



# Ohio Fruit ICM News



Editor: Ted W. Gastier, Extension Educator, Agriculture  
Ohio State University Extension, Huron County  
180 Milan Avenue, Norwalk, OH 44857 419-668-8219  
FAX: (419) 663-4233 E-mail: [gastier.1@osu.edu](mailto:gastier.1@osu.edu)

Volume 9, No. 27

July 21, 2005

## In This Issue

### Calendar

Berry Farm Fundraiser for Cancer Research  
Grape Wine Workshops  
Sooty Blotch & Fly Speck Revisited  
Email Marketing on Our Farm  
Pest Phenology  
Degree Day Accumulations  
Fruit Observations and Trap Reports

**Resource Managers' Forum**, Hilliard, OH, 10:00 AM-2:30 PM. Registration and fee requested by November 8. Contact Mid American Ag and Hort Services at 614-246-8286, [maahs@ofbf.org](mailto:maahs@ofbf.org) or visit [www.midamservices.org](http://www.midamservices.org) and click on 'Events' for registration form and details.

**December 6-8, 2005. Great Lakes Fruit, Vegetable, and Farm Market EXPO**, DeVos Place Convention

Center, Grand Rapids, Michigan. For additional information, visit [www.glexpo.com](http://www.glexpo.com).

### **Berry Farm Fundraiser to Support Ohio State Cancer Research**

*Sources: Mike Pullins and Sandy Kuns, written by Candace Pollock, OSU News and Media Relations*

Central Ohio berry lovers have the opportunity to not only eat healthier, but also give back to the science that supports the varied health benefits of the fruit. Champaign Berry Farm, a 28-acre family-owned operation just outside of Urbana, Ohio, is sponsoring a cancer fundraiser July 23-24. Proceeds from the sale of pick-your-own black raspberries will be donated to support the partnership that Ohio State University's College of Food, Agricultural, and Environmental Sciences and the Arthur G. James Cancer Hospital and Richard J. Solove Research Institute share in cancer prevention research.

Farm owners Mike Pullins, wife Cathy, and sons Matt and Kent work closely with Ohio State South Centers at Piketon to support the state's berry industry and encourage increased berry consumption. Mike Pullins said the cancer fundraiser is not only a way of giving back to Ohio State, but also to encourage people to eat healthfully.

## Calendar

**July 23-24: Berry Farm Fundraiser to Support Ohio State Cancer Research**, Champaign Berry Farm, Mutual, OH. See following article.

**August 3: Grape-Wine Workshop**, Vinoklet Winery, Cincinnati. See second article.

**August 10: Grape-Wine Workshop**, Firelands Winery, Sandusky. See second article.

**August 24: Grape-Wine Workshop**, Raven's Glenn Winery, West Lafayette. See second article.

**September 20-22: Farm Science Review**, Molly Caren Agricultural Center, London, OH. Details at: <http://fsr.osu.edu>

**October 14-15, 2005: Highbush Blueberry Council (USHBC) Fall Meeting**, Amway Grand Plaza Hotel, 187 Monroe NW, Grand Rapids, Michigan. Contact: 616-885-2000 for information.

**November 15: Ohio Ag and Hort Human**

“It’s an opportunity for people to fight cancer twice: by eating healthier and by contributing to more cancer research,” said Pullins, who also works as executive director of the Ohio Farm Bureau Development Corporation. “We’ve seen a 25 to 30 percent increase in consumer demand on our farm this year, and a lot of that probably has to do with the increasing awareness of the health benefits linked to berries.” Twenty percent of the proceeds, or 50 cents from every pound of pick-your-own black raspberries sold during the promotion, will be donated to fund ongoing and future cancer research.

Berries, whether raspberries, strawberries, blueberries or elderberries, are known to contain compounds with anti-carcinogenic properties, which can vary by such factors as berry variety and production practices. An interdisciplinary team of Ohio State University food, agricultural, and medical researchers are studying berries to determine if they can stop or slow some of the biological processes that contribute to the development or spread of certain types of cancer.

“The berry farm promotion helps recognize research conducted by the James Cancer Hospital and the College of Food, Agricultural, and Environmental Sciences and aids in making that connection back to the farm,” said Sandy Kuhn, Ohio State South Centers berry coordinator. “It also helps boost the berry market in Ohio by showing people that berries can be raised quite successfully in the state. Cancer research coming from the James is being supported from Ohio-grown black raspberries.” Laboratory studies have already shown the positive impacts of black raspberries on oral, colon, and esophageal cancers in rats. Human clinical trials are underway at the James in hopes of finding similar results.

