

# PLANT & PEST ADVISORY

CRANBERRY EDITION \$1.50

JULY 25, 1997



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## Insect Update

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

✓ **Spotted fireworm:** Most of the larvae are in fourth or fifth instar stage at this time. Spotted fireworm has six larval instars. Larvae in the second generation build shelters by webbing fruit and foliage. The majority of the Spotted fireworm larvae are within these large messy shelters and only a few larvae can be seen enclosed in single berries at this time. Populations in most fields that received a post-pollination insecticide application are well within tolerable levels. A second insecticide application to control these few remaining larvae is not required at this time and may do more harm than good by killing natural enemies. Moth emergence is expected to begin during the first week of August.

✓ **Sparganothis fruitworm:** Medium to large sized larvae of Sparganothis fruitworm are present at low levels in several locations. Most larvae are in fourth instar stage. Sparganothis larvae undergo five larval molts before pupation. Sparganothis larvae make a roundish entry hole and the majority of the larvae are enclosed in single berries. When shelters are built, they are not as big as the ones made by Spotted fireworm. Moths of the second generation will begin to emerge during the first week of August.

✓ **Blackheaded fireworm:** The adults of the second generation started to emerge in the last couple of days. Trap catches at the Research Center in Chatsworth are averaging 3 moths per trap per week. Trap catches will peak in the following 10-12 days. Blackheaded fireworm lays eggs singly on the lower surface of cranberry leaves. Most of the eggs laid in this generation will overwinter and only a few eggs laid by the earliest emerging moths may hatch and complete another generation.

✓ **Cranberry girdler:** Growers should check their bogs for the presence of larval damage. The damage will appear as patches of brown foliage where vines are completely severed. Often larvae feed only on the underside of the vine causing partial girdling of the vines. When this occurs, the vines are not completely killed but weakened sufficiently to cause a reduction in yield.

*See Insects on page 2*

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**Prior to Diazinon application, girdler damage must be confirmed by your County Agent or a representative of Rutgers Blueberry and Cranberry Research Center.**

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Girdler control can be achieved with the granular formulation of Diazinon. United Agri Products has recently registered Diazinon G14 (granular formulation) under section 24-C for cranberry girdler control in New Jersey. Diazinon G14 must be applied from the ground directly on vines at a rate of 21 lbs/acre and watered in with at least 1/4 inch of water. There may not be any discharge of water from the bog for 7 days after application. The pre-harvest interval is 7 days. Please read and follow all directions on the Supplemental label.

Prior to Diazinon application, girdler damage must be confirmed by your County Agent or a representative of Rutgers Blueberry and Cranberry Research Center. Because this product is registered under Section 24-C in New Jersey, you should have a copy of the Supplemental Label at the time of application of this product. Please follow all restrictions stated in the label. □

**PESTICIDE USE RESTRICTIONS**

<b>PESTICIDE*</b>	<b>RE-ENTRY TIME</b>	<b>PRE-HARVEST INTERVAL</b>	<b>IMPORTANT NOTES</b>
Azinphos-M 50W	48 hrs	21 days	3 applications maximum, 14-day intervals
chlorothalonil	48 hrs	50 days	3 applications maximum
Crymax	4 hrs	0 days	
Diazinon	24 hrs	7 days	
Dipel	4 hrs	0 days	
Ferbam (Carbamate WDG)	24 hrs	28 days post mid-bloom	5 applications maximum
Guthion	48 hrs	21 days	3 applications maximum, 14-day intervals
Lorsban	24 hrs	60 days	2 applications maximum
Malathion	12 hrs	3 days	
Mancozeb	24 hrs	30 days	See label for maximum allowable rates
Orthene	24 hrs	75 days	2 applications maximum
Ridomil	12 hrs	45 days	3 applications maximum
Sevin	12 hrs	7 days	
Supanil 720	48 hrs	50 days	3 applications maximum

\*Additional trade names:

**Chlorothalonil:** Bravo 90DG, Bravo 720, Bravo Ultrex, Ensign 720, Supanil 720, Terranil 6L, Terranil 90DF.

**Mancozeb:** Dithane DF, Dithane F45, Dithane M45, Manex II, Manzate DF, Penncozeb DF or WP, Maneb 75DF, Maneb 80, Maneb + Zinc F4.

