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College of Agricultural, Consumer, and Environmental Sciences

Illinois Fruit and Vegetable News

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A newsletter for commercial growers of fruit and vegetable crops

"We are what we repeatedly do. Excellence, then, is not an act, but a habit." Aristotle

Address any questions or comments regarding this newsletter to the individual authors listed after each article or to its editor, Rick Weinzierl, 217-244-2126, weinzier@illinois.edu. The ***Illinois Fruit and Vegetable News*** is available on the web at: http://www.ipm.illinois.edu/ifvn/index.html . To receive email notification of new postings of this newsletter, call or write Rick Weinzierl at the number or email address above.

In this issue ...

Upcoming Programs

- **Orchard twilight meeting. April 22, 2010.** Joe Ringhausen Orchards at 24748 Reddish Road, Fieldon, IL. The meeting will begin at 6:00 p.m. and include discussions led by Elizabeth Wahle, Rick Weinzierl, and Mohammad Babadoost on early season insect and disease management in fruit crops. Traveling west from Fieldon on IL 16, travel just over 1 mile, then turn right (north) on Reddish Road (see Ringhausen Orchard sign on left). Travel just under 2 miles, following the curves of Reddish Road, until you arrive at Ringhausen Orchards on the right. For additional details or questions, contact Elizabeth Wahle at wahle@illinois.edu or 618-692-9434 x-21.
- **Grape grower workshop. May 15, 2010.** Lazy L Grape Ranch, near Mechanicsburg, IL. Brad Taylor, Southern Illinois University, and Elizabeth Wahle, UI Extension, will demonstrate and discuss major practices, including shoot thinning, positioning, cluster thinning, and leaf removal. The meeting will begin at 10:00 a.m., with registration at 9:30 a.m. The vineyard, owned by Brad Lindquist, is located east of Springfield, just south of Mechanicsburg. From I-72, take the Mechanicsburg Exit (#114) into Mechanicsburg; turn left (east) onto W. Main Street, then right onto S. Church Street, which turns into Roby Road. Continue south past Darnell Road and turn left (east) onto Moomey Road. The vineyard will be on the right (south) and visible from the road. Please contact Elizabeth Wahle if you plan to attend (for an accurate lunch count). **Updated information:** Registration fees will be taken at the door starting at 9:30am and will be $30.00 per person for IGGVA members and $50.00 for non-members and will include lunch from 12:00-1:00. For those wishing to join IGGVA, applications will be available. The program will conclude at 3:00 pm. In case of inclement weather, the program will continue inside facilities at the vineyard. For further details, contact Elizabeth Wahle at wahle@illinois.edu or 618-692-9434.
- **Illinois State Horticulture Society Summer Field Day**. **June 10, 2010.** Broom Orchard, which is located just south of Carlinville on the Shipman Road … mark your calendars now, and as details become available, they will be posted in future newsletters.
- **Mississippi Valley Peach Orchard Tour. June 29, 2010.** Bader Farms, 5 miles north of Campbell, MO on Hwy WW. As details become available, they will be posted in future newsletters.

- **International Herb Association Annual Meeting. July 11-15, 2010.** Collinsville, IL. (More details in future issues of this newsletter.)
- **North American Fruit Explorers. August 19-21, 2010.** Best Western Motel/Conference Center, Lafayette, IN. To view the program and registration form, check: http://web.extension.illinois.edu/edwardsvillecenter/foodcrophort3031.html. For additional details or questions: contact Ed Fackler at cefackler@gmail.com or 812-366-3181.
- **2010 Sustainable Agriculture Tours**
    - **May 27, The Business of Vermiculture,** Wilken Farms, Iroquois County
    - **June 18, Feeding Universities Sustainably,** Farmer Brown's Production Company and Mulberry Hill Farm, Jackson County
    - **July 26, Illinois Berries,** J & J Berry Farm, Jersey County
    - **August 13, Romance Tour – Flowers and Wine,** Bright Flower Nursery and Famous Fossil Vineyard & Winery, Jo Daviess County and Stephenson County
    - **September 15, Agritourism – Farm Fresh Fun,** Country Corner, Henry County

  A fee of $20 per person will be charged for each tour, which includes lunch. This year two adults pay $30 when registered together and children under the age of 10 attend free. Registration at least one week in advance is required. Visit http://web.extension.illinois.edu/smallfarm/ag_tours.cfm to register and for more details about each of the tours including a map and agenda. To register by phone, contact Donna Cray at 217-241-4644. For more information, contact Deborah Cavanaugh-Grant (217-968-5512; cvnghgrn@illinois.edu).