Champaign Berry Farm is utilizing ongoing OSU Extension variety and cultural trials of blueberries, red raspberries and black raspberries. The purpose of the trials is to identify varieties and practices that will be successful in Ohio and meet market demand, thereby helping to solidify a viable berry industry in the state for the future.

Information on Champaign Berry Farm can be accessed by logging on to <<http://www.champaignberryfarm.com>> or by calling 937-653-7525. The farm is open from 7 a.m. to 8:30 p.m. on July 23, and from 2 p.m. to 8:30 p.m. on July 24.

### **Grape-Wine Workshops**

*Source: Imed Dami, OARDC Viticulturist*

The Grape-Wine Program at the Department of Horticulture and Crop Science at OARDC is offering a series of workshops. Topics will include current situations in vineyards and questions regarding grape growing and wine making in Ohio. Imed Dami, Viticulturist, Dave Scurlock, Viticulture Assistant, and Todd Steiner, Extension Enologist will be present to answer your questions. We encourage you to attend and bring your questions with you regarding your vineyard/winery operations. Also, take this opportunity to visit commercial vineyards and wineries and interact with the winemakers. For your convenience, you can choose the location closest to you to attend. We look forward to seeing you there.

#### **What:**

Question and answer session  
Vineyard tour and current practices  
Winery tour

#### **Where:**

1<sup>st</sup> session: Vinoklet Winery  
2<sup>nd</sup> session: Firelands Winery  
3<sup>rd</sup> session: Raven’s Glenn Winery

#### **When:**

1<sup>st</sup> session: August 03, 2005, 10am – 1pm  
2<sup>nd</sup> session: August 10, 2005, 10am – 1pm  
3<sup>rd</sup> session: August 24, 2005, 10am – 1pm

**Cost:** Free, with lunch on your own

No pre-registration is necessary, but if you plan to attend, please contact Dr. Imed Dami at [Dami.1@osu.edu](mailto:Dami.1@osu.edu), Dave Scurlock at [scurlock.2@osu.edu](mailto:scurlock.2@osu.edu), or Todd Steiner at [Steiner.4@osu.edu](mailto:Steiner.4@osu.edu).

---

## Sooty Blotch & Flyspeck Revisited

Source: Bill Turechek and Dave Rosenberger, *Plant Pathology, Geneva and Highland, NY*

Sooty blotch and flyspeck (SBFS) are two of the most important summer diseases of apple in New York. The diseases do not result in direct losses in yield, but rather they cause a reduction in fruit quality, which can lead to economic loss due to downgrading in fresh market fruit. Losses can exceed 25%, especially in warm humid climates such as those experienced in southeastern NY, southern New England, and the mid-Atlantic and southern states.

Until recently, sooty blotch was thought to be caused by the fungus *Gloeodes pomigena*. However, recent studies have shown that sooty blotch is a disease complex caused by at least three different fungi: *Peltaster fruticola*, *Leptodontium elatius*, and *Geastrumia polystigmatis*. All three fungi are not necessarily present in all sooty blotch lesions. Flyspeck is caused by the fungus *Schizothyrium pomi* (= *Zygothiala jamaicensis*).

### Symptoms

Sooty blotch appears as various shades of olive-green on the surface of the fruit. Colonies range in shape from nearly circular with distinct margins to rather large, amorphous blotches with diffuse margins. The variation in shapes and color can be attributed to the differences among the three fungi causing the disease and environmental conditions, specifically temperature and relative humidity. Fruit infection typically occurs in June and the first symptoms are generally apparent 20 to 25 days after infection, but can be visible as soon as 8 to 12 days after infection if conditions are warm and wet.

Flyspeck appears as distinct groupings of shiny, black fungal bodies (called thyriothecia) on the surface of the fruit. The number of thyriothecia associated with a single infection ranges from a few to over fifty. Although flyspeck thyriothecia appear to exist individually, close examination reveals mycelium connecting the individual structures. The primary spores are discharged starting around 2 weeks after petal fall and symptoms may be visible 10-12 days after infection under optimal conditions, but may not be visible for 1 month under less than ideal conditions.

