Fruit ICM News

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June 30: Ohio Fruit Growers Society Summer Tour and Meeting, Patterson Fruit Farm, Chesterland. For more information, contact John Wargowsky at (614) 249-2424, or e-mail at jwargows@ofbf.org.

Dacthal 75-WP Strawberry Herbicide is Back

Source: Richard C. Funt, Extension Small Fruit Specialist, Ohio State University, Columbus

Dacthal (DPCA) 75% wettable powder is a herbicide used for new plantings and established strawberry fields for pre-emergence control of annual grasses and some broadleaf weeds, such as crabgrass, yellow and green foxtail, field pansy, goosegrass, and dodder. Recently US EPA granted a national label for Dacthal 75 WP to Amvac Corporation. Prior to that time Dacthal was no longer being manufactured by the original company. The new label is nearly the same as the old label, which is described in the Ohio Small Fruit and Grape Spray Guide 2001, Bulletin 506B2.
Dacthal can be applied at 8 to 12 pounds per acre at:

- Pre-plant or Post-plant
- After straw removal (Spring)
- Renovation
- Late Summer/early Fall

Apply Dacthal to weed free, cultivated soil and apply within two to three days after cultivation. Do not incorporate more than 2 inches into the soil. Rainfall, irrigation (to ½ inch) or light tillage can be effective. Dacthal herbicide can be active for 6 to 10 weeks depending on soil type, rate of application, and rainfall. Dacthal can be an effective herbicide in late summer (August) for specific weeds. Amvac has only 24-pound bags available. The expected grower price will be in the $15 per pound range. The price will vary with dealer location. More information can be obtained at [http://www.amvac-chemical.com](http://www.amvac-chemical.com). Click onto specimen label.

### 24 C Labels Available on the Web

*Source: Joanne Kick-Raack, Coordinator, Pesticide Education Programs, The Ohio State University*

We have just posted the revised list of 24 C's from ODA on our Pesticide Program website [http://www.ag.ohio-state.edu/~pested/24c.html](http://www.ag.ohio-state.edu/~pested/24c.html). Most are now downloadable so that agents and growers can access them from the web. Hopefully this will help get labels into the applicators' hands.

### Lorsban 50-W Labeled for Postbloom Trunk Applications for Dogwood Borer Control

*Source: The Illinois Fruit and Vegetable News, Vol. 7, No. 4, March 28, 2001*

In response to standards imposed by the Food Quality Protection Act, the US EPA last year canceled registrations for standard, postbloom air-blast applications of Lorsban to apples. This action was taken to reduce chlorpyrifos residues on fruit at harvest, and it is in effect this season. Growers are NOT to use existing supplies under the old label guidelines. **Application to foliage and fruit after bloom is prohibited, period.**

A small change in this story occurred earlier this month. The EPA granted a postbloom label for Lorsban 50-W for application to apple tree trunks only for borer control; this use is allowed only east of the Rocky Mountains. Sprays are to be applied by handgun or shielded sprayer, with sprays directed to the lower 4 feet of the trunk (and NOT on fruit). For growers, this means that Lorsban may be used as a trunk spray (3 lbs. formulated product per 100 gal finished spray) for dogwood borer control, up to 2 applications per season (at least 28 days before harvest). The label points out that residues will be monitored over the next two crop seasons, and if levels on fruit exceed 0.01 parts per million, the EPA will "discuss further mitigation." **In other words, if you want to keep this label that allows trunk sprays, DO NOT use Lorsban to treat fruit.**
Tree-Fruit Technical Advisory Council Formed

Source: http://www.fruitgrowersnews.com

The formation of the Tree-Fruit Technical Advisory Council (Tree-TAC) has scientific experts set to consult with USDA, the Food and Drug Administration (FDA), and other governmental agencies on deciduous tree fruit import issues. The council will address issues of importance to the fruit industry, such as the relaxed import guidelines governing produce from China and Korea.

