http://ipm.osu.edu/fruit/index.html

THE OHIO STATE UNIVERSITY Newsletter Extension

Fruit ICM News

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Calendar

December 10: Introduction to Organic Farming Workshop, Fisher Auditorium, OARDC, Wooster, OH
Hours are 8:30 a.m. to 3:30 p.m. Registration, which includes reference materials and an organic lunch, is $10 for the first person from a family and $5 for each additional family member. The deadline to register is December 3. Call 330-202-3528 or 330- 202-3534 for information or to register.

December 11: Ohio Fruit Growers Society and Ohio Vegetable Growers Society Policy Development Meeting, Dutch Heritage Restaurant, Bellville, OH

December 16: Ohio Fruit Growers Society Research Committee Meeting, Dutch Heritage Restaurant, Bellville, OH

January 21-23, 2004: Ohio Fruit & Vegetable Growers Congress, Ohio Roadside Marketing Conference, & Ohio Christmas Tree Association Winter Meeting, SeaGate Convention Centre and Radisson Hotel, 410 Jefferson Avenue, Toledo. For more information contact Tom Sachs at Ohio Fruit Growers, 614-246-8292, e-mail growohio@ofbf.org. Check out the web site at http://www.ohiofruit.org.

February 21-22: The North American Bramble Growers Association National Meeting, Tampa, FL. See the web site http://www.nabga for details.

Country-Of-Origin Labeling Delayed

Source: The Fruit Growers News http://www.fruitgrowersnews.com

Congressional leaders have agreed to delay implementation of the current country-of-origin labeling law for produce and all other products except for fish until Sept. 30, 2006, according to a release from

United Fresh Fruit and Vegetable Association (UFFVA). The agreement to delay the law's enforcement is contained as part of an omnibus appropriations bill filed Nov. 25 in the U.S. House of Representatives.

"This decision is a victory for produce growers, shippers and marketers across the country who believe in providing country of origin information to consumers, but through a market-driven system rather than the burdensome and costly regulations that this law required," said UFFVA President Tom Stenzel. "Congressional support of the two-year delay strikes just the right balance, freeing our members from the imminent cost and market disruption of the law while allowing the industry itself a chance to develop a more cost effective and efficient plan."

With the conference report now filed in the House, final passage is expected when Congress returns. The House is expected to reconvene Dec. 8, and the Senate schedule is not yet confirmed.

Environmental Impact Quotient Analysis of Pesticide Use in North Central Ohio - 1999 & 2003

Source: Ted Gastier, Huron County Extension

Background

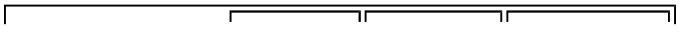
Producers enrolled in the North Central Tree Fruit Integrated Pest Management (IPM) Program post spray records at a location accessible to the scout/technicians. This allows for the protection of those people as well as providing a source of information for analysis of orchard pesticide use. This report will look at pesticide use on the basis of "dosage equivalents" (DE), "Environmental Impact Quotients" (EIQ), and cost of materials. See last week's Ohio Fruit ICM News for discussion of DE and EIQ.

A dosage equivalent is the rate per acre of a specific material recommended for use by the 1999 and 2003 Ohio Commercial Tree Fruit Guides. When the recommendation is a range, the midpoint is considered the dosage equivalent or DE. Sixty-nine pesticides and formulations labeled for apples and peaches were included.

Environmental Impact Quotients (EIQ) are useful as a method to measure the environmental impact of pesticides. In most IPM programs, pesticides are chosen on the basis of their efficacy or cost rather than on their potential environmental impact. Cornell researches have ranked pesticides by environmental impact which was included as a chapter in the Encyclopedia of Environmental Analysis and Remediation, available from John Wiley & Sons, Inc. A condensed version, with a table including in alphabetical order over 200 pesticides, is available from this web site http://aruba.nysaes.cornell.edu/ipmnet/ny/program_news/EIQ.html. The values of individual effects of each pesticide (applicator, picker, consumer, groundwater, aquatic, bird, bee, beneficials), the major components of the calculations (farm worker, consumer, and ecological), and the average EIQ values are presented in the table.

