

# PLANT & PEST ADVISORY

CRANBERRY EDITION \$1.50

AUGUST 22, 1997



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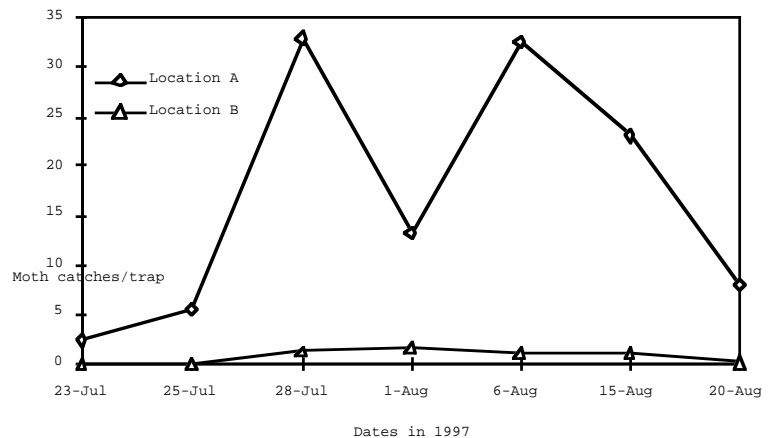
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### Insect Update

*Sridhar Polavarapu, Ph.D., Entomology and IPM*

**Blackheaded fireworm:** We employed pheromone-baited traps for monitoring blackheaded fireworm for the first time during the second generation flight this year. The peak flight in the second generation in New Jersey appears to be during the last week of July to early August. Blackheaded fireworm eggs are whitish, semi-circular and flat. Eggs are laid singly on the underside of the leaves. Most of the eggs laid during the second generation flight will overwinter and hatch in late April to early May the following year.

Pheromone trap catches of blackheaded fireworm, near Chatsworth, NJ

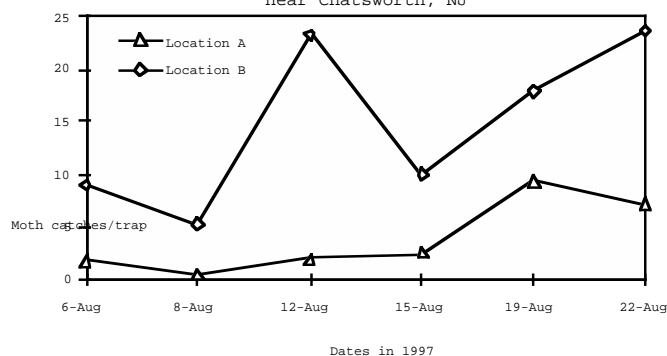


**Spotted fireworm:** Pheromone trap catches are very close to peak at most of the monitored locations. Eggs are being laid on several weed hosts including leather leaf, red maple, red root, loose strife etc. Egg laying will continue well into the first and second weeks of September. The larvae hatching from these egg masses will overwinter after reaching the second instar stage. Larvae in this generation do not cause any damage to the crop.

*See Spotted foreworm on page 2*

*Spotted fireworm from page 1*

Pheromone trap catches of Spotted fireworm, near Chatsworth, NJ



**Sparganothis fruitworm:** Moth catches in pheromone traps have remained very low this past week. The pheromone trap catches are expected to peak in another 10-14 days. Egg laying and hatching will continue for another 3-4 weeks. Sparganothis fruitworm also overwinter as early instar larva on the bog floor. Larvae of this overwintering generation do not cause any damage to the crop.

**Grub problems in cranberries:** We have recently initiated a new project on root infesting grubs of cranberries. The objectives of this project are 1) to identify grub problems in New Jersey Cranberries, and 2) to develop management methods to control grub problems. To date we have identified **Cranberry rootworm, Oriental beetle, Japanese beetle, and May-June beetle** as the major grub species infesting our bogs. Except for the Cranberry rootworm, the remaining three grub species mentioned above fall under the broad category of "scarab grubs". The Cranberry rootworm belongs to the same family as the Colorado potato beetle, a major pest on potato crops.

The above information is based on our surveys conducted on four farms around the Chatsworth area. We would like to expand our surveys to include all major cranberry growing areas of the State. Please give us a call at (609) 726-1590 if you have bogs suspected to harbor grub infestations. □

## Weekly Weather Summary

*Keith Arnesen, Agricultural Meteorologist*

Temperatures averaged much above normal. Extremes were 100 degrees at Woodstown on the 17th, and 54 degrees at Newton and Charlotteburg on the 15th. Weekly rainfall averaged 1.48 inches North, 0.86 inches Central, and 0.56 inches South. The heaviest 24 hour total was 2.27 inches at Charlotteburg on the 17th to 18th. Estimated soil moisture, in percent of field capacity, this past week averaged 74 percent North, 64 percent Central and 52 percent South. Four inch soil temperatures averaged 72 degrees North, 75 degrees Central and 76 degrees South.