Technical experts associated with the U.S. deciduous tree fruit industry have announced the formation of an advisory council to address sanitary and phytosanitary issues affecting imports of apples, pears, sweet cherries, and other similar tree fruits. The council will consult with the USDA's Animal and Plant Health Inspection Service (APHIS), the FDA, and other federal agencies responsible for safeguarding U.S. agricultural resources and consumers against the introduction of harmful pests and microbial contaminants.

The ongoing liberalization of international trade in agriculture is increasing the potential pathways of introduction of foreign agricultural pests and plant diseases, said Tree-TAC Chairman Jim McFerson of the Washington State Tree Fruit Research Commission. "Given the economic harm these imported pests can cause American fruit growers, we must develop a more deliberative means of consulting with our government's quarantine officials to ensure appropriate safeguards are in place to protect against their introduction," said McFerson.

Congress Requests USDA to Withdraw Korean Fuji Import Proposal

Source: U.S. Apple Association via John Wargowsky, Ohio Fruit Growers Society

Thirty-seven Representatives and twenty-one Senators called on the U.S. Department of Agriculture (USDA) to withdrawal a proposed rule that would relax import requirements for Fuji apples from the Republic of Korea, by removing current safeguards designed to prevent the introduction of harmful tree-fruit pests present in that country. Reps. Doc Hastings (R-Wash.) and Maurice Hinchey (D-N.Y.) garnered the support of 35 fellow members of the House of Representatives, while Sens. Larry Craig (R-Idaho) and Carl Levin (D-Mich.) were joined by 19 of their Senate colleagues, on letters to Agriculture Secretary Ann Veneman.

"We are very concerned about the Department's proposed rule to facilitate importation of Fuji variety apples from the Republic of Korea into the United States," wrote the members of Congress.

"We fully support expanded international trade, but only if it is done fairly in a manner that does not prejudice our growers. The proposed rule would provide an international competitor with phytosanitary concessions that endanger U.S. apple growers and exacerbate an already unlevel playing field faced by U.S. apple exports in Korea."

The rule, which was proposed in April 2000, would give South Korea even greater access to U.S. markets without granting this country's apple growers reciprocal access to Korea's markets. Despite more than 15 years of negotiations to address Korea's ban on U.S. apples due to alleged phytosanitary
concerns, USDA has made little progress in removing Korea's apple import ban. Even if U.S. apples garnered market access to Korea, they would face a prohibitive import duty of 46.5 percent.

Meanwhile, Korean apples were granted initial access to the U.S. market in 1994, and may enter the U.S. duty free. "Increased imports of Korean Fuji apples will only exacerbate the poor economic conditions already being suffered by our nation's apple growers," said U.S. Apple Association (USApple) President and CEO Kraig R. Naasz, whose group is spearheading efforts to keep Korean Fuji apples out of U.S. markets. "Our Congressional allies have responded favorably to our concerns and have taken swift action to address the pleas of apple growers for fair trade."

USDA received 323 comments critical of its proposed rule. Most cited concerns about the potential introduction of harmful foreign pests, while others also noted that the proposed rule does nothing to prevent Korea from importing Chinese Fuji apples and re-exporting them to the U.S. under a Korean label. No comments were submitted in support of USDA’s proposal.

"We are deeply concerned that this proposal could lead to Chinese Fuji apples entering the United States illegally," said Naasz. "China, the world's largest apple producing country, should not be given access to the U.S. market through the back door, particularly given the recent ruling that China illegally dumped apple-juice concentrate in our market."

America's apple growers have lost an estimated $760 million in just three years due to unfairly priced imports, adverse weather conditions, continuing retail consolidation, and rising regulatory costs among other factors, according to USDA statistics. USApple members from across the country urged their members of Congress to cosign the House and Senate Korean Fuji letters to Agricultural Secretary Veneman during their visits to Capitol Hill in late February, and through countless telephone calls and letters to the nation's capital.