The costs per dosage equivalent were calculated from the price list of a major orchard supplier in Ohio. A mid-season (July) payment date was selected.

An Examination of Average Seasonal EIQs & Costs - North Central Ohio



	Year	1999	2003
Apple	EIQ	1733	1610
	Cost	$306.53	$610.05
Peach	EIQ	1744	2553
	Cost	$176.78	$356.51

These EIQs are particularly high as we would expect EIQs to be about 1000 according to the Cornell work. An explanation lies in the use of Ziram and Polyram in apple, and ziram and sulfur in peaches. These are EIQs per dosage equivalents for these and other fungicides:

Sulfur - 737
Surround - 380
Thiram - 169
Polyram - 144
Ziram - 137
Bravo - 77
Captan - 47
Syllit - 34
Topsin-M - 18
Rovral - 8.0
Nova - 5.4
Orbit - 3.1
Rubigan - 1.7
Indar & Elite EIQs not available

The determination of the EIQ for a particular pesticide is dependant upon the total weight of formulation applied. All pesticides being considered are evaluated on an equal basis of one pound of formulation. Therefore, older fungicides which are applied in multiple-poundage dosages, without any other factors considered, have a much higher EIQ than newer fungicides which are a applied in ounces per acre dosages. Then when you add the potential impact to the environment of some of the older materials, the much higher numbers above are understandable.

What are some of the potential environmental problems with sulfur, ziram, and Polyram? According to George W. Ware in "The Pesticide Book", ziram and Polyram (metiram) as members of the EBDCs (ethylenebis-dithiocarbamates) class, have been under close scrutiny by the EPA. In 1989, EPA proposed banning many uses of the EBDCS because of the cancer risk posed by ethylene thiourea (ETU), an EBDC degradation metabolite. Following a large study of food samples, EPA reported that 80% had no detectable residues and reversed their decision in 1992.

Sulfur, while considered nontoxic to fish, bees, and relatively nontoxic to humans, is classed as a miticide. This makes sulfur detrimental to predatory mites. But the real problem with sulfur is the large amounts, applied frequently, necessary to reach the same level of control of apple scab and brown rot in peaches. Mike Ellis, in his "Integrated Pest Management (IPM) Disease Management Guidelines for Organic Apple Production in Ohio" bulletin, gave a worst case scenario of up to up to 25 applications per season necessary to obtain satisfactory control. Factor in the dosage rate of 18 pounds per acre per application and you create some a very large EIQ over a season.

Alternatives

A better EIQ model was created in 1999 for apples excluding ziram and Polyram which lowered the EIQ rating from 1600 to 586 and lowered season costs of materials by $10.50 per acre. For peaches, a better EIQ model without ziram and sulfur yielded an EIQ rating of 595 at an additional cost of $5.20 per acre. By considering EIQs, IPM practitioners can incorporate environmental concerns, along with efficacy and cost, into the pesticide decision making process.

North Central Ohio Pesticide EIQs, DEs and Costs for 1999 & 2003

Grower Code	Apple						Peach					
	EIQ		DE		Cost $		EIQ		DE		Cost $	
Year	1999	2003	1999	2003	1999	2003	1999	2003	1999	2003	1999	2003
22-1	2321	1846	20	25	342.58	577.99	1766	3590	8	19	130.36	300.18
47-2	568.7	1484	10	12	199.69	263.36	-	-	-	-	-	-
72-3	-	1413	-	23	-	572.44	-	1493	-	19	-	365.51
22-4	2305	1927	18	24	330.19	692.67	2501	2186	9	18	124.14	390.42
47-5	2535	1559	21	21	365.02	600.70	-	-	-	-	-	-
22-6	1575	887.5	17	16	313.37	471.58	-	-	-	-	-	-
47-7	2302	1171	19	17	332.48	406.03	-	-	-	-	-	-
47-8	1649	2710	18	38	345.21	1197	1799	2943	13	16	198.29	369.91
22-9	1649	1891	12	30	223.70	647.60	910	-	11	-	254.32	-
22-10	-	1211	-	19	-	671.10	-	-	-	-	-	-
AVG	**1733**	**1610**	**17**	**22.5**	**306.53**	**610.05**	**1744**	**2553**	**10**	**18**	**176.78**	**356.51**

