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FFF01-07
June 7, 2001

Crop Conditions: The past two weeks have brought rain and cool temperatures across the state. This extended rainy weather could lead to disease outbreaks in many crops. Growers should stay on top of their spray program. Strawberry harvest is winding down. Cooler temperatures are helping fruit quality, but some sunshine is needed for color and sugar development. Frequent rains are likely to increase disease pressure, especially for fruit rots. The recent cool weather will certainly have reduced the potential for fruit size in apples this season but provided a good thinning job was achieved, fruit size should still be reasonable. Over the last few weeks, hail has affected a number of orchards, with the damage ranging from some slight fruit damage to almost complete crop loss. We are also seeing some fireblight showing up in a number of orchards.

Federal Assistance for Apple Growers: A number of growers have been wondering where their share of the $100 million is. This was approved to compensate growers for market losses associated with imported, unfairly priced Chinese apple juice concentrate. The deadline, originally April 13, was pushed back until May 4. Since then the FSA has had to calculate how much production nationally qualified for this assistance and divide this into the $100 million. From this they will come up with a value per pound of qualifying production. My guess is that it will work out to be around 1.5 cents per pound and maybe as high as 2 cents per pound (60-80 cents per bushel). According to the FSA, checks should be sent out in mid-late June. (Hirst)

More Reports of Fireblight: We continue to hear reports of fireblight from both homeowners and commercial growers. The majority of reports continue to be from those areas south of Indianapolis. Obviously, we had some major infections periods that resulted in extreme blossom blight. I don't doubt that a significant contributing factor for much of the blight we are seeing were the unusually high temperatures (80 & 90's) which occurred shortly after bloom. The high temperatures did much to help infections 'take hold' and resulted in a massive build up of the fireblight bacteria. See the last edition of FFF for recommended controls and see below for recommendations on pruning out fireblight. (Pecknold)

Fireblight and Ugly Stubs: A major concern right now is how to properly prune out fireblight infected tissue. The following is taken from an article by the late Dr. Paul Steiner on managing fire blight: "An aggressive fire blight management program requires that all infections, regardless of their apparent insignificance in location on a tree or time of year, be removed quickly as soon as symptoms develop. Note that I say "as soon as symptoms develop" and not "as soon as you find it" or "as soon as the number of new strikes seem to slow down". This is because the advantage of reducing inoculum potential and having an effect on this year's epidemic passes quickly. The late removal of blighted shoots and limbs is, in effect, little more than revenge because the bacteria they release have already been redispersed many times in the orchard.

As a general rule, I suggest that if you can remove all of the blight showing within two days after it begins to appear, do it. If it will require much longer, it may be best to let nature take its course and concentrate your efforts on cutting for salvage where infections threaten to enter the main tree stem or occur in the tops of the trees. The cutting effort also goes much faster if

additional time for tool sterilization between cuts is not needed. In our work, we have found the bacteria in the internal bark tissues of limbs 3 to 9 feet ahead of any visible symptom. Note, too, that even where pruning tools and the bark surfaces where cuts are to be made are *both* thoroughly sterilized, small cankers still develop around the cutting wound in a large number of cases. Where removal cuts are made in the traditional fashion of pruning back to the next healthy branch union, many small cankers will be missed during the dormant pruning effort and will provide inoculum for the next year's epidemic.

All cutting to remove fire blight should be done following the "ugly stub" procedure. Here, blighted shoots and limbs are cut 8 to 12 inches or more below any visible symptoms (same as in traditional recommendations), but leaving a naked stub in wood that is at least 2 years old and approximately 4 to 5 inches short of the next branch union or spur. The inevitable cankers that will form on many of these cuts are then in a position so that they can be easily removed during the dormant period when it is too cold for the bacteria to produce a new canker. Finding such "ugly stubs" in the winter is made easier if, at the time of cutting, the stubs are spray painted with bright orange paint. This two-step cutting procedure is designed to eliminate cankers from the orchard and, thus, reducing the inoculum potential and the risks for early orchard trees colonization in the following season. Remember that, in years when fire blight is not severe and only a few trees are involved, you can afford to be more severe in your cutting operations. This means that whole limbs or trees can be removed without having a significant effect on the current season's crop while having a major impact on how much inoculum might be available in subsequent seasons."