### Weather Summary for the Week Ending 8 a.m. Monday 8/18/97

WEATHER STATIONS	RAINFALL			TEMPERATURE				GDD BASE50		MON
	TOTAL	DEP	MX	MN	AVG	DEP	TOT	DEP	%FC	
BELVIDERE BRIDGE	1.63	20.33	-2.04	94	54	74.	4	1803	-145	99
CANOE BROOK	.64	21.75	-1.75	96	59	77.	6	2164	209	70
CHARLOTTEBURG	3.16	22.84	-.88	92	54	73.	5	1702	161	100
FLEMINGTON	.49	21.56	-1.12	94	58	75.	4	1872	-133	77
LONG VALLEY	1.40	22.50	-1.95	90	55	73.	5	1665	-69	90
NEWTON	1.57	18.78	-3.09	90	54	72.	3	1563	-216	87
FREEHOLD	missing									
LONG BRANCH	.69	19.67	-2.56	95	67	77.	5	2059	0	55
NEW BRUNSWICK	.38	27.44	5.23	95	61	77.	4	2072	-151	74
PEMBERTON	1.64	20.74	-1.75	98	71	82.	9	2359	177	75
TOMS RIVER	.70	19.18	-3.61	95	65	78.	7	2098	53	50
TRENTON	.87	22.74	1.60	96	60	76.	2	2051	-275	70
CAPE MAY COURT HOUSE	.10	16.05	-3.62	98	63	78.	4	2184	-18	28
DOWNSTOWN	.22	17.62	-3.18	98	60	78.	5	2189	-143	40
GLASSBORO	1.69	21.99	.23	95	67	79.	5	2343	34	70
HAMMONTON	.98	19.68	-2.11	97	60	78.	4	2172	-140	61
POMONA	.59	22.04	2.06	98	65	79.	7	2190	34	53
SEABROOK	.07	18.94	-1.02	99	67	80.	6	2341	-3	27
ATLANTIC CITY MARINA	.28	19.18	.03	97	71	79.	6	2196	118	36
WOODSTOWN	.00	17.98	-3.69	100	60	80	NA	2363	NA	NA
WES KLINE — GDD BASE 40 PINEY HOLLOW										
Last Week 226 (Ending 08/11/97) This Week 266 (Ending 08/18/97)										

## When It Rains It Pours

# Potential for Fruit Rot in Flooded Beds

*Dan Schiffhauer Ocean Spray Cranberries Inc.,  
and Peter Oudemans, Ph.D., Plant Pathology*

As luck would have it, New Jersey growers received a downpour on August 20 and many growers in the southern parts of Burlington County had beds flooded. The question arises as to the utility of applying a fungicide spray after the flood is removed. It probably is not worthwhile to apply a fungicide at this time. First of all, it is far too late in the season to even contemplate using Bravo. Dithane is the next logical choice, but it has been shown to retard fruit color quite

markedly when applied late in the season. The greatest danger to the fruit on flooded beds is posed by water remaining on the beds and heating up. Growing fruit can suffer physiological damage from warm water/low oxygen conditions quite easily. In that case, the fruit turns a uniform orange color and rots. It may well be that the fruit development at this point is sufficiently advanced to minimize the risk of physiological damage.

The real concern is not with the usual component of **fruit rot** organisms that we battle, but rather with **storage rot** fungi. Many of the storage rots, such as **black rot** and **end rot**, are very common in floodwater and could be seen this year before harvest in fruit from those beds that were flooded. There is a real possibility that flooded beds could have a lot of fruit affected by these storage rot fungi. It might be a good idea to consider early harvesting of beds that flooded. □

## American Cranberry Growers Association, Inc. Summer Meeting

August 28, 1997

Rutgers Cranberry/Blueberry Research Center, Oswego, NJ

**8:00 a.m. to 8:30 a.m. Coffee and Danish**

**8:30 a.m. to 11:30 a.m. Field Plot Session**

- ❖ Fruit Rot Control - Evaluation of sprayer efficacy  
Dr. Peter Oudemans - Rutgers Cranberry/Blueberry Research Center
- ❖ Screening of Newer Insecticides - to manage major caterpillar pests of cranberry  
Dr. Sridhar Polavarapu - Rutgers Cranberry/Blueberry Research Center
- ❖ Herbicide Testing in Cranberries  
Dr. Bradley Majek and Dr. Albert Ayeni - Rutgers Agricultural Research and Extension Center, Centerton, NJ. Presented by Ms. Susan Butkewich, Agricultural Weed Scientist - Ocean Spray Cranberries, Inc.
- ❖ Variety Plots - Evaluating wild and cultivated varieties  
Dr. Nicholi Vorsa - Rutgers Cranberry/Blueberry Research Center

**11:30 a.m. to 12:30 p.m. Picnic Lunch**

- ❖ American Cranberry Growers Association Business Session  
Tom Gerber, President

**12:30 - 3:30 p.m. Laboratory Session**

- ❖ Initial Results Using GSP in Precision Cranberry Culture  
Steven Lee - Cranberry Grower
- ❖ Biological Control Cranberry Fruit Rot  
Dr. Donald Kobayoshi - Dept. of Plant Pathology, Rutgers
- ❖ Development of DNA Fingerprinting Technology  
Dr. James Polashock - Rutgers Cranberry/Blueberry Research Center
- ❖ Evaluating for Phytophthora Root Rot Resistance  
Dr. Peter Oudemans - Rutgers Cranberry/Blueberry Research Center
- ❖ Life History & Management of Major Grub Species Infesting Cranberry  
Dr. Sridhar Polavarapu and Dr. Robin Stuart - Rutgers Cranberry/Blueberry Research Center
- ❖ Cranberry Species from Around the World  
Dr. Nicholi Vorsa - Rutgers Cranberry/Blueberry Research Center

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