

PLANT & PEST ADVISORY

CRANBERRY EDITION \$1.50

JUNE 15, 2004



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Insect Update

James D. Barry, Ph.D., Post-Doctoral Research Associate

✓ **Sparganothis Fruitworm** – The first moths were captured in pheromone traps on June 4. This is almost 3 weeks earlier than our first moth capture in 2003. Egg masses frequently contain 20-50 eggs, which hatch after 10-12 days. Sparganothis fruitworm deposits these masses, which are very difficult to find, on the upper side of cranberry leaves.

✓ **Spotted Fireworm** – Significant numbers of moths are still being captured in pheromone traps. Oviposition can occur within 24 hours after mating. The first egg mass was found on June 10. Egg masses can contain up to 350 eggs, and typically hatch in about 10 days. Spotted fireworm prefers to lay egg masses on weed species such as red maple, green-brier, leatherleaf, loosestrife, red root, St. John’s wort, *Smilax* and *Clethra* (Averill and Sylvia, 1998). Managing weeds around and in the bog can result in a reduction in the numbers of spotted fireworm egg masses.

✓ Other insects being seen at this time include: **blunt-nosed leafhopper**, **cranberry girdler**, and **cranberry tipworm**. However, these insects are present in low numbers.

✓ **Insecticide Sprays** – If insects have been effectively managed, then most likely no spray will be needed at this time. If there is a heavy infestation, then two sprays may be needed during bloom, for controlling first instar larvae of **spotted fireworm** and **Sparganothis fruitworm**. The first spray would occur in 1-2 weeks, with the second spray following 7-10 days later. If there is a light to moderate infestation then one spray could be applied in approximately 2 weeks.

When bees are present your best choices of insecticides are Confirm 2F, Intrepid 2F, or DiPel. □

Pesticide Safety Around the Farm

Bill Coli, UMass Extension Farm Safety Coordinator

Reprinted from *Healthy Fruit-UMASS Fruit News Letter*, Vol. 11(9) June 3, 2003, <http://www.umass.edu/fruitadvisor/>.

Those of us who use pesticides certainly make every effort to do so in accordance with label conditions regarding rates, personal protective equipment (PPE), re-entry intervals (REIs), pre-harvest intervals (PHIs) and the like, and take pains to be sure that farm workers and family members are not exposed to pesticides. With the passage in 1996 of the Food Quality Protection Act (FQPA) additional attention has been paid by the EPA to concerns about worker exposure and potential dietary effects of pesticides on children.

However, studies conducted at the Pacific Northwest Agricultural Safety and Health Center (PNASHC) have indicated that children may be exposed to pesticides in other ways (See "Pesticides and Farming: Are Children in Harm's Way?" NIOSH Ag. Research Centers Update, Spring 2003, Vol. 1, No. 2). The PNASHC found "elevated" levels of agri-chemicals in household dust in homes of agricultural workers compared to the general public. A recent report on the studies went on to add that "...children of pesticide applicators also had higher levels of pesticide metabolites" in their urine than children whose parents did not work in agriculture.

Another PNASHC study of 44 pre-school children of non-agricultural workers who live in close proximity to sprayed agricultural areas found that levels of pesticide metabolites in their urine increased during the spraying season and returned to normal after the end of the season. Of course the situation in northeast is likely very different from Washington State in terms of the size of agricultural areas being treated with pesticides. Nonetheless, as noted by the PNASHC study authors, it would still seem prudent to consider ways "to strike a proper balance between the risks and benefits of agricultural pesticide use", and minimize potential exposure of our families and our neighbors.

Laundering Clothing used During Application of Pesticides

Applicators cannot completely avoid exposure to the chemicals that they apply. Exposure occurs during any of the many activities involved in the spraying operation, including transporting the pesticide, tank filling and mixing, container rinsing, spraying, sprayer maintenance, pesticide storage and early re-entry to treated areas.

Exposure can involve contact with pesticide vapors and aerosols, the concentrated pesticide formulation in a liquid, granular, or powder form, and the spray mixture itself. Workers absorb chemicals into the body through the skin, eyes, respiratory (breathing) or digestive system (swallowing). Studies have shown that good personal hygiene practices reduce the risk of long term health effects.

General Recommendations

- Read and understand the product label and material safety data sheet before application.
- Bathe or shower after completion of pesticide application, including shampooing hair thoroughly and cleaning under nails.
- Put on clean clothing.
- Clothing worn during application must be washed daily after each use.
- Launder all clothing used for spraying separately from the family's regular clothes.
- Personal protection equipment should be cleaned daily after use.
- Discard any clothing that is heavily soiled with pesticide concentrate.