Note: as noted above Dr. Steiner presents evidence that disinfecting pruning tools is not needed because cankers will still form at the base of cuts when pruners are disinfected. However, being conservative and from Indiana, I would still recommend disinfecting pruners, ESPECIALLY when pruning out fireblight in WET weather. (Pecknold)

Further Information on Fireblight: The late Dr. Paul Steiner, of the University of Maryland, made enormous contributions to our understanding of fireblight and posted some excellent articles about fire blight on the World Wide Web at http://www.caf.wvu.edu/kearneysville/wvufarm10.html. I highly recommend you visit this web site and make these articles part of your permanent bookmarks. (Pecknold)

Apple Diseases, What To Do: Was it me that said this was going to be a 'light' year for apple diseases? I'm sure it wasn't me that said that; I would never be that foolish. Must have been Peter, or maybe it was Rick. Anyway, now is the time growers need to be walking their orchards looking for symptoms of apple scab, fire blight, powdery mildew, and rust. When looking for diseases select those blocks that are most disease prone. Ida red, Jonathan, and Romes are "good" trees to inspect for disease doings; they are all highly susceptible to scab, blight, mildew and rust. If you do see symptoms of any of the above mentioned diseases we suggest the following: **Apple scab** - the safest bet is to apply Rubigan or Nova in combination with a FULL rate of captan, OR, use one of the new strobilurin fungicides, Sovran or Flint. **b) Fireblight** – see above and last edition of FFF **c) Powdery mildew** - maintain mildewcide sprays until terminal growth stops. **d) Rust** - relax and enjoy the colorful display of orange spots on leaves and/or green depressions on fruit…. no further infection from rust will occur this year, therefore rust is one disease you don't have to worry about any longer. (Pecknold)

Grape Pest Management: Just like Paul, I thought this was going to be a "light" disease year due to the dry April and May. What was I thinking?! Should have known it wouldn't last. The recent rainy weather has been ideal for development of fungal diseases. And it's happening just at the critical time for disease development….bloom and immediate post-bloom. Growers should be sure to keep disease control their top priority right now. Black rot is probably the biggest concern. Annemiek Schilder, grape pathologist at Michigan State, reported in a recent issue of CAT Alert the results of some spray trials last year. In her study good control of black rot was achieved under high diseased pressure with one pre-bloom and two post-bloom sprays, or two post-bloom sprays only, of Nova at 5 oz/acre. Black rot incidence was 80% in the untreated control plots. Phomopsis is also a major concern right now. Infection of the flower cluster stem (rachis) can lead to significant fruit rot near harvest. Mancozeb or captan is recommended for control of Phomopsis. Despite the dry conditions early in the season, I've had some reports of severe Phomopsis outbreaks. I've also heard that Japanese beetles have already started to emerge in southwest Indiana. Don't forget to monitor the Grape Berry Moth traps. They were abundant last year and it's likely we'll see plenty of pressure this season. (Bordelon)

Shoot Positioning in Grapes: Shoot positioning in grapes is done to distribute the leaf area uniformly over the available trellis space and to make the vine conform to the intended training system. Varieties differ in their need for shoot position and vigor has a significant affect. Some varieties such Vignoles and Chancellor tend to have relatively short shoots that stand up well on their own, so shoot positioning is seldom needed. Other varieties such as Traminette, Foch and all the American

varieties produce horizontally growing shoots that tend to run along the top of the trellis and cause significant shading of the fruit and renewal zone. Shoot positioning is very important with these varieties.

For high cordon systems, shoots are positioned downward on both sides of the row to improve sunlight exposure to the fruit and renewal zone. The first positioning can usually be done a week or two before bloom. Wait a week if significant shoot breakage occurs. Repeat the positioning about 2 weeks after the first round. If you wait too long, the tendrils will begin to attach, and significant shoot breakage can occur. Timing is very important to reduce shoot breakage and accomplish reduced shading in the renewal zone in time to improve fruitfulness. Fruit bud development begins about bloom so shading during this time can reduce fruitfulness for next year.