These primary infections will give rise to

conidia, which initiate secondary cycles of infection throughout the remainder of the season. Numerous observations in the field have shown that warm and wet or humid conditions are needed for the development of disease. For both flyspeck and sooty blotch, the causal fungi grow only within the wax cuticle of the fruit and are quite superficial. Rubbing the fruit with a cloth will often be enough to “clean-up” an apple that is only lightly affected.

### Disease Management

Proper pruning and fruit thinning can have a huge impact on the effectiveness of fungicides used to control SBFS. In a 2-year study conducted in Massachusetts, Cooley et al. (1997) showed that summer pruning could reduce the incidence of flyspeck by nearly 50% in an unsprayed orchard. In the same study, they showed that the number of fruit downgraded from USDA Extra Fancy was reduced when summer pruning was done in commercial orchards. They concluded that summer pruning helped to decrease the incidence of flyspeck by reducing the number of hours of relative humidity >95% and allowing increased penetration of pesticides to the upper two-thirds of the canopy when applications were made with an airblast sprayer.

Effective fruit thinning is also important for effective control of SBFS. When fruit are clustered together in groups of three or more, fruit surfaces in the middle of the cluster are slow to dry and become almost inaccessible to spray droplets as the fruit increase in size. Where necessary, hand thinning to break up fruit clusters will help to reduce the incidence of sooty blotch and flyspeck at harvest.

The primary means of managing sooty blotch and flyspeck is via fungicide applications during July and August. Four or five summer fungicide applications may be needed to control these diseases in wet years, whereas only two or three well-timed applications are needed in dry years.

Fungicides applied to control scab and mildew at petal fall and first cover are usually adequate for protecting apples from flyspeck ascospores. In the northeast, the fungi causing sooty blotch are generally more sensitive to fungicides than is the flyspeck fungus, so flyspeck almost always appears first in orchards

---

with marginal fungicide protection. Summer fungicides timed to control flyspeck will almost always provide adequate control of sooty blotch.

Following discharge of flyspeck ascospores during the 2-3 weeks after petal fall, the risk of flyspeck infection is relatively low until the time when ascospore-initiated infections in hedgerows and woodlots begin producing conidia for secondary spread of the flyspeck fungus. This seems to occur after about 250-280 hours of accumulated wetting after petal fall (AW-PF) on apples.

During this interval from 3 weeks after PF until 250 hours AW-PF, the risk of SBFS infection on apples is relatively low and fungicide coverage can usually be relaxed (provided, of course, that primary scab has been completely controlled). Beginning at 250 hours AW-PF, however, the risk of secondary flyspeck infections gradually increases until harvest.

Research has shown that Topsin M, Sovran, and Flint provide post-infection activity against sooty blotch and flyspeck. Their post-infection activity decreases as the time between infection and fungicide application increases. Although there are still some data gaps with Sovran and Flint, tests completed to date suggest that all three of these fungicides have reasonable activity against flyspeck infections if the fungicides are applied before infections are exposed to 100 hours of accumulated wetting.

Working in North Carolina, Brown and Sutton (1995) showed that sooty blotch and flyspeck appear on fruit only after fruit are exposed to 275-300 hours of accumulated wetting following infection. Thus, it appears that Topsin M, Sovran, or Flint will provide post-infection control of flyspeck and sooty blotch so long as the infections are less than one-third of the way through the incubation period.

When Topsin M, Sovran, or Flint are used for July-August sprays, the period of relaxed fungicide coverage in June and early July can probably be extended until 350 hours AW-PF (250 hours for development of flyspeck conidia plus 100 hours of post-infection activity).

Even in dry years, however, trees should probably be protected with fungicides during the latter half of July because fungicide spray coverage later in the season may be compromised as apple size increases (thereby increasing contact surface areas between adjoining fruit) and as limbs bend down under crop load. Should a dry summer suddenly turn wet in August, SBFS could cause huge losses in orchards that were not protected prior to the rains.

Pre-determining the timing for the last SBFS spray in August or September is impossible because the need for additional sprays during that period is based on the weather. Last year at the Hudson Valley Lab, we recorded nearly 3.5 inches of rain in the first two days of September and then accumulated 270 hours of wetting by September 30.

