

# Newsletter Extension



# **Fruit ICM News**

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## Calendar

July 8: Eighth Annual Horticulture Field Night, OSU Piketon Research Centers, 1864 Shyville Road, Piketon, OH. (East from Rte. 23 & 32 intersection, just off Rte. 32.) View more than 500 research & demonstration plots and 18 different fruit and vegetable projects from 5:00 pm to 9 pm. Ask the experts. No admission charge. Open to the public; supper for everyone. For more information contact Brad Bergefurd, Extension Agent, at 1-800-297-2072, or e-mail him at bergefurd.1@osu.edu.

July 27-28: Ohio Berry Tour, Central Ohio. Learn more about growing & marketing berries. This drive yourself tour begins on Thursday at 2:30 pm at Rhoads Farm Market on SR 56 east of Circleville. Then head northwest to Circle S Farms located west of Grove City on London-Groveport Road. The tour offers dinner at Circle S Farm on Thursday evening, along with discussions with Dr. Dick Funt and Dr. Mike Ellis of OSU. Friday's tour begins at 9:00 AM at Schacht Farm Market on Shannon Road in Canal Winchester, and also includes stops at Doran's Farm Market on Babbitt Road outside of New Albany and Jacquemine Farms on Hyland-Croy Road near Plain City. Cost of the tour is \$15 per person including dinner Thursday evening. For those not participating in the dinner meeting, the cost is \$5 per person. Contact Berry Coordinator Sandy Kuhn at (800) 297-2027 or kuhn.37@osu.edu for a registration form (or print it from our website (above). No on-site registrations!

August 3: OVPGA & Ohio Fruit Growers Society Young Grower Tour, in northeast Ohio, 8:30 a.m. to 7:30 p.m. This bus tour provides a broad variety of fruit and vegetable operations that use different marketing strategies. Tour is designed for growers 40 years of age and younger, and others are welcome

if interested. Contact John Wargowsky at (614) 249-2424 or <a href="mailto:jwargows@ofbf.org">jwargows@ofbf.org</a> for more information.

### **Pesticide News**

Source: Dr. Celeste Welty, OSU Extension Entomologist

Pyramite registration has been expanded to include grapes and stone fruit (peaches, nectarines, cherries, plums, prunes, apricots, as well as nut trees). It has a re-entry interval of 12 hours and a pre-harvest interval of 7 days on grapes, peach, nectarine, plums, prunes, nuts, pears; 25 days on apples. For now, its use on cherries and apricots is restricted to post-harvest use (the "pre-harvest" interval is 300 days).

Pyramite 60WP has been registered since 1997 for use on apples and pears for mite and pyslla control. Pyramite controls European red mite at a rate of 4.4 to 6.6 oz/A, controls grape leafhoppers and pear rust mite at 6.6 to 13.2 oz/A, and controls pear psylla and two-spotted spider mite at 8.8 to 13.2 oz/A.

## Honeycrisp: the Good, the Bad, and the Ugly

Source: Doreen York, Healthy Fruit Volume 8, Number 14, University of Massachusetts

During the annual International Dwarf Tree Association Summer Tour, a group of Honeycrisp "experts" were convened in a grower's orchard next to a large planting of young Honeycrisp. There has been a lot of hype about this new apple, so an attempt was made to be pretty blunt about its potential to make inroads into the market as well as be a profitable gem for growers. Included in the discussion were: David Bedford, University of Minnesota Honeycrisp breeder; Chris Watkins, Cornell University post-harvest physiologist; Susan Brown, Cornell University fruit breeder; Paul Wooley of E.C. Marketing; and several growers from as far away as Minnesota, Wisconsin, and Michigan who have experience with Honeycrisp.

After much discussion, it was unanimous that Honeycrisp has the potential to do "Good" for growers in traditional McIntosh country. But, Susan Brown cautioned, it has some characteristics that are not so desirable -- she says the "Bad" and the "Ugly". In a nutshell, here is how Honeycrisp stacks up in her eyes. (And the others were pretty much in agreement!)

**The Good:** Clearly, Honeycrisp has excellent texture and flavor when picked at the right maturity. Both consumers and growers acclaim its "explosively crisp" eating quality, and mention it in the same breath as the highly desirable and good-eating Gala and Fuji. Plus it keeps remarkably well in "plain-Jane" air cold storage.

**The Bad:** Unfortunately, there has been a lot of variability observed in Honeycrisp's fruit appearance and, in some cases, eating quality. For example, Honeycrisp are supposed to be a blush-red apple, although they have been reported to be striped too. Sometimes Honeycrisp fruit is washed-out in appearance, and usually these do not eat as well. This is more likely to happen when the tree is under stress with too heavy a crop load. Speaking of stress, it was advised to make sure Honeycrisp grow rapidly during the early establishment years. Otherwise, once they slow down, they may not be inclined to grow vigorously again. (Honeycrisp is inherently a weak grower -- does irrigation sound like a good

idea???)

