gal per treated acre. That volume provides adequate coverage for contact herbicides like paraquat as well as allows for adequate concentrations of systemic herbicides such as glyphosate or Poast. This is also a good time to consider fitting application equipment with hoods, curtains, or covers. Although apple trees have good tolerance to herbicides we should make every effort to minimize herbicide contact with foliage. Shields or curtains do this by physically preventing contact and minimizing the potential for drift from windy conditions. Keep in mind I said **minimize, not eliminate**.

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## Crop Insurance Deadlines Nears in North Carolina

**Release No.: RMA-14-167**

Raleigh, NC, Oct. 20, 2014 - USDA's Risk Management Agency (RMA) reminds North Carolina apple, blueberry, grapes and peach growers that the final date to apply for crop insurance on next year's crop is November 20, 2014. Current policyholders who wish to make changes to their existing policies also have until November 20 to do so.

For additional information here is the link to the actual News Release:

[http://www.rma.usda.gov/fields/nc\\_rso/2014/nccropdeadline112014.pdf](http://www.rma.usda.gov/fields/nc_rso/2014/nccropdeadline112014.pdf)



## Glomerella Leaf Spot Inoculum Reduction Methods

**Keith S. Yoder**

Professor of Plant Pathology  
Virginia Tech Agricultural Research and Extension Center

Glomerella leaf spot (GLS) developed later in 2014 and was generally not as severe in southern Virginia and western North Carolina as it was in the unusually wet year of 2013. But there can still be benefit by reducing the amount of overwintering inoculum going into 2015.

The GLS fungus can overwinter on leaves as well as the conventional means of overwintering by bitter rot, including buds, colonized dead wood and cankers.

### **Inoculum reduction methods:**

Reduce inoculum on leaves by encouraging their rapid breakdown. This can be done three ways: 1) by foliar urea applications to the tree with nozzles aimed down to also cover the ground; 2) by raking and flail-chopping after all the leaves have fallen; 3) by ground sprays with urea after all the leaves are down. These practices also reduce inoculum of scab, Brooks spot, and Alternaria leaf blotch on Red Delicious.

The goal is to reduce the disease inoculum levels as efficiently as possible, and using more than one of these inoculum reduction methods should improve the likelihood of success of the effort. By early November, if most of the diseased leaves are already on the ground, raking, mowing and ground sprays are probably more effective options than foliar sprays to the tree.

For fall urea sprays, the suggested application rate has been 40 lb of urea per acre, the rate used for apple scab inoculum reduction in the Northeast. If you are concerned that this will promote late season growth and increase the risk of early winter injury in your situation, you might try a lower rate, such as 20 lb/A, and make only a ground application for complete coverage of the orchard floor, rather than into the tree.

The objective of the urea application is to increase microbial activity that speeds breakdown of the leaf tissue, so try to be as thorough as possible, covering all areas of the orchard floor under the tree and in the row middles.

Do not include copper with the urea, because copper would be counter-productive by inhibiting the microbial activity of organisms that facilitate leaf breakdown.

Also remove other possible sources for overwintering of bitter rot, such as large and small fruit mummies, colonized dead wood and fire blight cankers.

### **MANAGING GLOMERELLA LEAF SPOT NEXT YEAR**

The moisture and temperature conditions that favor bitter rot development generally also favor GLS infection and development. Leaf infections can develop soon after bloom during warm, wet years, and leaves can be infected in as few as 2-4 hr at 75-86°F. Disease severity increases proportionally as temperatures increase from 57°F to 79-84°F. The disease cycle is probably underway by early to mid-May in western North Carolina.

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For management purposes, we are on target if we think of Glomerella leaf spot as a bad case of bitter rot that also infects and overwinters on leaves. While our focus may be directed more toward GLS, we should think of it as part of the overall summer disease spectrum that we need to manage from petal fall until harvest. Control is based on sanitation (inoculum removal) and a regular protectant fungicide spray program.

Summer disease management and pre-harvest sprays in the orchard directly affect postharvest quality and storage rot problems. We should select the fungicides most suitable for management of GLS and all the other diseases that may present a problem at different times throughout the cover spray period, and maintain intervals of pre-harvest fungicides appropriate to local disease pressures and weather conditions.

Also, we must observe all label restrictions, including pre-harvest intervals (PHI), maximum amounts per acre per year and number of applications, particularly for compounds at risk for development of resistance by any of the targeted fungi.

More information on control products and strategies will be presented at several grower meetings this winter.

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## Washington apples to restart shipments to China

After more than two years without access to China for Washington Red and Golden Delicious apples, USDA today announced reinstatement of market access for those varieties.

That's good news for growers who regain a sizable market. Washington shipped three million 40-lb cartons to China during the 2010-11 marketing year, the last year before the closure.

What changed to re-open China? For starters, the apple must pass onerous control measures. Associate Editor Melissa Hansen has the story. [Click this link for full story:](#)

<http://www.goodfruit.com/china-opens-to-washington-state-apples/>

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## Did You Know?

**You can receive this newsletter via email.** Let us know if you are interested. Call 697-4891 or email: [ivy\\_olson@ncsu.edu](mailto:ivy_olson@ncsu.edu). This also gives us the ability to send updates/breaking news when it happens. Hope you will consider this for future issues.

**Make sure to check out all the “Important Dates” information on the back page.**



Henderson County Center  
100 Jackson Park Road  
Hendersonville, NC 28792

**Important Dates:**

**January 13th & 14th - Southeastern Apple Growers Annual Meeting and Show**

Held at the Crown Plaza Resort in Asheville. For more information visit [ncapplegrowers.com](http://ncapplegrowers.com)

**February 4th - Winter Apple School, 8am - 5pm at Blue Ridge Community College**

This program offers 2 “X “ Pesticide credits. Learn more & register, call 697-4891.

**February 5th - Winter Vegetable School at Blue Ridge Community College.**

Learn more & register, call 697-4891.

**MARK YOUR CALENDARS NOW FOR THESE GREAT EVENTS!!!**

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*Every effort has been made to provide correct, complete and up-to-date pesticide recommendations. Nevertheless, changes in pesticide regulations occur constantly and human errors are possible. These recommendations are not a substitute for pesticide labeling. Please read the label before applying any pesticide.*

*Person with disability and persons with limited English proficiency may request accommodations to participate in programs mentioned in this newsletter, by contacting Marvin Owings at 828 697-4891 or in person at the County Extension Office at least 4 days prior to the event.*

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