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Crop conditions

Most crops have come through the winter well, although peaches and grapes have been frozen out in a few spots, especially across the central part of the state. I think we are generally running about normal but it's hard to get a read on where we are in terms of crop development compared with previous years since a few warm days at this time of the year can really bring things along fast. The opposite is also true in that a few cool days can hold crop development back. Peaches are at or just past full bloom and apples are at tight cluster here in Lafayette. Early grapes are at bud break in the south and full swell in Lafayette.

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Cider Contest

We congratulate John Beasley of Beasley's Orchard in Danville, IN on being awarded the top cider maker in the state. John has consistently placed in the top 3 in the 5 years we have held this contest, but this is his first time winning the top prize. The cider contest is held in conjunction with the Indiana Horticultural Congress and continues to be popular with cider makers.

Cider regulations

According to an article in the March 2005 "The Grower", the New York Apple Association is working towards mandatory pasteurization of apple

cider. Like Indiana, New York law currently has a loophole that allows growers to sell untreated cider provided it is sold directly to the consumer. It is this loophole that the NY Apple Association wants closed, and according to one board member "It's putting the whole industry at risk." In 2004, contaminated apple cider was blamed for landing 14 people in the hospital with food borne illness. We all know that food safety regulations are getting more restrictive, not less, but it's anyone's guess how long this loophole will remain open in Indiana, or on a federal level. I haven't heard of any moves to close the "retail exemption" in Indiana but by the same token, I'd be surprised if this rule was still in force 10 years from now. (Hirst)

Happy McApples

How many of you know who is the nation's largest purchaser of apples? Probably not many answered "McDonald's" but last year they sold more than 35 million pounds of apples, according to the Wall Street Journal. These are sold as fresh cut apple slices as an alternative to fries in Happy Meals. (Hirst)

New Blueberry Publication from MSU:

A new publication (E-2928) 'Pocket Guide to IPM Scouting in Highbush Blueberries', compiled and edited by Annemiek Schilder, Rufus Isaacs, Eric Hanson, and Bill Cline is now available from Michigan State University. The 128 page long index card-sized format is handy to take to the field or keep in the pickup. The guide contains disease and insect scouting calendars that are based on blueberry growth stages, not dates, to make the information transferable to different areas. Calendars describe when infections begin or insects are problematic, when symptoms of diseases appear, and when controls might be needed for problems that affect blueberry growers across the Midwest and Northeast.

Disease and insect descriptions and pictures make it easy to identify problems in the field. Other useful information includes pictures of natural enemies, nutrient deficiencies, herbicide damage, and environmental problems. The cost is \$14, plus \$4 for shipping and handling. It can be ordered online at <http://web2.msue.msu.edu/bulletins/mainsearch.cfm>. Type in the keyword blueberries to see all of MSU's blueberry publications. It can also be ordered from the MSU Extension Bulletin office at 517-353-6740. (Bordelon)

New Small Fruit Publication Is Highly Recommended:

The Midwest Small Fruit Pest Management Handbook has been revised and is now available. The handbook features full-color photos of the major disease symptoms and insect pests. Comprehensive Integrated Pest Management (IPM) recommendations are included for control of insects, diseases, and weeds on strawberry, brambles, blueberry, and grapes. There are also chapters on pesticide handling, and nutrient recommendations. The handbook is bargain-priced thanks to grant support to offset production cost. Copies can be obtained through Ohio State University by calling 614-292-1607 or email to pubs@ag.osu.edu or through Purdue's Media Distribution Center at 1-888-EXT-INFO or on the web at <http://www.ces.purdue.edu/extmedia/>. Visa and MasterCard orders are accepted. (Bordelon)

Correction in the 2005 Midwest Commercial Small Fruit and Grape Spray Guide:

We have become aware of a few mistakes in the printed version of the 2005 Midwest Commercial Small Fruit and Grape Spray Guide (ID-169). We make every effort to assure that the updates are correct before we go to press, but occasionally mistakes slip through. This

should be a good reminder to every grower that they should read and follow the label directions instead of depending on guides or advice from neighbors or others.