Terminal Market Wholesale Fruit Prices December 3, 2003

Source: Chicago http://www.ams.usda.gov/mnreports/HX_FV010.txt
Detroit http://www.ams.usda.gov/mnreports/DU_FV010.txt
Pittsburgh http://www.ams.usda.gov/mnreports/PS_FV010.txt

Apples			
Cartons cell-pack			Terminal Market
	U.S. ExFcy Empire	**MI** 96s 20-20.50	Detroit
	U.S. ExFcy Empire	**NY** 80s & 100s 23.00	Detroit
	U.S. ExFcy McIntosh	**MI** 80s 20.00	Detroit
		MI 96s 20.00-20.50	Detroit
	U.S. ExFcy McIntosh	**NY** 80s & 100s 23.00	Detroit
		NY 120s 20.50-21.00	Detroit

	U.S. Fancy McIntosh	**NY** 80s 18.00	Pittsburgh
		NY 100s 17.50	Pittsburgh
		NY 120s 16.00	Pittsburgh
Cartons tray-pack			
	U.S. ExFcy Golden Delicious	**MI** 125s & 138s 14.00	Pittsburgh
	U.S. ExFcy McIntosh	**WI** 64s & 72s 24.00	Chicago
	U.S. ExFcy Red Delicious	**MI** 56s & 72s 18.00	Chicago
	U.S. ExFcy Red Rome	**NY** 80s 19.00	Pittsburgh
	Combination U.S. ExFcy-U.S. Fcy		
	Red Delicious	**WV** 125s & 138s 12.00	Pittsburgh
Cartons tray/cellpack			
	U.S. ExFcy McIntosh	**WI** 96s 21.00	Chicago
12 3-lb filmbags			
	U.S. ExFcy Empire	**MI** 2 ½" min 11.50-12.00	Detroit
	U.S. ExFcy Gala	**MI** 2 ½" min 13.50-15.50	Detroit
	U.S. ExFcy Golden Delicious	**MI** 2 ½" min 11.50-12.00	Detroit
	U.S. ExFcy Idared	**MI** 2 ½" min 11.50-12.50	Detroit
	U.S. ExFcy Jonathan	**MI** 2 ½" min 11.50-12.75	Detroit
	U.S. ExFcy McIntosh	**MI** 2 ½" min 10.00-14.00	Detroit
	U.S. ExFcy Red Delicious	**MI** 2 ½" min 11.50-12.50	Detroit
	U.S. ExFcy Rome	**MI** 2 ½" min 11.50-12.50	Detroit
	Combination U.S. ExFcy-U.S. Fcy		
	McIntosh	**NY** 2 ¼" min 11.00	Pittsburgh
	Red Delicious	**NY** 2 ½" min 11.50-11.75	Pittsburgh
	Rome	**NY** 2 ½" min 11.50-11.75	Pittsburgh
	U.S. Fcy Gala	**MI** 2 ¼" min/up 12.50-13.00	Chicago
	U.S. Fcy Gala	**MI** 2 ¼" min 10.50-11.00	Detroit
	U.S. Fcy Golden Delicious	**MI** 2 ¼" min 10.50-11.00	Detroit
	U.S. Fcy Jonathan	**IL** 2 ¼" min/up 9.00-10.00	Chicago
	U.S. Fcy McIntosh	**MI** 2 ¼" min/up 10.00-11.00	Chicago
	U.S. Fcy McIntosh	**MI** 2 ½" min 10.50-11.00	Detroit
	U.S. Fcy McIntosh	**NY** 2 ½" min 10.00	Detroit
	U.S. Fcy McIntosh	**NY** 2 ½" min 11.50-11.75	Pittsburgh
	U.S. Fcy Paula Red	**MI** 2 ¼" min/up 10.50	Chicago