Fungicide Strategies for Controlling Apple Scab and Mildew in 2001

Source: Dave Rosenberger, Plant Pathology, Highland, Cornell University

Selecting and scheduling fungicides for apples involves many considerations. No single program can be devised that is appropriate for all apple orchards. The information that follows may prove useful as apple growers and consultants plan for the coming apple spray season. Note that throughout the following discussion, I have assumed that SI fungicides are still fully effective for controlling apple scab and powdery mildew in the orchards under consideration. Many of the suggested strategies must be modified if SI-resistant strains predominate in the orchard. Strategies for orchards with SI-resistance will not be covered in this article.

Fungicide classes referenced in this article include:

- **Contact fungicides**: copper sprays (for use at green tip), mancozeb fungicides (Dithane, Penncozeb), Polyram, captan. Polyram is not a mancozeb fungicide. However, for the sake of simplicity, any subsequent references to 'mancozeb' in this paper should be interpreted as including Dithane, Penncozeb, and Polyram.
- **SI scab fungicides**: Rubigan, Nova, Procure
- **Strobilurin fungicides**: Sovran, Flint
- **Benzimidazoles**: Topsin M and Benlate.

**Decision #1**: Copper sprays?

Copper sprays are strongly recommended in orchards where fire blight was present in either of the previous two seasons. Sprays should be applied between silver tip and quarter-inch green. The objective of this copper application is to create a copper residue on the tree that will release copper ions during rains and reduce populations of the fire blight bacterium coming from overwintering cankers. Copper sprays are of questionable value in orchards that have not had fire blight during the past two years since these orchards would theoretically have neither blight cankers nor resident populations of the fire blight bacterium. However, growers with highly susceptible cultivars and rootstocks may still wish to apply copper as insurance against blight infections that may have gone unnoticed the previous year.

In some seasons, copper sprays can cause russetting on apple fruit. This usually occurs when sprays are applied after quarter-inch green and/or there is little or no rainfall between the time of application and the time when trees reach open cluster. If too much copper residue is still present at open cluster, then rains occurring after open cluster may redistribute the copper residue to the clusters and injure the tissue that will later form the apple fruit.

If copper sprays are applied after quarter-inch green, then rates should be reduced to the minimum label rate. Conversely, if the long-range weather forecast at the time of copper application suggests that heavy rainfall is expected within the next week, then the high end of the labeled rate should be used to increase the probability that some copper residue will still be present after the rain. In either case, copper rates per acre should be adjusted for tree-row volume to prevent overdosing small trees.

A copper spray, even at the low label rate, will provide scab protection equivalent to that provided by a mancozeb fungicide applied at 1 lb of formulated material per 100 gallons. Copper sprays will not act as scab eradicants.

**Decision #2**: Contact fungicide program vs. planned use of SI's or strobilurins at tight cluster

Excellent scab control can be achieved by using only mancozeb or captan sprays. Rates as low as 2-3 lb of formulated mancozeb fungicides/A or 2-3 lb of captan 50W/A can provide excellent scab control if the fungicides are applied just ahead of predicted rains. Higher rates are needed in very large and/or poorly pruned trees or when fungicides are applied on a weekly schedule irrespective of rain events.

Programs involving only protectant fungicides (e.g., copper, mancozeb, Polyram, captan) can be inexpensive, especially in dry years, but they are unforgiving because they offer no post-infection or anti-sporulant activity. As a result, lapses in spray coverage will almost always result in at least a few scabby fruit. Coverage lapses may occur due to stretched spray intervals, wash-off during heavy rains, or spraying in windy conditions. Furthermore, if summer weather remains cool and wet as it did in 1998 and 2000, then any scab that becomes established during April, May, or early June will continue to spread during summer and will increase the potential for late-season fruit infections that develop into pinpoint scab during storage. In wet years, attempting to control scab with only contact fungicides can be both frustrating and expensive.
All growers should begin the season by using one or two applications of contact fungicides because there is usually no reason to pay for an expensive fungicide prior to tight cluster. Growers planning to use only contact fungicides through the entire scab season will need to be more conservative in covering ahead of predicted infection periods than growers who plan to use SI or strobilurin fungicides during the peak scab season. Those planning to switch to SI's or strobilurins can afford more risk because the SI and strobilurin fungicides will cover minor lapses in coverage that may occur with prebloom applications of contact fungicides.