The corrections are:

- On page 18 under the section Downy Mildew - The Use of Ridomil Gold MZ and Ridomil Copper, we have listed the preharvest interval (PHI) for Ridomil Gold MZ as 42 days when it should have been listed as 66 days. And we listed the PHI for Ridomil Gold Copper as 66 days when it should be 42 days.
- On page 50, Table 8 Fungicide Harvest Restrictions and Restricted - Entry Intervals (REI), the preharvest interval (PHI) for mancozeb on grapes is listed as 42 days. This is not correct. The PHI for mancozeb on grapes is still 66 days.
- Finally, on page 63 under Sinbar 80 WP, the rate should read 1-2 lb, not 1-22 lb.

We regret that these mistakes happened and will do our best to avoid this in the future. If you find any other mistakes, please let us know.

Another problem we have become aware of is that some of the copies were not assembled correctly by the printer and may be missing certain pages. If you received a copy that is not complete, let us know and we will send you a replacement. (Bordelon)

Risk of Fungicide Drift from Soybeans to Apples:

With the potential for soybean rust showing up in the region this year, apple growers should be aware that there is

potential for drift damage on certain varieties from some of the strobilurin fungicides that may be used on soybeans. In particular, the azoxystrobin products Quadris and Abound are known to cause phytotoxicity to Macintosh-related apples varieties. These products may be used on soybeans. Growers should take time to visit their neighbors and discuss this potential problem. (Bordelon)

Strobi availability

Azoxystrobin, sold as Quadris in the field crop market, and trifloxystrobin, a component of Stratego, are both likely to be used against soybean rust should the disease develop this year. If a major epidemic develops, this will put a lot of strain on the fungicide delivery system. Various people have told me that the chemical companies and dealers are not going to forget about their regular customers as they try to take care of all the soybean farmers who may want product. Still, I think fruit growers might want to talk to their dealers about supply, and if pre-ordering is appropriate, may want to do so. I think the fruit growers probably have a big advantage over soybean growers, in that they have a pretty good idea of how much material they need. Right now, it's all very uncertain for the soybean growers, because no one can say whether we will have a rust problem or not, especially in the northern states. (Gregory Shaner, Professor, Botany and Plant Pathology, Purdue Univ.)

Search for New Plant Pathologist

As many of you know, Paul Pecknold has announced his retirement after 32 years at Purdue. The good news is that the administration has decided to fill this position, with an extension emphasis on fruit and landscape trees. The search process is moving along - 3 candidates have been interviewed and the search committee will meet later this week to develop a recommendation. (Hirst)

Petting zoo sanitation

Cases of E. coli infection following visits to petting zoos or animal exhibits have been widely reported recently. In Florida, at least 22 people, almost all children, fell seriously ill after visiting one of three fairs in the past two months. State health officials are investigating 35 more cases. Last Autumn, 15 children developed the life-threatening kidney ailment in North Carolina, and a petting zoo exhibit at the state fair in October was determined to be the likely source. In all, 108 people, more than half of them small children, were affected by E. coli traced to the fair, though most had far milder symptoms than the 15. I'm mentioning this not to say that petting zoos are hazardous places for kids, but that there is some level of risk. As with any aspect of your farm operation, you should do all you can to be aware of the risks and to reduce and manage the risk. Talk to your local health inspector to make sure you are in compliance with all regulations. The bad publicity and ramifications of a child becoming ill after visiting your petting zoo are pretty obvious, so do all you can to reduce the risk of this occurring. (Hirst)

Pest Patrol for Fruit and Vegetable Growers

Rats, flies and other vermin. Centuries ago rats struck fear into the hearts of mankind because contact with them could lead to death. Well, we're past the medieval scourge of the Black Death aren't we? Flies are only a nuisance in this day and age, aren't they? Deer, geese, ducks ... isn't the only real concern for a grower the potential crop losses to these pests? Simply put: no. You don't have to look any farther than the nearest newspaper or web news page to see stories about the bird flu and the latest petting zoo outbreak to realize that vermin, insects, fowl, and animals all

still have the potential to carry microorganisms that can lead to human illness. Time and again, wild animals including rodents and insects have been documented to carry E. coli 0157:H7 and other human pathogens.

