



Newsletter

Extension

Fruit ICM News

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Calendar

January 20, 2001: Raspberry Pruning Demonstration in Seville, Ohio. Contact Sandy Kuhn at (800) 297-2072 for details.

January 29-31, 2001: Indiana Horticultural Congress, at the Adams Mark Hotel in Indianapolis. The Congress is for participants; let them know what issues you would like them to address. Check the website often for updates: <http://www.hort.purdue.edu> and follow the link for Indiana Horticultural Congress.

February 7-9, 2001: Ohio Fruit Growers Society Congress, in conjunction with the Ohio Vegetable and Potato Growers Association, Ohio Direct Marketing Association, and The Ohio State University will be held in Toledo at the Seagate Centre and Radisson Hotel.

Controlling Codling Moth: Changing Times

Source: Ric Bessin, Kentucky Extension Entomologist

Control of codling moth is changing. The use of organophosphate insecticides on apples has received considerable attention because of the Food Quality Protection Act of 1996. Because of this, Lorsban applications have been restricted to prebloom only, and new restrictions have been placed on Guthion. Another organophosphate insecticide that is used for codling moth control in apples and pears is Imidan. In the past, a grower would wait until 250 degree days after biofix to apply one of these organophosphate

insecticides. Danitol 2.4 EC is also available to be applied at this time (see 2001 *Ohio Commercial Tree Fruit Spray Guide*), but it is a pyrethroid insecticide. Two new insect growth regulators are now available for control of codling moth on apples and pears. These are Confirm 2F and Intrepid 2F, which are produced by Rohm and Haas. Both of these products are classified as General Use Insecticides, have a four hour reentry interval, and a 14 day preharvest interval. They are effective against lepidopterous larvae by causing them to molt prematurely. Spray timing of Confirm and Intrepid is much different than that of Guthion, Imidan, or Danitol. These products are applied at 100 to 200 degree days after biofix. A second application is then applied 10 to 15 days following the first. This may be 4 to 10 days before the 250 degree day application date. Precise timing for these newer, selective products is much more important than with the earlier broad-spectrum sprays. It will be necessary for growers to use these products in combination with pheromone trapping in order to monitor codling moth adult activity and time applications properly.

Another newly registered insect growth regulator for codling moth control in apples and pears is Esteem. This is for first generation control only. This product also has a different timing of its application and is discussed in the following article.

San Jose Scale Control on Apples

Source: Ric Bessin, Kentucky Extension Entomologist

In the past, apple and pear growers had used Lorsban 50W to control San Jose scale crawlers either in the last week of May or the first week of June. But new restrictions on Lorsban now limit its use to before bloom applications only. That has left us with only Diazinon for scale control during the season. To compound this, San Jose scale problems have been increasing in commercial orchards the past few years. A new product, called Esteem 0.86 EC, has recently been registered for San Jose scale control in apples and pears. It also controls aphids and first generation codling moth. The active ingredient is pyriproxyfen and it acts as a selective insect growth regulator. It bears the 'CAUTION' signal word and is classified as a General Use Pesticide. It has a 12 hour reentry interval, 45 day preharvest interval, a limit of 2 applications per season, and a minimum of 14 days between applications. For San Jose scale control, it can be applied as a delayed dormant application or during the season when scale crawlers are active. Because it is an insect growth regulator, it does not control the adult stage. The delayed dormant application can be applied in oil, and oils can be applied until about the half-inch green stage. Applied at this time it will also help to control aphids. During the growing season it should be applied when crawlers are active and control can be improved if mixed with oil. However, growers are cautioned to use oils carefully during this period to avoid crop injury. Esteem can also be used to control first generation codling moth, but timing for this application is much different than what we have done in the past. Esteem should be applied 100 degree days after biofix. Biofix is the date when the fifth codling moth is captured in a pheromone trap. Other insecticides for codling moth control, such as Guthion, Imidan, and Danitol, are applied 250 degree days after biofix.

Ohio Apple Marketing Program

In 1970 and 1990 Ohio apple producers voted to assess themselves for the purposes of promotion and research. Assessment funds were used for a number of activities during the past year, including:

- Responses to media inquiries regarding the Ohio apple and cider crops
- Distribution of 1999 Ohio Apple Directory listing important contact info about Ohio's growers
- Reprinting, promotion, and distribution of thousands of 1999 Ohio Apple Recipe Booklets
- Representation at trade shows and public relations events
- Contribution toward important programs & activities of the US Apple Association
- Apples featured on AgriCountry TV segments
- Featured Ohio apples for 160,000 visitors through displays, daily educational programs, and special activities at Lake Farm Park
- "Fruit + Vegetables = Health" education session scheduled for the 2001 Ohio Fruit & Vegetable Growers Congress

To be in compliance with the law, each Ohio apple producer must complete the 2000 Ohio Apple Marketing Program Assessment Notice and pay the assessment if monies are due. Please complete the form even if you have fewer than 500 trees and indicate such. Also, please indicate if you have sold your orchard and to whom, or if you have removed your trees so that your name can be deleted from future mailings. The rate of assessment is 10 cents per bushel for fresh apples and 10 cents per cwt. for processing apples processed/marketed between January 1 and December 31, 2000.