Preparation for Laundering

- Remove pesticide granules from cuffs and pockets outdoors (in the field).
- Discard (according to label instructions) any garment saturated with a full-strength chemical.
- Handle soiled clothing with chemical resistant gloves.
- Use disposable plastic garbage bags for temporary storage of pesticide-soiled clothes before washing.
- Pre-treat pesticide-soiled clothes with a laundry stain removal product intended for oily stains when an oil-base (emulsifiable) formulation has been used.
- Pre-treat heavily soiled areas.
- Read the pesticide label for information.
- Pre-rinse pesticide-soiled clothing: on pre-soak cycle of automatic washer or presoaking in a suitable container (dump water on field) or spray/ hose the garment outdoors (away from children and pets).

Laundering

- Isolate pesticide-contaminated work clothes and wash them separately from the regular family laundry to avoid contamination.
- Do not overcrowd clothes in the washing machine.
- Use hot water (140°F) setting.
- Use full water level.
- Use normal wash cycle (about 12 minutes).
- Use more detergent than recommended by product label.
- Use fabric starch. Pesticide residues cling to the starch and are removed in the subsequent wash cycle when the starch is washed away.

See Pesticide Safety on page 3

- Choose a heavy-duty detergent (liquid or powder).
- Re-wash clothing two or three times.
- Line dry clothing to avoid contamination of the dryer and to allow sunlight to break down pesticide residues.
- Run the empty washer through a full wash/rinse cycle afterward.

Instructions for Cleaning Protective Equipment

- Wear rubber gloves while cleaning equipment
- Wash hard hat or waterproof hat, goggles, face shield, apron, boots with hot soapy water, rinse and dry.
- Wash the respirator face-piece only. Before cleaning, remove the cartridges.

- Wash the respirator in warm soapy water, rinse and air-dry.
- Check seals and valves for signs of damage or wear.
- Store the respirator and cartridges in a sealed plastic bag.
- Last wash your gloves with hot soapy water, rinse and dry.
- Inspect and replace any worn or damaged protective equipment.

Adapted from the Institute of Rural and Environmental Health, University of Saskatchewan by Craig Hollingsworth.

Submitted by Win Cowgill, Agricultural Agent. □

Weekly Weather Summary

Keith Arnesen, Ph.D., Agricultural Meteorologist

Temperatures averaged near normal, averaging 68 degrees north, 69 degrees central and 69 degrees south. Extremes were 94 degrees at Canoe Brook on the 10th, and 46 degrees at Charlotteburg on the 12th. Weekly rainfall averaged 0.45 inches north, 0.36 inches central, and 0.65 inches south. The heaviest 24 hour total reported was 1.03 inches at Belvidere on the 10th to 11th. Estimated soil moisture, in percent of field capacity, this past week averaged 82 percent north, 79 percent central and 75 percent south. Four inch soil temperatures averaged 66 degrees north, 68 degrees central and 68 degrees south.

Weather Summary for the Week Ending 8 am Monday 6/14/ 4										
WEATHER STATIONS	RAINFALL			TEMPERATURE				GDD BASE50		MON %FC
	WEEK	TOTAL	DEP	MX	MN	AVG	DEP	TOT	DEP	
BELVIDERE BRIDGE	1.03	12.86	-.33	93	50	70.	2	822	256	89
CANOE BROOK	.24	14.99	.64	94	49	71.	3	863	333	72
CHARLOTTEBURG	.27	14.44	.09	91	46	67.	2	738	343	65
FLEMINGTON	.73	15.33	1.68	91	48	68.	0	824	272	88
LONG VALLEY	.36	12.54	-2.11	88	48	66.	0	711	267	76
NEWTON	.07	13.45	.60	92	47	67.	1	730	277	73
FREEHOLD	.77	15.47	1.97	93	50	71.	2	904	273	91
LONG BRANCH	.16	13.36	-.36	92	53	69.	1	727	155	63
NEW BRUNSWICK	.50	14.02	.79	93	50	70.	0	857	184	88
TOMS RIVER	.10	15.10	1.67	93	49	69.	2	923	352	60
TRENTON	.25	12.19	-.05	93	53	69.	-2	903	187	57
CAPE MAY COURT HOUSE	.30	12.98	1.10	89	51	67.	-2	846	207	53
DOWNSTOWN	1.19	13.53	1.39	90	50	68.	-2	996	258	90
GLASSBORO	.62	16.35	3.30	92	54	70.	-1	1055	337	73
HAMMONTON	.13	13.66	.96	92	51	69.	-2	1027	318	53
POMONA	.95	12.51	.82	90	51	68.	-1	943	299	86
SEABROOK	.71	15.33	3.90	91	53	70.	-1	1121	377	81
SOUTH HARRISON	.97	16.73	3.78	90	53	69	NA	1063	NA	NA
WES KLINE — GDD BASE 40 PINEY HOLLOW										
Last Week 169 (Ending 6/7/04)										
This Week 197 (Ending 6/14/04)										

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Pesticide User Responsibility: Use pesticides safely and follow instructions on labels. The pesticide user is responsible for proper use, storage and disposal, residues on crops, and damage caused by drift. For specific labels, special local-needs label 24(c) registration, or section 18 exemption, contact RCE in your County.

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