Three words sum up the approach to reducing your risk of contamination from pests, large and small: restriction, exclusion, and trash/garbage management. Starting with the field, the best practice as defined by the Good Agricultural Practices (GAPs) program is to restrict access as much as reasonably possible. Using fences and other active deterrents were practical will help you minimize your risk. Remember that our goal is always minimizing risk, not eliminating it.

Also, consider the water you are using for irrigation and spraying. If it's an open surface, restrict access by geese and other waterfowl as much as possible. Also test the reservoir quarterly and consider some form of water treatment if you detect fecal coliforms or E. coli.

In the packing facility, pest control is that much more important since this is the often the last place produce is handled before reaching the consumer. Start outside and remove trash and/or culling piles from the building's perimeter. As far as rodents and insects are concerned, junk equipment and garbage piles are the best motels and fast food the country has to offer (outside of New York City). Effective trash and garbage management will minimize the potential for attracting the pests that can cause you the most trouble.

In the packing shed is where you can successfully practice exclusion. You are ahead of the game if you can minimize openings in the walls, floor and ceilings

of you packing shed and use screening and doors. Regardless of how open your shed is, you can reduce the presence of rodents in and around your facility by using traps located on either side inside and outside doorways, including garage doors. Rodents like to move close to the wall along the floor and readily enter baited stations located tightly against the wall approximately every 20 feet within the building.

Poison is not needed to capture and remove rodents and creates an unnecessary risk. If you undergo a third party audit, most auditors would significantly reduce your score and some would consider an automatic failure if they found poison inside the packing shed, even if it's within the bait station. Be sure to number and map your bait stations so you can keep track of them and more easily record when you monitor them, especially if you expect to undergo third party auditing.

Insect traps are only needed if you have a consistent, significant bug problem. If you do use something like zappers or pheromone traps, remember that they work because they attract the insects. Place them away from where the produce is held prior to entering the packinghouse and away from the packing line so the insects are drawn away from those areas. Also, check and clean them out frequently, so they don't become a potential source of contamination.

Each operation is unique and requires some creative thinking to address pest problems sufficiently. This year we have the Ohio and Indiana Specialty Crop Food Safety Initiative offering growers a variety of tools to address pests and other food safety issues. The Initiative is presented in partnership with the United States Department of Agriculture's Risk Management Agency.

Ohio and Indiana fruit and vegetable growers may contact Mid American Ag. and Hort. Services (MMAHS) at 614-246-8286 (voice), 614-246-8686 (fax) ormaahs@ofbf.org or visit www.midamservices.org and click on "projects" for more information on this initiative. Materials that provide additional information on this topic and free on-farm food safety consultations are available by contacting MAAHS. (Shari L. Plimpton, Ohio and Indiana Specialty Crop Food Safety Initiative)

Starting a Specialty Food Business in Indiana

The Agricultural Economics Department and the Food Science Department at Purdue University, and the Southeast Indiana Small Business Development Center are co-sponsoring the bi-annual workshop titled, "Introduction to Starting a Specialty Food Business in Indiana" on Friday, April 22nd, 2005 at the Farm Bureau Building in Indianapolis, Indiana. Topics discussed in the workshop range from business planning and marketing food products to packaging and food safety. More information is available at: <http://www.foodsci.purdue.edu/outreach/cafe> If you would like a hard copy of the brochure, please contact Maria Marshall, mimarsha@purdue.edu or De Bush at djbush@purdue.edu.