Growers who did not re-apply a fungicide after the rains of September 1-2 noted that flyspeck seemed to appear overnight at the end of September on fruit that were not yet harvested. The trick to correctly timing the last fungicide spray in 2003 was to correctly guess how many hours of wetting would accumulate after the rains of September 1-2 and before fruit would be harvested. (Remember that 270 hours of wetting are required to complete the incubation period.)

Growers who gambled on a dry or even a "normal" September lost that bet in 2003. Those who applied fungicide during the first week of September (on the assumption that September would be wet) were the winners in 2003. Although an early September spray may be needed in exceptionally wet years, sprays applied during late August and September will not compensate for coverage gaps during July and August.

None of our fungicides can completely eradicate SBFS after infections on fruit are older than 100 hours of accumulated wetting. Therefore, sprays between early July and mid-August remain the most critical timing for controlling SBFS under NY conditions in most years. Earlier and later sprays are needed in wet years, but two or three applications between July 15 and August 15 are almost always essential.

## E-mail Marketing on Our Farm

Source: Dan Copeland of Sweet Berry Farm in Marble Falls, Texas. Dan gave a talk on this at the North American Berry Conference in February, 2005. Reprinted from the New York Berry News, Volume 4, Issue 7, July 15, 2005

Do you have an existing internet/email account? For the purpose of this talk, we are going to assume everyone has an account and knows how to use email. If you do not, chances are that any teenager in your family will be happy to explain how to get your own account and how to use email as soon as possible.

### How do we use email to market the farm?

We normally open the season softly; in other words, production is still on the upward side of the curve. We do not like to advertise much the first few weeks because we are afraid of getting more customers than we have fruit (something we have vowed not to let happen). We can attempt to regulate our initial customer flow by trickling out Season Opening email notifications. As production increases, so does the number of notifications being sent. Once the entire email list has been sent, we will begin additional advertising.

- We notify customers when a new crop is being harvested. Most of our customers seem to need to be reminded when the next crop is ripe.
- Invariably, there will be times in the production cycle of our crops when supply is overshadowing demand. It is important to state that we *never* deviate from the base price of our fruit. Once you have destroyed that base price, customers will always want the reduced rate, even in subsequent years.
- Instead, if we feel that we *must* give some sort of discount to encourage sales, we will do it using coupons or quantity discounts. With the email list, we will notify our customers that NOW appears to be a great time to harvest. We also like to include a coupon – simply a portion of the email that the customer can print out and bring in. The quantity or dollar amount of the coupon varies with the amount of fruit that needs to be harvested. It is important to point out that the coupon always has a “valid” time period (normally just a week to encourage immediate response) and the note

“one per customer.”

We also encourage recipients to forward the email/coupon to all their friends – that is what we want: more pickers! Customers love to send their friends the coupons and by doing so, they are hopefully increasing our customer base. Where this normally bites us in the rear is when a customer prints out a bunch of coupons and hands one to everyone else in the checkout line.

We do not harvest fruit for wholesale, even in times of glut. Instead of spending money on pickers and then trying to find an instant market, we take that money and advertise more. Hopefully this will get more customers out in the time of need and help us in the long run by increasing our customer base.

- We like to let our customers know of important upcoming dates or special events such as when we are set to close and reopen again or remind them of the upcoming disk dog tournament.
- Sweet Berry Farm is closed to the public roughly five months out of the year. While trying not to be a nuisance, we like to send our customers one notice in the off-season just to keep us fresh in their minds.
- Email is good for press releases – you can send out press releases to different forms of media in just a little bit of time. The problem with this use is that the media normally receives tons of email and chances are they might skip over yours or delete it as “Junk Mail.”

### So, what is the big deal about email marketing?

The most important thing to recognize in the use of email is that each letter you send out to your customers is basically free. It takes very little time to send them out and the recipient receives that letter instantly. The Sweet Berry Farm email list has a little over 2400 names on it (I realize this is small). If at 8:00 a.m. Monday morning I decide that a notice needs to go out because the previous weekend was rained out and I have fruit that needs harvesting, I can have 2400+ letters delivered into the hands of my customers by 10:00 a.m. that same day.

Granted, not all the letters will be read that day, not a lot of customers are going to drop what they are doing and head to the farm instantly (a few

will, though) and some of the letters will be deleted as “Junk Mail.” But I normally expect to see a response by the end of the week and for sure by the

coming weekend.