**Decision #3:** Knowing when to switch to SI's or strobilurins (the "power" fungicides)

The key to minimizing scab control costs is knowing exactly when to switch from a mancozeb or captan program to the extra protection provided by SI's or strobilurins. In a dry year when contact fungicides can easily be applied ahead of infection periods, contact fungicides alone may suffice for all sprays up to petal fall, especially in blocks where mildew is a minimal problem. However, in years with heavy rains and extended wetting periods, using SI's or strobilurins beginning at tight cluster may be the most cost-effective approach.

Regardless of the initial strategy chosen, it is absolutely essential that the first SI or strobilurin spray be applied BEFORE there are any visible scab lesions in the orchard. Therefore, anytime that protection with contact fungicides becomes suspect, either an SI or strobilurin should be applied within 12 days of the infection period in question. For example, if heavy rains (more than 1.5 inches) at half-inch green remove mancozeb residues and continued wind and rain prevent re-spraying ahead of the next infection period, then the best option is an SI or strobilurin application within 72-96 hours, counting from the time that the mancozeb protection lapsed. Unfortunately, cold fronts usually follow lengthy rain periods, and those cold fronts frequently bring winds that prevent good spray coverage.

One must sometimes choose between getting an SI or strobilurin applied within 96 hours under poor spray conditions or waiting beyond 96 hours for good spray conditions. I would usually opt for the latter choice when facing that decision. During the prebloom period, SI's and strobilurins applied within 10-12 days of the infection period should provide near-perfect scab control if they are applied so as to achieve near-perfect coverage. In fact, in one of my field trials last year, scab control was better when these fungicides were applied 10-12 days after infection rather than 5-8 days after infection. This means that one need not rush out to apply SI or strobilurin fungicides immediately if one has already missed the 96-hour window of post-infection activity following an infection. I believe that it is better to wait for good spray conditions during the following week than to attempt spraying in less than optimal conditions. For missed infection periods during or after bloom, one cannot afford to delay applications more than 7-8 days because higher temperatures will result in a shorter scab incubation period.

The suggestion that scab can be arrested even 10-12 days after prebloom infection periods is not meant to imply that prebloom contact sprays can be routinely omitted. Over-dependence on the post-infection and pre-symptom activity of SI's and strobilurins almost certainly will result in both occasional control failures and in rapid selection for fungicide-resistant isolates. Instead, the post-infection and pre-symptom activity of SI's and strobilurins should be viewed as a safety net for situations where protection by contact fungicides might be compromised. Knowing that such a safety net exists allows one to take a few more risks in timing prebloom contact sprays. But those taking the risks must also recognize that the safety net will be fully effective only if the SI or strobilurin program is initiated before scab symptoms become visible. That latter point cannot be over-emphasized. Strobilurins and SI's are much less effective when applied after scab is already visible on leaves because the visible lesions raise inoculum levels to the point where complete control becomes improbable.
Peach Cultivar Trial 1996 to 2000 Final Report

Source: Richard C. Funt, OSU Dept. of Horticulture and Crop Science, Mark C. Schmittgen, OSU Waterman Laboratory, OSU, Columbus

Introduction

Consumer demand for Ohio-grown peaches has been strong due to the exceptional flavor and farm market appeal. There is a strong desire among commercial growers and home gardeners to plant peach trees for the distinct local flavor that may not be obtained elsewhere. In 2000, Ohio growers produced 4.259 million pounds of peaches and received $0.468 per pound, which was 12% higher than in 1998. The average U.S. farm price in 2000 was $0.196 per pound (6). However, successful yellow freestone peach production in Ohio has been affected by low winter temperatures, which damage shoots and trunks, and by spring frosts during bloom. Severe winter temperatures in the early 1980's discouraged new plantings.