With vertically shoot-positioned (VSP) training, the shoots are vertically trained upright above the cordon (or cane). Catch wires are used to support the shoots which are manual tucked into position. Shoot positioning on VSP is done as shoot length warrants. The first set of catch wires is typically at 8 to 12" above the cordon. When the majority of shoots are at or above this point, the first round of positioning is done. If positioning is delayed too long the cordon (or cane) may rotate and shoots will be pointing down or to the side. It is difficult to turn shoots back up to a vertical plane once they've fallen. The same problem can occur if the first set of catch wires is placed too high above the cordon. Some growers use movable catch wires to help position shoots. The wires are released from their holders and kept beneath the cordon during the winter. Pairs of wires, one on each side of trellis posts, are brought up to a fixed position above the cordon, bringing the shoots into a vertical plane in the process. Various shoot "taping" or tying systems are commercially available to attach shoots to the trellis wires if necessary. (Bordelon)

European Red Mites: I have received no reports of problems with European red mites yet this year. This is not surprising since the weather has been so cool and wet for several weeks. Although it is probably too late for most of you, this would have been a good year to not use a preventive miticide. If by chance you have not used a miticide yet, I would certainly not apply one until I saw problems. If it ever stops raining and warms up, be sure to resume sampling for mites regularly. Remember that the thresholds increase as the season progresses. The threshold until June 15 is 2.5 mites per leaf. Use a threshold of 5 mites per leaf in the second half of June and 7.5 mites per leaf later in the season. (Foster)

Apple Insects: Despite the cool weather, damage from codling moth and plum curculio can still be extensive. In my untreated plots, I am seeing lots of damage from both insects. Don't relax your insect control efforts because of the weather. The cool temperatures might allow you to stretch out the intervals between sprays, but since most of you tank mix insecticides with your fungicides, you probably won't want to change. In general, insect pest pressure has been light this year, although that could change as fast as the weather. (Foster)

Indiana Horticultural Society Summer Meeting: As mentioned in the past issue of FFF, the summer meeting of the Indiana Hort. Society will be hosted by Sarah and Rick Brown of The Apple Works, in Trafalgar Indiana. A roundtable discussion will be held on the evening of Tuesday, June 26 followed by a full day of activities on Wednesday, June 27

If you are interested in seeing one of the best managed orchards in the state, then join us for this tour. Sarah and her husband Rick have also extensively researched the cider issue and have installed a UV pasteurizer, which will be demonstrated and explained. There are many interesting things to see at The Apple Works, and I really doubt that anyone will leave without a few good ideas. We look forward to seeing you there. Questions? Call Peter Hirst or Dick Hayden.

Meeting Agenda

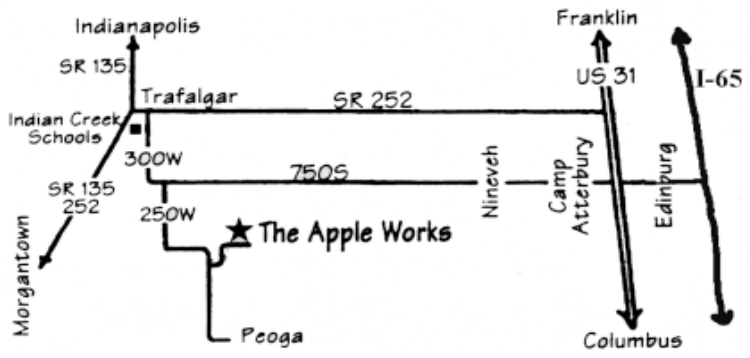
<u>Tuesday, June 26, 2001</u>

6:00 pm	Peter, Bruce, and Dick will be cooking Brats and hotdogs on the grill for those who would like to arrive a bit early. (There will be a small charge to help cover costs.)
7:00 pm	The Round Table Discussion will be held in the sales room. Bring your concerns and items for discussion that might be of interest to the growers. Special treat this evening will be slides and discussion of the New Zealand tour led by Peter Hirst back in February.
9:00 pm	Adjourn to return to motels (a partial list of motels in the area is presented in this issue).

Wednesday June 27 2001

8:00 a.m.	Registration and Coffee and Donuts
9:00 a.m.	Introduction of Exhibitors and allied industry members.
9:10 a.m.	Tour of the facilities, market and kitchen.
10:00 a.m.	Tour of the orchards close to the market. Discussion will include growth regulator (Apogee, Provide) demonstrations; Thinning results; Rootstocks including M7, M.111, M.106 and Phytophthora, M.27 on trellis.
12:00 noon	Lunch on the grounds. Cost $6. per person. $3. for children 11 or under.
1:00 p.m.	Indiana Horticultural Society Business meeting
1:45 p.m.	Cider making and discussion of UV pasteurization
3:00 p.m.	Orchard tour to continue to see thinning results; M.7 and M.111 plantings and an extensive Bud.9 planting. Blackberry and strawberry production will be discussed. Greenhouses for bedding plant production will be visited
5:00 p.m.	Adjourn to travel home. Have a safe journey.