Regional Updates

In the southern region (April 16, 2010), I don't think the past week could be described as anything other than perfect. An incredible amount of field work has been done, and the entire landscape has transformed from winter drab to spring green. Field corn will begin to emerge around here any time (and I understand that some fields are up in Calhoun County). Temperatures have been well above average for the past week, really pushing growth. Apricots, plum, Asian pear and cherry fruit set is clearly visible. Peaches are a petal fall and moving towards shuck split. Apples are anywhere from full bloom to petal fall. As I am writing this, the first rain since April 7th is moving into the area, creating perfect conditions for a fire blight infection period. Many have been out ahead of the storm spraying Streptomycin on fire blight susceptible cultivars. Petal-fall would be the targeted first application of Apogee on fire blight susceptible cultivars like Gala, Jonathan, and Golden Delicious, not only to reduce the incidence of fire blight but also suppress growth (saves on pruning later). Target Apogee applications to fire blight susceptible trees in 4th to 6th leaf; keep in mind that trees are most susceptible to fire blight in their 3rd through 6th leaf, and earlier applications may interfere with trees filling allotted space.

Grapes are in the critical control period for fruit infections – prebloom to 2-4 weeks after bloom. A product containing mancozeb is recommended during this time period to control Phomopsis, black rot, downy mildew, and anthracnose; tank-ix with sulfur to pick up powdery mildew. For sulfur sensitive cultivars, switch to a powdery mildew product such Rally (if you have not experienced resistance) or Abound. See the ***Midwest Small fruit and Grape Spray Guide*** for a complete list of options http://www.ag.purdue.edu/hla/Hort/Documents/ID-169-2010.pdf

Everbearing strawberries are in bloom, and June-bearing types are showing good growth. Reminder to keep in the back of your mind that thrips populations may move into the growing area on spring weather fronts in the near future. Be prepared to check not only strawberry blooms, but also bramble blooms for thrips activity. It only takes two per bloom to be at threshold. Blueberries are in bloom and flower set looks good.

Early-planted vegetables such as onions, beets and potatoes are well established, and aside from the micro-burst on April 7th have been growing under near perfect conditions. Horseradish and sweet corn planting is ongoing. Asparagus has been in harvest for two weeks. Be sure to scout for asparagus beetle and its eggs (see photo); the threshold during harvest is 5-10% plants infested or 2% of spears with eggs. For complete control options, see the ***Midwest Vegetable Production Guide for Commercial Growers*** at http://www.btny.purdue.edu/Pubs/ID/ID-56/.

Asparagus beetle adult and eggs (Elizabeth Wahle).

Be sure to check the list of programs at the beginning of this issue for upcoming events. They include the April 22nd twilight meeting at Joe Ringhausen's orchard near Fieldon, the May 15th grape grower workshop at the Lazy L Grape Ranch near Mechanicsburg (see the updated information above), the Illinois State Horticulture Society Summer Field Day on June 10th at Broom Orchard, near Carlinville, and the Mississippi Valley Peach Orchard Tour June 29th at Bader Farms near Campbell, MO.

Elizabeth Wahle (618-692-9434; wahle@illinois.edu)

In the northern region (April 13, 2010), the first half of April saw high temperatures in the high 40s to low 80s and lows in the upper 20s to low 50s and _ to 2 inches of rainfall. Soil moisture is still adequate, and the good recent weather enabled growers to accomplish field work such as plowing. The weather forecast for the next ten days looks good, with day temperatures in the 60s to 70s and night temperatures in the upper 30s to mid 40s.

Training and pruning of non-bearing trees is still going on in some orchards. Pruning of bearing trees is done. Fertilizer application and weed control sprays also are done in most small fruits and tree fruits. Apples are at tight cluster to open cluster, with some early blooming varieties having some pink petals showing up on cluster tips. Peach flower buds have opened, and pears are at tight to open cluster. Grapes remain at bud swell, while strawberry leaves are emerging from the crowns and raspberry shoots are at 1-inch green. In apples, tight-cluster to pink spray programs are underway.

Growers have planted cool season vegetables such as potatoes, radishes, beets, and onions. Leaf lettuce and other cool season vegetable seedlings are ready for planting in some farms. Growers with greenhouses have started pepper and tomato seedlings that should be ready for transplanting in May.

Maurice Ogutu (708-352-0109; Ogutu@illinois.edu)

St Charles Horticulture Research Center Update … (April 15, 2010) The season arrived northern Illinois – dramatically. It's mid-April, and we've seen the 80's four times … and the rain has disappeared. So there are lots of opportunities to get into the field and get work done. Now the real question will be, can we get it done at the Research Center?

Like many who are affiliated with the state, we are going through a fiscal crisis at the University of Illinois. No doubt you've heard the news of changes in the UI Cooperative Extension Service. Departments in the College of ACES are suffering from reduced funding too. How does that affect the field research stations? Let me explain.