### What is the cost?

The cost of this "direct email" depends on if you slate the \$14.95 (or thereabout) monthly Internet expense to your business or personal account. Let's say that you call it a business expense. I pay roughly \$120 per year for Internet access. If I send out six email notices per year at 2,000 per = 12,000 notices. At \$120 per year, my cost is now one penny per notice. Now, think what that will be when I double or triple the size of my email list. Not to mention that my kids now get to use the Internet for free.

### Developing a list

An email list is no different from any other mailing list. The effectiveness of your email marketing will be determined by the quality of your list. So, how do you get the addresses for your list?

*Voluntarily!* I believe you should only put folks on your list that WANT to be there. At Sweet Berry Farm, we collect addresses several ways. Normally it is just a simple pad of paper that a customer writes their address on. This pad is located at each of the checkout registers, in the store area, and at any booths we may have in various market shows. Sweet Berry Farm also has a website through which folks can join the list. A website is very useful to us, but don't sweat it if you don't already have one. (In fact, I would argue a website's usefulness if you can't develop and maintain it yourself..) As mentioned before, we encourage customers to spread the news about the email list in hopes that their friends will want to get onboard.

### The 'Down Side'

You probably will not be able to develop a list instantly. Therefore, it is going to take a year or two to really begin to utilize email in your marketing plan. The majority of your list will be customers that have already attended your farm. Because of this, your customer base will not vastly increase due to email marketing. You do have to spend a little time typing the names into your address book. And, invariably, you won't be able to read someone's handwriting. I often try to encourage folks to send me an email, then all you have to do is right click on the email and choose 'add sender to address list' (if you use Outlook Express). This year I am going to try to set up an old computer in the store for people to type in the Ohio Fruit ICM New

address  
themselves.

### Suggestions when sending email

My wife says that I need to make the email notices more fancy; I like to keep them plain and simple. Most people are in a hurry and don't want to spend a lot of time on your email. If it is plain and simple, it will also download a lot quicker into the customers' inbox, very important to a lot of folks. This is a matter of personal preference. If at this point you do not know how to send an email – ask that teenager to help you and give them the following suggestions.

- I like to send no more than a hundred at a time, it makes everything go faster. Send the original email to yourself, then be sure to put your customers addresses in the "bcc" field. This means that customers will not be able to see all the other addresses you sent to.
- Compose your email, highlight the body, hit "ctrl c" to copy it, address it, and send it out to some of your list, and then open a new email, hit "ctrl v" to paste the old email into the new one. Now you don't have to retype the entire email. Use a local Internet service provider. Some of the online accounts will not let you send more than a hundred or so emails at a time (they think you are a spammer). Even your virus software will become suspicious if you send a bunch at a time.
- I suggest putting your point in the subject line, for example, "The strawberries are ready!" Some of your customers might delete the email before ever reading it if the subject line is blank. This is especially important if sending press releases to the media. An email plan is only one tool in your marketing handbag. The email program is very useful to us at Sweet Berry Farm, and we think we will be able to cut our marketing costs in half in the coming years through its use.

❖ *Visit the Copelands' website at* <http://www.sweetberryfarm.com/>. This article is reprinted with permission from the conference Proceedings of the North American Bramble Growers.

July 22, 2005

The Johnny Appleseed Outdoor Historical Drama is in its second year of production. Last year nearly 30,000 people from 86 of 88 Ohio counties and 38 of 50 states attended America's newest outdoor drama.

The drama takes place in a 1,600-seat amphitheater at the Johnny Appleseed Historical Center deep in the woodlands of north central Ohio. This beautiful 45-acre site is located in the heart of Johnny Appleseed Forest, where John "Appleseed" Chapman tramped this brave, new land, sharing his faith and his strength.

Playwright Billy Edd Wheeler, who has composed songs for Judy Collins, Kenny Rogers, and Elvis Presley, has created a gripping tale with song, dance, and dialogue you'll long remember.

The site is located approximately halfway between Cleveland and Columbus, just east of I-71. To get there, take I-71 to U.S. Rte. 30 (Exit 176). Follow U.S. Rte. 30 east to St. Rte. 603, and follow it south through Mifflin. The site is 2 miles south of Mifflin, just north of Charles Mill Dam.