And the Ugly: Here things get even worse, as Honeycrisp storage issues remain a serious bugaboo. In particular, they are susceptible to soft and ribbon scald and bitter pit. (Although at least one grower claims calcium sprays easily rectify the problem.) Also, the best storage environment and temperature regimen remains to be worked out. Fortunately, there is some active research addressing these serious storage problems.

All of the Honeycrisp experts agreed the apple deserves serious grower trial, but before going too gungho and planting large acreages, growers may want to wait until some of the "bad" and "ugly" characteristics of Honeycrisp are better understood and can be more easily managed.

## **Ohio Weather Station Climatological Data**

Source: http://mcc.sws.uiuc.edu/Summary/Ohio.html

#### **Station Choices in Ohio**

Akron-Canton Regional Airport

Ashland

Ashtabula

Barnesville

Bellefontaine

Bowling Green Wastewater Treatment Plant

**Bucyrus Sewage Plant** 

Cadiz

Canfield

Celina

Centerburg

Chardon

Chilo Meldahl L&D

Chippewa Lake

Cincinnati Lunken Airport

Circleville

Cleveland-Hopkins Airport

Columbus Valley Crossing

Columbus Airport

Coshocton Water Pollution Control Plant

Coshocton Agricultural Research Station

Danville

Dayton MCD

Dayton Airport

Defiance

Delaware

Dorset

Eaton

Elyria

Findlay Airport

Findlay WPCC

Franklin

Fredericktown

Fremont Water Works

Gallipolis

Greenville Sewage Plant

Hillsboro

Hiram

Howtville

Irwin

Kenton

Lancaster

Lima WWTP

London

Mansfield Airport

Mansfield

Marietta WWTP

Marion

Marysville

McConnelsville

Millport

Mineral Ridge Water Works

Montpelier

Napoleon

Newark Water Works

New Lexington

New Philadelphia

Norwalk WWTP

Oberlin

Painesville

Pandora

**Paulding** 

Philo

Portsmouth Sciotoville

Put-in-Bay

Ripley Experimental Farm

Sandusky

Steubenville

Tiffin

Toledo Express Airport

Toledo Blade

Upper Sandusky

Urbana WWTP

Van Wert

Warren

Washington Court House

Wauseon Water Plant

Waverly

Westerville

Wilmington

Wooster Experiment Station

Xenia

Youngstown Airport Zanesville Airport

Midwestern Climate Center, Champaign IL

Last Modified: January 3, 2000

Each of these weather stations' data banks contain monthly average temperatures and total precipitation. Also are dates of extreme temperature and precipitation events, some going back for more than 100 years. The degree day summaries can be used by fruit growers to establish biofixes when insect populations are monitored with pheromone traps. By choosing a site closest to you, you can more accurately determine expected accumulations of degree days.

For example, at the Norwalk site, we would expect an accumulation of 676 degree days (base 50) in the month of July. Historically, the average daily temperature will only range 1 degree change during July. If you divide the 676 degree days by 31 days, we can expect 21.8 accumulated degree days for any day during the month. How can we apply this knowledge to fruit farming? If we catch second generation codling moth, we know that control measures are best directed toward hatching eggs. Dr. Celeste Welty suggests the first spray at 250 degree days after the second generation's sustained flight. In this example, it would be about 11 days later.

### **Fruit Observations**

#### Insect Key

AM: Apple maggot CM: Codling moth DWB: Dogwood borer

LPTB: Lesser peachtree borer OBLR: Oblique banded leafroller

OFM: Oriental fruit moth PC: Plum curculio PTB: Peachtree borer RBLR: Redbanded leafroller

SJS: San Jose scale
STLM: Spotted tentiform leafminer
TABM: Tufted apple budmoth
VLR: Variegated leafroller

Site: Waterman Lab, Columbus (6/29-7/5)

Source: Dr. Celeste Welty, OSU Extension Entomologist

Traps used: STLM=wing traps, SJS=Pherocom-V, Others=Multipher-1® traps

**Apple** Peach

RBLR: 1 (down from 3) OFM: 13 (up from 6)
STLM: 189 (up from 87) LPTB: 0 (down from 1.5)
DWB: 1.5 (down from 2.5) PTB: 7 (up from 4.5)

SJS: 0 (unchanged)

CM: 4.0 (up from 3.7)
OBLR: 0 (unchanged)
TABM: 0 (down from 2)
VLR: 0 (down from 1)
AM: 0.3 (down from 1)

#### Site: East District: Erie & Lorain Counties

Source: Jim Mutchler, IPM Scout

Traps Used: STLM=wing traps, SJS=Pherocom-V, Others=Multipher® traps

**Apple** Peach

RBLR: 6.4 (down from 21.1) OFM: 6.0 (down from 7.3)
CM: 2.3 (down from 5.3) RBLR: 4.0 (down from 29.3)
SJS: 0 (unchanged) LPTB: 29 (up from 26.3)
PTB: 6.0 (down from 7)