Ohio Temperature Means

Ohio Weather Station (Data set years)	Annual Mean Temperature F				Winter Mean Temperature F		
	Highest (Yr.)	Lowest (Yr.)	Normal	2000*	Highest (Yr.)	Lowest (Yr.)	Normal
Akron-Canton (1948-1996)	53.3° (1991)	47.5° (1958)	49.7°	49.4°	33.9° (1983)	20.5° (1977)	27.6°
Cincinnati (1949-1996)	62.3° (1949)	52.7° (1978)	54.5°	53.3°	40.4° (1950)	24.7° (1978)	32.8°
Cleveland (1896-1996)	53.5° (1931)	46.5° (1917)	49.6°	50.1°	38.8° (1932)	19.6° (1977)	27.6°
Columbus (1948-1996)	55.4° (1991)	49.7° (1976)	51.4°	52.6°	36.4° (1949)	20.7° (1977)	29.3°
Dayton (1896-1996)	57.3° (1973)	49.4° (1917)	53.4°	51.9°	40.7° (1932)	21.7° (1977)	30.2°
Elyria (1897-1996)	58.8° (1949)	46.6° (1901)	51.1°	na	35.0° (1950)	20.9° (1977)	28.7°
Fremont (1953-1994)	55.5° (1953)	47.3° (1978)	49.1°	na	33.6° (1954)	18.4° (1977)	25.8°
Mansfield (1948-1996)	53.1° (1973)	46.8° (1976)	49.5°	49.4°	34.0° (1983)	17.5° (1977)	27.1°
Norwalk (1896-1996)	54.0° (1921)	46.7° (1917)	48.9°	50.2°	37.7° (1932)	19.4° (1978)	26.3°
Toledo (1955-1996)	52.3° (1991)	46.8° (1978)	48.5°	50.0°	31.6° (1983)	17.7° (1977)	25.3°

Wooster (1893-1996)	53.4° (1921)	46.5° (1917)	48.8°	50.4°	37.9° (1932)	19.3° (1977)	27.0°
Youngstown (1897-1996)	54.4° (1931)	45.5° (1948)	48.3°	49.1°	39.2° (1932)	18.9° (1977)	26.3°

2000* preliminary data

Created by Ted Gastier, OSU Extension Agent, from following climatological sources:

<http://www.oardc.ohio-state.edu/centernet/stations/wohome.html>

<http://www.oardc.ohio-state.edu/centernet/stations/vehome.html>

<http://mcc.sws.uiuc.edu/Summary/Data/>

<http://iwin.nws.noaa.gov/iwin/oh/climate.html>

<http://www.nws.noaa.gov/er/iln/climate.htm>

<http://www.csuohio.edu/nws/climate/climate.html>

Ken Scaife, Vegetable Crops Branch Manager, OARDC

Norwalk Waste Water Treatment Plant

Local temperature monitors

Preliminary Monthly Climatological Data for Selected Ohio Locations December 2000

Weather Station Location	Monthly Precip	Normal Monthly Precip	Year-to-Date Precip	Normal Year-to-Date Precip	Average High	Normal High	Average Low	Normal Low	Mean Temp.	Normal Mean
Akron-Canton	3.07	2.95	45.61	36.82	27.7	37.7	13.3	23.6	20.5	30.7
Cincinnati	3.18	3.15	45.81	41.33	30.8	41.2	15.5	25.3	23.2	33.3
Cleveland	2.75	3.09	40.59	36.63	28.8	37.4	15.8	24.5	22.3	30.9
Columbus	3.60	2.86	42.86	38.09	30.5	39.2	16.2	24.6	23.3	31.9
Dayton	2.41	2.93	34.33	36.64	28.3	39.1	12.8	24.0	20.5	31.5
Mansfield	3.12	3.07	40.48	39.66	27.1	36.8	12.4	22.7	19.7	29.8
Norwalk	2.46	2.77	44.13	35.64	29.2	37.0	13.0	21.8	21.1	29.4

Toledo	3.33	2.93	39.48	32.97	26.2	35.2	10.3	20.5	18.3	27.8
Wooster	3.32	2.62	32.89	36.19	29.4	37.5	13.8	22.5	21.6	30.0
Youngstown	3.22	2.93	36.82	37.32	28.5	36.0	15.1	22.9	21.8	29.5

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Information presented above and where trade names are used, they are supplied with the understanding that no discrimination is intended and no endorsement by Ohio State University Extension is implied. Although every attempt is made to produce information that is complete, timely, and accurate, the pesticide user bears responsibility of consulting the pesticide label and adhering to those directions.

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

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