Located 7 minutes south of Trafalgar, Indiana



Travel Notes

The Apple Works is located in extreme southern Johnson County, and "seven minutes" south of the town of Trafalgar. Trafalgar is located on SR 135 straight south of Indianapolis. SR 135 could be considered to be an extension of Meridian Street in Marion county.

In Trafalgar there is a three way stop at a blinker light just north of the Indian Creek Schools. This is at the Jct. of SR 135 and eastbound SR 252. Turn east on 252, then immediately turn south on CR 300 W. Follow the signs to the Apple Works. The traditional pink "Orchard Tour" signs will be posted as well.

From the east, you can either follow SR 252 to Trafalgar or if coming on the interstate (I-65) from either north or south, you can exit at Edinburgh, cross US 31 and go west through the north side of Camp Atterbury and the Atterbury Fish and Wildlife Area, through Ninevah and on CR 750 South to 250 West. Watch for signs as you approach 250 West.

From the west or southwest, take SR 37 to SR 252 at Martinsville, go east through Morgantown to Trafalgar. From the northwest, either go around by way of I-65 or take SR 37 to Mooresville, then take CR 144 to old Bargersville, then SR 135 on to Trafalgar. (Strangely, there is a gap in SR 144 between Mooresville and Old Bargersville, but CR 144 is a good road and begins where SR 144 ends at Mooresville.)

Motel Information

There are motels along I-65 at Franklin and at Edinburgh. There are also motels at Columbus. If you wish a holiday and antique or craft shopping atmosphere, there are several motels at Nashville as well. Here is a partial listing of motels in the Franklin/Edinburgh areas, and in Nashville and Martinsville. There are motels in nearby cities that are not listed.

No endorsement of listed motels is intended, and this is not a complete listing.

Taylorville (I-65 Exit 76)

Hampton Inn, 12161 N. US 31, Edinburgh, IN 46124 (Just N. of exit 76)
812-526-5100 or 800-Hampton (800-426-7866)

Holiday Inn Express, 11711 N. US 31, Edinburgh, IN 46124 (Just N. of Exit 76)
812-526-9899 or 800-465-4329

Best Western, 11780 N. US 31, Edinburgh, IN 46124 (Just N. of Exit 76)
812-526-9883 or 800-272-6232

Comfort Inn, 10330 US 31 Taylorsville, IN 47280 (Just S of Exit 76A)
812-526-9747

Franklin (I-65 Exit 90)

Carlton Lodge, 2122 Holiday Lane, Franklin, IN 46131
317-736-0480

Days Inn, 2180 East King street, Franklin, IN 46131
317-736-8000

Hilltop Motel (small family owned), US 31 South, Edinburgh, IN 46124
812-526-6555

Howard Johnson Express Inn, 176 Lovers Lane, Franklin, IN 46131
317-738-4448

Quality Inn & Suites, 150 Lovers Lane, Franklin, IN 46131
317-346-6444

Super 8 Motel, Lovers Lane, Franklin, IN 46131
317-738-0888

Martinsville

Comfort Inn Martinsville, Jct SR 37 and Ohio St., Martinsville
765-342-1842

Super 8 Motel, Jct. SR 37 and Ohio St., Martinsville
765-349-2222

Nashville

Brown County Inn, Jct. SR 46 & SR 135, Nashville
812-988-2291

Hotel Nashville, 245 Jefferson St., Nashville
812-988-8400

Comfort Inn, SR 46, just west of SR 135, Nashville
812-988-6118

The Seasons Lodge, SR 46, East of SR 135, Nashville
812-988-2284

Upcoming Meetings:

June 7 – Blueberry Growers of Indiana summer meeting. Pertic's Blueberry Plantation, LaPaz. Meet for a farm tour at 4:00 pm. Potluck dinner at 5:00 pm (main course and drinks provided, please bring a dish to share). Business meeting at 6:00 pm. Contact Melvin Van Kley at 219-956-3687, Rick and Cindy Pertic at 219-784-3331 or Bruce Bordelon.

June 26-27 - Indiana Horticultural Society Summer Meeting. The Apple Works, Trafalgar, IN. Details are in this issue of Facts for Fancy Fruit.

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