Other pests: green apple aphid, Japanese beetle, fire blight, scab, white apple leafhopper

**Beneficials at work:** lacewing eggs, larvae, & adults, orange maggots, lady beetles, *Stethorus punctum*, banded thrips

#### Site: West District; Huron, Ottawa, & Sandusky

Source: Gene Horner, IPM Scout

Traps Used: STLM=wing traps, SJS=Pherocon-V, Others=Multipher® traps

**Apple** Peach

RBLR: 18 (down from 38.5)

SJS: 0.0 (unchanged)

CM: 1.6 (down from 2.6)

CM: 1.5 (down from 19)

PTB: 2.8 (down from 6.5)

Other pests: green apple aphid, lilac borer, potato leafhopper, Japanese beetle, green peach aphid

Beneficials at work: Lacewing eggs & adults, banded thrips, lady beetles

## Northern Ohio Apple Scab Activity - SkyBit Product

SkyBit based on observations: July 3, 4; possible infection & damage Based on Forecasts: July 9, 10; possible infection & damage

North Central Ohio Spectrum Technologies Orchard Monitors for Apple Scab

## Northern Ohio Fire Blight Activity - SkyBit Product

SkyBit based observations: July 3, 4; possible infection and damage **Based on Forecasts: July 9-15; possible infection & damage** 

## Northern Ohio Sooty Blotch - SkyBit Product

SkyBit based observations: July 4, 5; possible infection and damage **Based on Forecasts: July 6-15; possible infection & damage** 

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

	Actual DD A July 5	ccumulations , 2000	Forecasted Degree Day Accumulations July 12, 2000				
Location	Base 43° F	Base 50° F	Base 43° F	Normal	Base 50° F	Normal	
Akron - Canton	1831	1126	2038	1912	1283	1232	
Cincinnati	2262	1472	2490	2495	1652	1686	
Cleveland	1835	1145	2032	1858	1294	1195	
Columbus	2223	1448	2433	2150	1610	1418	
Dayton	2164	1392	2379	2202	1559	1470	
Mansfield	1832	1136	2029	1889	1286	1215	
Norwalk	1911	1212	2107	1852	1361	1200	
Toledo	1889	1172	2087	1845	1322	1196	
Wooster	1932	1207	1207 2121 1805 1		1348	1141	
Youngstown	1764	1063	1950	1805	1201	1106	

### Phenology

	Range of Degree Day Accumulations			
Coming Events	Base 43° F	Base 50° F		

Apple maggot 1 <sup>st</sup> oviposition	1566-2200	1001-1575	
Codling moth 2 <sup>nd</sup> flight peak	1587-3103	1061-2212	
Oriental fruit moth 2 <sup>nd</sup> flight subsides	1806-2783	1164-1963	
Redbanded leafroller 2 <sup>nd</sup> flight subsides	1927-3045	1291-2160	
San Jose scale 2 <sup>nd</sup> flight peak	1934-2591	1271-1874	

Thanks to Scaffolds Fruit Journal (Art Agnello)

# Preliminary Monthly Climatological Data for Selected Ohio Locations June 2000

Weather Station Location	Monthly Precip	Normal Monthly Precip	Year- to- Date Precip	Year- to-Date	Average High	Normal High	Average Low	Normal Low	Mean Temp.	Normal Mean
Akron- Canton	4.93	3.18	23.67	17.79	77.4	78.5	58.9	57.0	68.2	67.8
Cincinnati	4.74	3.84	27.72	21.39	81.2	82.0	61.5	60.0	71.3	71.0
Cleveland	5.72	3.70	21.15	17.47	77.6	78.3	59.5	56.8	68.6	67.5
Columbus	3.50	4.04	22.04	18.87	81.2	80.4	62.0	58.0	71.6	69.2
Dayton	2.98	3.82	17.71	18.88	80.2	81.7	61.0	59.2	70.6	70.4
Mansfield	4.66	3.95	22.04	19.24	77.8	78.2	58.8	57.2	68.3	67.7
Norwalk	6.96	3.91	22.65	16.97	76.2	78.8	61.2	56.6	68.7	67.7
Toledo	5.51	3.75	20.48	15.76	78.5	79.8	59.5	56.0	69.0	67.9
Wooster	3.48	3.47	18.49	17.38	79.4	79.5	58.7	55.6	69.1	67.5
Youngstown	4.72	3.94	19.34	17.79	77.1	77.4	57.4	54.9	67.3	66.2

Temperatures in degrees F, Precipitation in inches

Record lows equaled: June 22; Mansfield 49° F, Youngstown 44° F

Table Created by Ted W. Gastier, OSU Extension from National Weather Service, OARDC & Local Data

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