Growers have learned to select orchard sites where winter temperatures are modified, as near Lake Erie or hillsides in southern Ohio. The Redhaven peach cultivar has been listed in the 1975 and 1987 Ohio surveys as the most planted peach cultivar in Ohio. Research at Ohio State University has centered around tree survival and late blooming cultivars (4).

Cultivar Descriptions (1)

Jerseydawn [Solo x (Jerseyland x Mayflower) = NJ246]. Jerseydawn was introduced in 1984 at the New Jersey Agricultural Experiment Station by S.A. Mehlenbacher, L.F. Hough, and C.H. Bailey. It has 40 to 70% red blush on a dull yellow ground color and is semi-freestone. Flowers are large and pink. It blooms 1 to 3 days after Elberta. The leaves and fruit are resistant to bacterial spot. In 1996, Jerseydawn was described in Massachusetts as a very popular, early ripening fruit with good size, excellent flavor, and about 20% had split pits (5).

Redhaven (Halehaven x Kalhaven). Redhaven was introduced in 1940 by Stanley Johnson at the Michigan Agricultural Experiment Station. It has round, medium-sized fruit, with red to deep red skin color. It is a firm, good quality fruit which ships very well. The trees are very productive, nearly always requiring fruit thinning, and have a chilling requirement of 950 hours. Redhaven, the most widely planted peach cultivar in Ohio during the cold winters of the 1980's, survived well, but yields were considered to be low (4). The average date of full bloom is April 19. It blooms before Reliance in central Ohio (4).

Beekman's origin and performance elsewhere is not well known. It is listed as ripening in mid-August with good color and firmness, large size, good winter hardiness, but is somewhat susceptible to bacterial spot.

Som-Mor (Chance seedling originated in Woodvine, VA as plant patent 6828 in 1989). The fruit, large with 75% red blush over yellow ground color, is firm and freestone. It ripens with and is similar to Rio Oso Gem. The buds have above average cold hardiness and frost tolerance. It is somewhat brown rot tolerant.

Methods
Four peach (Prunus persica L. Batsch) cultivars on standard rootstocks were planted in a well drained silt loam soil at the Ohio State University (OSU) Waterman Laboratory in Columbus, Ohio. In order of ripening, five tree (five replicates) each of Jerseydawn, Redhaven, Beekman and Som-Mor were planted in 1993. Additional Redhaven trees were planted at the end of the rows as border trees. All fruit are considered to be yellow flesh and semi-freestone to freestone types.

Pre-plant applications of potassium were applied. Trees were auger planted in a silt loam soil. The trees were dormant pruned immediately after planting and each year thereafter. Trees were summer pruned on or about August 1 in each year from 1996. Nitrogen was applied each year, according to Cahoon (2). In January 1994, trees were subjected to -23°F and showed some internal damage. All survived and grew rapidly after pruning and receiving nitrogen fertilizer in 1994. The trees produced their first crop in 1995 and data were collected each year through 2000 when the plots were terminated. A few trees had only one or two limbs separate from the trunk in 1996 which could have been due to the 1994 cold and a large crop in 1996. Trees were not irrigated except during the 1999 drought which began in April and was the most prolonged drought since 1988. On August 10 and 17, 1999 the entire plot was irrigated with a total of 3.7 inches of water.

Fruits were hand-thinned at the hard pit stage each year as needed. Fruits were harvested at the firm ripe stage. Dropped fruit were not weighed or counted. Standard pesticide sprays as recommended were applied to reduce insects, diseases and weeds (3). In general, fruits were not greatly affected by pests, hail, birds, or severe weather after 1994. Following warm winters, the springs of 1998, 1999, and 2000 had blooms 14 to 16 days earlier than previous trials (4). Blooms were not damaged by frost.

Results

Jerseydawn trees had the highest average number of fruit for the six years of testing (Table 1). It had larger fruit and was earlier in ripening than Redhaven, particularly in the last three years of the trial.