# Weekly Weather Summary

Keith Arnesen, Agricultural Meteorologist

Temperatures averaged much above normal. Extremes were 101 degrees at Pemberton and Woodstown on the 16th and 47 degrees at Charlotteburg on the 20th. Weekly rainfall averaged 0.28 inches North, 0.09 inches Central, and 0.53 inches South. The heaviest 24 hour total was 0.84 inches at Seabrook on the 18th to 19th. Estimated soil moisture, in percent of field capacity, this past week averaged 67 percent North, 43 percent Central and 41 percent South. Four inch soil temperatures averaged 75 degrees North, 78 degrees Central and 79 degrees South.

The following table contains meteorological information since the start of the growing season March 1st. The table is updated each Monday and the following is an explanation for each column.

Week=total rainfall for the previous 7 days ending Monday morning

Total=total rainfall since March 1st

Dep=departure from normal of rainfall since March 1st. A negative sign indicates below normal and no sign indicates above normal.

Mx=highest temperature for that 7 day period

Mn=lowest temperature for that 7 day period

Avg=average temperature for that 7 day period

Dep=departure from normal of the average temperature for that 7 day period

Total=total number of growing degree units since March 1st

Dep=departure from normal of growing degree units

%FC=percent of field capacity (soil moisture)

## Weather Summary for the Week Ending 8 Am Monday 7/21/97

WEATHER STATIONS	RAINFALL			TEMPERATURE				GDD BASE50		MON
	WEEK	TOTAL	DEP	MX	MN	AVG	DEP	TOT	DEP	%FC
BELVIDERE BRIDGE	.42	14.05	-4.13	94	51	75.	2	1223	-83	65
CANOE BROOK	.65	13.36	-5.91	101	56	81.	7	1490	180	65
CHARLOTTEBURG	.12	16.16	-3.29	95	47	74.	3	1144	80	57
FLEMINGTON	.09	13.78	-4.82	98	48	76.	2	1267	-85	59
LONG VALLEY	missing									
NEWTON	.11	13.93	-3.82	94	48	74.	2	1032	-136	66
FREEHOLD	missing									
LONG BRANCH	.00	14.12	-3.89	98	54	78.	3	1391	11	22
NEW BRUNSWICK	.28	17.70	-.24	97	50	78.	2	1428	-111	70
PEMBERTON	.01	14.41	-3.54	101	52	80.	5	1630	135	20
TOMS RIVER	.00	13.82	-4.58	99	54	79.	5	1432	44	25
TRENTON	.14	17.29	.22	97	49	77.	1	1420	-181	44
CAPE MAY COURT HOUSE	.00	14.41	-1.57	96	59	81.	5	1488	7	19
DOWNSTOWN	.41	13.64	-3.08	98	55	81.	5	1512	-102	41
GLASSBORO	.37	15.81	-1.94	99	57	81.	5	1640	47	38
HAMMONTON	.20	14.18	-3.49	99	54	81.	5	1499	-89	29
POMONA	1.33	16.03	.10	98	55	81.	6	1506	31	66
SEABROOK	.84	15.26	-.90	98	58	82.	6	1624	3	59
ATLANTIC CITY MARINA	.56	11.39	-3.87	95	60	80.	5	1484	92	43
WOODSTOWN	.38	14.16	-3.76	101	56	83	NA	1652	NA	NA
WES KLINE — GDD BASE 40 PINEY HOLLOW										
Last Week	248 (Ending 07/14/97)									
This Week	286 (Ending 07/21/97)									

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

**Use of Trade Names:** Trade names are used in this publication with the understanding that no discrimination is intended and no endorsement is implied. In some instances a compound may be sold under different trade names, which may vary as to label clearances.