The show is open six nights weekly, closed on Mondays. It starts at 8:00 P.M. nightly and runs approximately 2 hours and 15 minutes, including intermission. The drama runs through August.

Ticket rates are as follows:

Ticket Category	Weekend	Week Night
Preferred seating	\$23	\$21
General Admission	\$18	\$16
Seniors (ages 56+)	\$16.25	\$14.50
Children (ages 4-12)	\$9	\$8

For more information visit the website at <<http://www.seejohnnyappleseed.com>> or call 800-642-0388.

### Pest Phenology

Coming Events	Degree Day Accum.

	Base 50°F
Apple maggot 1 <sup>st</sup> oviposition punctures	1021-1495
Codling moth 2 <sup>nd</sup> flight peak	1337-1977
Oriental fruit moth 2 <sup>nd</sup> flight subsides	1379-1771
Apple maggot flight peak	1458-1770
San Jose scale 2 <sup>nd</sup> flight peak	1459-1805
Obliquebanded leafroller 2 <sup>nd</sup> flight begins	1528-1842
Spotted tentiform leafminer 3 <sup>rd</sup> flight begins	1532-1872
Lesser appleworm 2 <sup>nd</sup> flight peak	1554-2292
Oriental fruit moth 3 <sup>rd</sup> flight begins	1613-1901

Revised thanks to *Scaffolds Fruit Journal* (Art Agnello)

### Degree Day Accumulations for Ohio Sites

July 20, 2005

Ohio Location	Degree Day Accumulations Base 50°	
	Actual	Normal
Akron-Canton	1458	1421
Cincinnati	1868	1903
Cleveland	1509	1376
Columbus	1740	1610
Dayton	1613	1671
Kingsville	1338	1263
Mansfield	1410	1395
Norwalk	1536	1380
Piketon	1763	1857
Toledo	1552	1377
Wooster	1548	1313
Youngstown	1323	1273

## Fruit Observations and Trap Reports

### Site: Waterman Lab, Columbus

Dr. Celeste Welty, OSU Extension Entomologist and Gretchen Sutton

<b>Apple:</b> 7/14 to 7/20/05	
Redbanded leafroller	0 down from 3
Spotted tentiform leafminer	802 up from 658
San José scale	19 up from 14
Codling moth (3 trap mean)	2.3 down from 3.0
Lesser appleworm	29 up from 13
Tufted apple budmoth	2 same as last week
Variegated leafroller	0 same as last week
Obliquebanded leafroller	5 up from 3
Apple maggot (sum of 3 traps)	1 same as last week

### Site: East District; Erie and Lorain Counties

Jim Mutchler, IPM Scout/Technician

<b>Apple:</b> 7/12 to 7/19/05	
Codling moth (3 trap mean)	0.6 up from 0.1
Oriental fruit moth	4.4 up from 3.3
Redbanded leafroller	3.28 down from 4.8
San Jose scale	46.1 up from 0.0
Spotted tentiform leafminer	625 up from 324
Lesser appleworm	21.5 up from 15.0
Apple maggot (sum of 3 traps)	2.0 up from 0.0

Beneficials found: lacewings, native lady beetles, orange maggots, brown lacewings

<b>Peach:</b> 7/12 to 7/19/05	
Redbanded leafroller	2.7 down from 3.3
Oriental fruit moth	0.3 down from 0.7
Lesser peachtree borer	1.0 down from 7.7
Peachtree borer	2.0 down from 4.3

Beneficials found: lacewing eggs and adults

### Site: West District: Huron, Ottawa, Richland, and Sandusky Counties

Lowell Kreager, IPM Scout/Technician

<b>Apple:</b> 7/11 to 7/18/05	
Codling moth	0.1 same as last week
Oriental fruit moth	2.3 up from 0.3
Redbanded leafroller	4.4 down from 9.5
San Jose scale	0.0 same as last week
Spotted tentiform leafminer	235 up from 208
Lesser appleworm	5.2 down from 12.7
Apple maggot (sum of 3 traps)	0.0 same as last week

Beneficials found: lacewings, brown lacewings

<b>Peach:</b> 7/11 to 7/18/05	
Redbanded leafroller	0 down from 16.0
Oriental fruit moth	4.1 down from 4.1
Lesser peachtree borer	1.3 down from 3.7
Peachtree borer	0.5 same as last week