Redhaven produced more fruit and total yield per tree than Beekman or Som-Mor (Table 1). It had the smallest fruit size of all cultivars throughout the trial period. However, it had more fruit per tree than Beekman or Som-Mor.

In the last three years, Beekman had the largest fruit. Its fruit ripened as Redhaven harvest ended (Table 1). Som-Mor had the lowest number of fruit per tree, and the lowest yield of all cultivars. In general, the fruit color (30 to 60% red blush) of Som-Mor was lower than that of any other cultivar (data not shown). However, allowing the fruit to ripen on the tree after final fruit swell provided more yellow background color rather than a green background.

Discussion

Jerseydawn has performed very well in Columbus under favorable weather conditions. The yield of Jerseydawn compares to that of Reliance, but has a larger fruit size (4). It deserves to be considered as a peach of good yield and good fruit size which ripens before Redhaven for the Columbus area. However, the average total six year yields of Redhaven were slightly below those of Jerseydawn in this trial. It should be noted that Redhaven trees showed poor shoot growth in March 1999, were affected by severe summer drought, and have a tendency to have more fruit per tree than other cultivars. This could have affected the overall performance of Redhaven in this trial. Redhaven remains an excellent cultivar for yield, size and skin color (4).

Beekman and Som-Mor did not perform as well as the other cultivars. Beekman could be considered for
home gardens for fruit ripening after Redhaven. Som-Mor does not perform well for the home garden.

Conclusions

Jerseydawn and Redhaven peach cultivars on standard rootstocks show promise in the Columbus area under warm winter and spring temperatures. Beekman could be an attractive good quality peach for home gardens. Som-Mor should not be considered for either commercial or home production.

References


Table 1. Average total pounds and number of fruit per tree and pounds per fruit for six years (1995-2000) and last three years (1998-2000), average fruit harvest and last harvest date of four peach cultivars on standard rootstocks planted in 1993, Waterman Laboratory, Columbus 1995 - 2000.

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*Average harvest date for 1995 to 2000. From 1998 to 2000 bloom and harvest dates were earlier than previous 10 to 15 years.

*To convert to pounds per acre with 16' x 22' spacing, multiply pounds per tree times 123 trees per acre.

President Bush Signs Ergonomics Resolution

Source: John Wargowsky, Ohio Fruit Growers Society

On March 20, President Bush signed Senate Joint Resolution 6, disapproving the Ergonomic Protection Standard finalized by the Occupational Safety and Health Administration in November 2000. Congress passed S.J. Res. 6 under the provisions of the Congressional Review Act (CRA), which confers upon
Congress the ability to invalidate agency rulemakings by passing a Joint Resolution of Disapproval. Farm Bureau supported the passage of S.J. Res. 6, and remains concerned about any future regulatory actions by OSHA to regulate ergonomics in the workplace. While the CRA specifically prohibits agencies from re-proposing substantially the regulation again, OSHA will be free to address the problem in a more reasonable way that better addresses the concerns of the regulated community.

Apple Crop Loss Assistance Program

Source: U.S. Apple Association via John Wargowsky, Ohio Fruit Growers Society

The U.S. Department of Agriculture (USDA), on March 20, published broad regulations in the Federal Register that will guide implementation of the $38 million crop loss assistance payment program for U.S. apple growers.

The regulation’s highlights follow:

1. The funds will be made available until expended to apple producers for quality losses to the 1999 and 2000 crops due to fireblight or weather related disasters, including but not limited to hurricane or hail damage.
2. Payments will be made regardless of whether the crop was harvested and without the per person or gross income limitations in effect for all other crops. However, payments are likely to be pro-rated based on the number of producers who apply and the level of their losses.
3. Payments may not be issued if the producer received compensation for the same quality loss under any other federal program, other than the Federal Crop Insurance Program.
4. All 2000 crop claims will be addressed under the apple crop loss assistance program first; however, if it appears that an individual producer could have received greater compensation under the general crop disaster program, then the difference may be paid.