	U.S. Fcy Red Delicious	**IL** 2 ¼" min/up 9.00-10.00	Chicago
	U.S. Fcy Red Delicious	**MI** 2 ¼" min/up 10.00-11.00	Chicago
	U.S. Fcy Red Delicious	**MI** 2 ¼" min 10.50-11.00	Detroit
	U.S. Fcy Rome	**MI** 2 ¼" min/up 10.00	Chicago
Bushel cartons loose			
	U.S. Fcy Empire	**MI** 2 ¾" up 10.00	Detroit
	U.S. Fcy Golden Delicious	**MI** 3" min 10.00-12.00	Detroit
		MI 2 ¾" up 8.00-10.00	Detroit
	U.S. Fcy Idared	**MI** 2 ¾" up 10.00	Detroit
	U.S. Fcy Jonagold	**MI** 3" min 10.00	Detroit
	U.S. Fcy McIntosh	**MI** 3" min 10.00-12.00	Detroit
	U.S. Fcy Red Delicious	**MI** 3" min 10.00	Detroit
	U.S. Fcy Red Delicious	**MI** 2 ¾" up 8.00-12.00	Detroit
	No grade marks Jonathan	**IL** 2 ¼" min/up 9.00	Chicago

The intent of listing terminal market prices is to provide information available in the public domain. It is not intended for price setting, only to assist growers in evaluating the value of their crops. Producers need to remember that the prices listed are gross, and consideration must be given to marketing costs, including commission, handling charge, gate fees, and possible lumper fees.

Preliminary Monthly Climatological Data for Selected Ohio Locations, November, 2003

Weather Station Location	Monthly Precip	Normal Monthly Precip	Year-to-Date Precip	Normal Year-to-Date Precip	Avg High	Normal High	Avg Low	Normal Low	Mean Temp.	Normal Mean
Akron-Canton	3.10	3.04	48.20	35.49	53.0	48.7	36.8	33.4	44.9	41.0
Cincinnati	3.92	3.46	40.64	39.32	57.0	53.6	38.9	35.7	48.0	44.7
Cleveland	3.68	3.38	38.60	35.56	55.6	48.7	39.9	34.9	47.8	41.8
Columbus	2.89	3.19	46.17	35.57	55.4	52.5	39.1	34.9	47.3	43.7
Dayton	3.88	3.30	41.09	36.50	54.7	50.1	38.3	34.3	46.5	42.2
Fremont	3.01	2.78	34.82	31.97	55.4	49.3	32.5	32.1	43.9	40.7
Kingsville	4.55	3.60	52.52	36.80	51.0	49.6	37.9	35.0	45.9	42.3
Mansfield	3.16	3.76	38.36	39.97	52.8	48.7	36.2	32.2	44.5	40.4
Norwalk	3.92	2.91	41.25	32.87	54.3	49.3	38.0	31.9	46.1	40.3
Piketon	3.84	3.00	44.66	38.80	59.3	51.4	36.6	33.2	47.9	42.7

Toledo	1.99	2.78	34.03	30.57	53.7	48.3	37.0	32.6	45.4	40.4
Wooster	3.13	2.93	40.54	33.57	54.8	49.3	36.4	31.8	45.6	40.5
Youngstown	3.00	3.07	43.37	35.06	53.3	48.4	36.5	33.0	44.9	40.7

Temperatures in degrees F, Precipitation in inches

New Records: Nov. 3; Fremont 77/ Nov. 4; Akron-Canton 76, Cleveland 79, Fremont 76, Kingsville 79, Mansfield 76, Norwalk 78 , Toledo 80, Wooster 78, Youngstown 77

Records tied: Nov 2; Cleveland 77 / Nov. 4; Cincinnati 78, Dayton 76

Table Created by Ted W. Gastier, OSU Extension from National Weather Service Data, OARDC, and local reports

Websites http://iwin.nws.noaa.gov/iwin/oh/climate.html http://www.oardc.ohio-state.edu/centernet/stations/wohome.html

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