While we have not depended on the University for operational funding for many years now, we have been the beneficiary of University support in other ways. First, the two permanent positions at the St Charles Center are both supported by departmental funds. Because horticultural programming moved into the Dept of Crop Sciences last year, that department pays for the salary, wages and benefits of the two permanent employees. One of those positions is currently open, as the Farm Foreman retired in January. Unfortunately, the University instituted a hiring freeze for permanent positions late last year, so the position will remain open for the foreseeable future. We have a strategy for filling the position part-time as a temporary hire, thanks to support from our department head, and that should get us through this season. But the department must weather significant reductions in state funding over the next five years. It is possible that position may not be filled.

We are being affected in other ways as well. State funding for grape research appears to be in jeopardy. This has been an important source of support in recent years at St Charles. Past support has given us the opportunity to develop 2 acres of research vineyards with several different ongoing projects. Loss of funding puts all of that previous investment in a tenuous position. We will probably be okay this year, but it would be sad to see 5 years of investment eliminated just when the best results are beginning to emerge.

Before getting too morose, there ARE research activities this year which are funded and will be carried out. These include both fruit and vegetable work. There are two cover crop studies that will take place on pumpkins. A cooperative project with the food and nutrition group in extension will be responsible for producing two acres of fresh vegetables to educate communities who live in "food deserts" in the city. The Illinois Corn Growers and Monsanto Corporation are supporting this project. An orchard established in 2008 suffered some damage from a huge vole population that established this winter. Efforts will be made to rehabilitate the orchard this season. And several grape projects will push forward this year, with hope for future funding. Cultivar evaluations, controlled crosses for new varieties and several cultural studies are planned. Maybe this season will be better than recent seasons. There's a reason to be hopeful!

Bill Shoemaker (630-584-7254; wshoemak@illinois.edu)

Notes from Chris Doll

(April 16, 2010) When I signed off on the last newsletter, I realized that I had omitted my forecast for a warm period that would make for a fast developing growth pattern. Without the forecast, it happened anyway, and during the last 16 days, high temperatures exceeded 80 degrees 12 times, stayed between 70 and 80 degrees 2 times, and between 60 and 70 degrees 2 times. Both apples and peaches moved from green tip through bloom and petal fall during those 16 days. Development of other tree fruit and small fruit crops has been quite rapid too, with matted row strawberries near full bloom, and grapes shoots 6-10 inches long. Apricot fruits are near _ inch in diameter with a good set.

The nearly full bloom on all apple trees stimulated interest in bloom to petal fall thinning sprays, and locally it was some of the most ideal weather for thinning applications for a 4-8 day period – with warm temperatures and fairly calm conditions. Time will tell how this works this year. Whether or not it was needed in the absence of wild bees also

remains to be seen. There was a lot of competition from a beautiful bloom of dandelions and many other flowering trees and shrubs during the same period. A couple of more reports of significant loss of bees in this area have also been seen, making the importation of pollinator bees a good investment. Time will tell if there are more bees around for the strawberries and other small fruit crops.

It has been a fairly dry April, with only two rain showers that totaled 1.1 inches, and both came before open apple blooms. Some streptomycin was applied along with some Apogee. Some growth was advanced for the best timing of the first Apogee spray (see page19 in the Spray Guide), but favorable weather conditions (for no infections) hopefully will work out.

Northern growers may have a better chance at optimum application time with Apogee, since bloom will be a little later. Another thing that northern growers of Asian pears have a chance at using is a practice called fingering to hand thin the flower clusters beginning at white bud. They break out pretty easily at that time. The characteristic of very high percentage fruit set makes later thinning quite tedious.

The Back-40 trap line has yielded only 2 Oriental Fruit Moths and zero Codling moth. Ren Sirles of Alto Pass just reported catching 12 OFM and 2 CM to date

As the spring moves on, it is time in this area to apply the second half of nitrogen for bearing peach trees, finish the herbicide applications, graft trees where applicable, and perform ringing and scoring treatments to apple trees that need treatment. This past week, I looked at some 15-year old Fuji trees that had a shallow scoring cut with a chain saw last year that did not respond with much of a repeat bloom. The use of Ethrel or NAA sprays later next month might be more appropriate.