Due to the complex nature of the crop loss assistance payment program, USDA is still formulating program specifics and indicated the sign-up period is not likely to begin for several weeks. For a copy of the regulation as published in the March 21, Federal Register, please visit:

http://a257.g.akamaitech.net/7/257/2422/14mar20010800/frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2001_register&docid=01-6987-filed.pdf"

Ohio Uniform Food Safety Code

Source: John Wargowsky, Ohio Fruit Growers Society

The following web address to the Cuyahoga County Board of Health provides a good executive summary of the new Ohio Uniform Food Safety Code.

http://www.ccbh.net/news/EXECUTIVE%20SUMMARY%202.htm

The next web address provides complete information on the laws and rules pertaining to the new Ohio
Uniform Food Safety Code. It also provides minutes of Retail Food Safety Advisory Council meetings. This council had significant influence on writing the rules of this program and will continue to be an influential advisory group as these rules are implemented and changed in the future.

http://www.state.oh.us/agr/FoodSafetyrfsac.html

**Disease Management for Plums and Prunes**

*Source: Dave Rosenberger, Plant Pathology, Highland, Cornell University*

Black knot is a destructive disease on susceptible varieties of plums and prunes (and in recent years on cherry). The disease is caused by the fungus *Apiosporina morbosa* and attacks only the woody tissues of the tree. Black knot develops slowly. Initial infections typically occur on new shoot growth during periods of rainfall that exceed six hours when temperatures range from 55 to 75°F. Susceptible twigs may become infected shortly after bud break when shoots are elongating rapidly. The first symptoms are usually evident by autumn as an olive-green swelling of the young woody tissue. Black knot develops rapidly the following summer to form the characteristic dark and warty knot. Knots vary in length from as small as one inch to nearly a foot and may or may not completely encircle the branch. The vascular tissue becomes restricted in infected branches, ultimately leading to the death of the branch.

Managing the disease requires removal of wild plum, prune, and cherry seedlings along fence rows, woodlots, and the orchard perimeter. Wild hosts infected with black knot are easy to spot if scouting is done before bud break. Binoculars may be needed to scan high twigs and branches of black cherry trees (*Prunus serotina*), as these trees can grow to more than 50 ft. Black knots should be pruned from infected trees within the orchard during the dormant season. Pruning cuts should be made at least 3 to 4 inches below the margin of the knot and infected twigs and branches should be removed from the orchard and buried or burned. Fungicides should be applied from white bud through shuck split; however, chemical treatment is most likely to be effective only if pruning and sanitation has been practiced. The most effective fungicide for black knot control is Bravo. Bravo's use is permitted under FIFRA Section 2(ee) and has been approved by the NY-DEC (NY users must have a copy of the DEC approval at time of application). Bravo is not labeled on plums after shuck split.

**Degree Day Accumulations for Selected Ohio Sites January 1, 2000 to date indicated**

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**Phenology**

<table>
<thead>
<tr>
<th>Coming Events</th>
<th>Range of Degree Day Accumulations</th>
<th>Base 43 F</th>
<th>Base 50 F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pear psylla adults active</td>
<td></td>
<td>2-121</td>
<td>0-49</td>
</tr>
<tr>
<td>Pear psylla 1st oviposition</td>
<td></td>
<td>25-147</td>
<td>1-72</td>
</tr>
<tr>
<td>Redbanded leafroller 1st catch</td>
<td></td>
<td>32-480</td>
<td>5-251</td>
</tr>
<tr>
<td>Tarnished plant bug active</td>
<td></td>
<td>71-536</td>
<td>34-299</td>
</tr>
<tr>
<td>Spotted tentiform leafminer 1st adult catch</td>
<td></td>
<td>73-433</td>
<td>17-251</td>
</tr>
<tr>
<td>Rosy apple aphid nymphs present - 1st egg hatch</td>
<td></td>
<td>91-291</td>
<td>45-148</td>
</tr>
</tbody>
</table>

**Thanks to Scaffolds Fruit Journal (Art Agnello)**

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Keith L. Smith, Associate Vice President for Ag. Adm. and Director, OSU Extension.

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