Exploring Opportunities in Specialty Markets

The Purdue Small Farms and Sustainable Ag Team are sponsoring three workshops this spring and summer, titled "Exploring Opportunities in Specialty Markets". The first workshop is in Ft. Wayne April 15; Noblesville June 10; and Charlestown August 5. This one-day workshop offers insights into trends, market requirements and marketing tools that are helpful in accessing specialty markets. Breakout sessions

will focus on particular specialty markets. Catch the energy and enthusiasm for marketing specialty products. A brochure and registration form is available at: <http://www.ces.purdue.edu/anr/documents/specialtymarketsfly-erapril-aug52005.pdf>

For more information, contact Pat Sheahan, sheahanp@purdue.edu, phone 765-494-4310

Apple Diseases:

Tight cluster to pink is a time for maximum disease control efforts. During this period primary scab spores often reach their peak; powdery mildew infection is occurring on new growth; cedar apple rust is discharging spores with each rain; and fire blight is building, ready to be carried to opening apple and pear blossoms. It's not a pretty picture!

1. *Apple scab*: The potential for severe scab infection is ALWAYS high. The amount of scab is directly dependent on the frequency AND DURATION of spring rainfall. If we have a wet April, scab pressure will be high, if it turns dry, scab pressure will be low, spray accordingly.

2. *Rust*: The pink stage of apple growth generally coincides with the time rust spores begin to infect apple foliage and fruit. If rust is a chronic problem consider the use of a sterol-inhibiting fungicide such as Nova or Rubigan.

3. *Powdery mildew*: If mildew has been a chronic problem in certain blocks (Jonathan, Rome, Ida Red) the above mentioned sterol-inhibiting fungicides are also excellent in helping to control mildew.

4. *Fire Blight*: Cool spring temperatures help prevent a rapid increase in the fire blight population; warm spring temperatures can cause very sudden, dramatic increases in the fire blight population. Here's hoping for a cool spring.

Apple Scab: The most important time of year for scab control is from green tip to petal fall. If you don't control scab during this period it's an uphill struggle the remainder of the season. Be sure sprayers are properly calibrated; thoroughly read the label of all pesticides you will be applying; use sufficient water to provide good coverage; choose calm, good drying conditions for spraying (Good luck on this suggestion); prune trees so they have an open canopy allowing for good spray penetration; and maintain a tight schedule if wet weather persists during the primary scab period.

Brown Rot Of Stone Fruits: Management of brown rot began last year after harvest...with the removal of all fruit, mummies and blighted twigs. It continues this year at pink with early season fungicide sprays. We fortunately have an abundance of fungicides for use in control of brown rot. See ID-168, "2005 Indiana Commercial Tree Fruit Spray Guide", for a complete listing of suggested fungicides. (Pecknold)

Upcoming Meetings:

April 22	Workshop, "Starting a Specialty Food Business in Indiana". See article in this issue of FFF.
June 10	Workshop, "Exploring Opportunities in Specialty Markets". See article in this issue of FFF.
June 30 – July 1	Indiana Horticultural Society summer meeting. More details to come.
August 5	Workshop, "Exploring Opportunities in Specialty Markets". See article in this issue of FFF.

**FACTS FOR FANCY FRUIT
SUBSCRIPTION NOTICE FOR 2005**

Facts for Fancy Fruit is a newsletter for commercial and/or advanced amateur fruit growers. It provides timely information on pest control and production practices that should be of interest to all growers. The information is not intended for home fruit growers unless those growers wish to follow commercial practices. All growers or interested persons are welcome to subscribe, however.

At least 14 issues will be published during 2005, bi-weekly during the growing season and monthly otherwise. The subscription price of \$15.00 includes only the basic costs of printing and mailing at first class rates. The newsletter is also available free of charge electronically through the World Wide Web at <http://www.hort.purdue.edu/fff/fff.html> or by e-mail. If you have e-mail and would like a copy sent electronically, send your e-mail address to hirst@hort.purdue.edu and we will include you on the list, or you can subscribe yourself through the web at <http://www.hort.purdue.edu/fff/fff.html>.

If you wish to receive the printed version of the newsletter in 2005, please fill out the form below and send it to the Department of Horticulture, along with a check for \$15.00 (tax included) **made out to Purdue University**.

We hope that you will benefit from the information contained in the newsletter. We welcome your comments and suggestions.

Peter M. Hirst

Please send me "Facts for Fancy Fruit" for the 2005 season. Enclosed is my check for \$15.00 (tax included). Make checks payable to PURDUE UNIVERSITY.

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