Chris Doll

Fruit Production and Pest Management

Notes on Fruit Insects

- Oriental fruit moth flight is well underway as far north as Urbana. Codling moth flight has started in the south, and traps at Urbana have picked up the first moths, though a consistent flight that would constitute a biofix may not be underway here (especially with cooler temperatures since Friday, April 16). I ask that growers who are operating traps send me a note to let me know when flight of these insects started (or starts) at various locations, and I will begin providing updates on degree-day accumulations for representative locations. Page 22 of the ***2010 Midwest Tree Fruit Spray Guide*** (http://www.extension.iastate.edu/Publications/PM1282.pdf) lists timings on a degree-day basis for sprays of various insecticides that target codling moth in apples. If Rimon or Intrepid is used first, these insecticides should be applied a little earlier than other products. Neonicotinoids such as Assail, Calypso, and Clutch might be applied before 250 degree-days after codling moth biofix, and if organophosphates such as Guthion or Imidan are used for first sprays (where populations have not yet developed resistance), timing should be at about 250 degree-days after biofix. For Oriental fruit moth control in peaches, pyrethroids (where resistance is not a problem) or Assail, Altacor, Delegate, Entrust, or Intrepid can be used effectively to protect fruit. Resistance to pyrethroids prevents their effectiveness in some areas, including several orchards in Calhoun County.
- For plum curculio control in apples and peaches, remember that Altacor, Entrust, Delegate, and Rimon (not labeled in peaches) used for codling moth or Oriental fruit moth control will not kill curculio adults or prevent egg-laying scars. Avaunt or Imidan (or Guthion in apples) can be used for this purpose. Pyrethroids control plum curculio in peaches, but their use in apples is discouraged because they kill predaceous mites and often lead to outbreaks of European red mite.
- Grape berry moth flight generally begins around bloom in grapes, and egg hatch begins around 2 weeks later. Effective insecticides for grape berry moth control include Imidan, Danitol, Baythroid/Renounce, Brigade, Intrepid, SpinTor (Entrust), Sevin, Clutch, Altacor, and Delegate (see the ***2010 Midwest Small Fruit and Grape Spray Guide*** at http://www.ag.purdue.edu/hla/Hort/Documents/ID-169-2010.pdf).

- Elizabeth Wahle sent the following picture of overwintered San Jose scales on plums. This insect is an increasing problem in many areas. Where it's too late to contemplate extra-thorough coverage with delayed dormant oils or the addition of Esteem 35WP to oil applications, the next opportunity to bring populations down is when crawlers are active, beginning about 4-5 weeks after bloom. Monitor crawler activity with black electrical tape wrapped sticky-side out around twigs in infested areas, and look for tiny yellow crawlers. Insecticides labeled to control crawlers include Esteem, Assail, Centaur, and Diazinon. Movento is no longer registered for this use.

San Jose scale on plum (Elizabeth Wahle).

- Woolly apple aphids move up from root colonies throughout the season. Although they are especially visible later in the summer, optimal spray timing is about 4 weeks after bloom and again about 14 days later. Diazinon, Endosulfan, and Provado are labeled against woolly apple aphid.

Rick Weinzierl (217-244-2126; weinzier@uiuc.edu)

Vegetable Production and Pest Management

Notes on Vegetable Insects

- Elizabeth Wahle was on the mark with her recommendation to scout for asparagus beetles in asparagus from the time spears emerge through early growth of ferns several weeks from now. Lorsban, Malathion, Pounce (permethrin), and Sevin are effective against this insect.
- For sweet corn growers who planted a variety that is not resistant to Stewart's wilt, scouting for flea beetles as sweet corn emerges is an important management practice, especially in the southern half of the state. See Snook Pataky's article on Stewart's wilt and flea beetles in the January 20, 2010 edition of this newsletter (http://ipm.illinois.edu/ifvn/volume15/frveg1516.html) for details. Effective insecticides for flea beetle control in sweet corn include numerous pyrethroids, Lorsban, Lannate, and Sevin.
- And of course this is the time of year for flea beetles on numerous other crops … broccoli and cabbage, spinach, potatoes, eggplant, tomatoes, and more. In general, the rule of thumb is to control these insects if they are stunting the growth of seedlings or if they are causing excessive cosmetic damage to leafy greens where the foliage is harvested and sold for consumption. Flea beetles are susceptible to Sevin and many pyrethroids …

see the 2010 Midwest Vegetable Production Guide for insecticides labeled on specific vegetable crops (http://www.btny.purdue.edu/Pubs/ID/id-56/).

Rick Weinzierl (217-244-2126); weinzier@uiuc.edu)

Less seriously …

Disaster averted … A couple of weeks ago a man who was driving down a peaceful country road struck a rabbit and killed it. Not just any rabbit, but the Easter Bunny … and early on Easter morning. There it was, cute little ribbon, basket filled with goodies … and dead as a doornail. The man was in shock. To his amazement, a young woman screeched to halt beside him, ran from her car, and sprayed the dead rabbit with something from an aerosol can. In just moments the Easter Bunny stood up on its hind legs, smiled, waved, and hopped a few feet towards the nearby woods. It stopped, waved, then hopped several more yards before stopping and waving again. Hopping and waving, it finally disappeared into the woods. The astonished man walked up to the woman and asked what on earth she had done. Saying nothing, she simply handed him the can. He ignored the big letters with some catchy name and focused immediately on the words below … "Revitalizing hair spray. Gives hair new life and adds permanent wave." Good thing the Easter Bunny can't spell.

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