

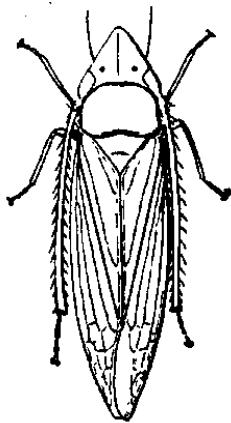
PLANT & PEST ADVISORY

VEGETABLE CROPS EDITION \$1.50

JULY 2, 1997

Pest Notes

Gerald M. Ghidui, Ph.D. Vegetable Entomology



✓ **General:** Potato **leafhoppers** have been abundant in several crops, and can appear in large numbers very quickly. These pests usually must be controlled before the population is large, and most crops have a low threshold for spray treatments for **leafhoppers** (generally around 1 adult per sweep of the net, or 1 **nymph** per 10 leaves or so). Consult the specific crop in the [1997 Commercial Vegetable Production Recommendations](#) for more information on **leafhopper** control.

Spider mite populations have increased in several crops, including eggplant and leeks. The hot weather is favorable to **mite** development, and last week's hot weather was likely part of the reason you may find **mite** populations in vegetable crops. Several new miticides are available for certain crops, including AgriMek, Vendex and Kelthane, and are effective when applied as directed. Some of the older insecticides also still have **mite** activity, including Vydate, dimethoate, and Dibrom 8E.

✓ **Cucurbits:** **Aphids** are starting to appear in many crops, including cucurbits. The populations have the ability to suddenly explode, causing plant damage as they suck the juices from the leaves, and may also transmit diseases (mosaic viruses, etc.). These pests are much easier to control before the population is too large. Effective insecticides, depending on **aphid** species, include Dibrom, Orthene, Lannate, Thiodan, and Metasystox-R. Consult the specific cucurbit crop in the [1997 Commercial Vegetable Production Recommendations](#) for more information concerning **aphid** control.

✓ **Pepper:** **European corn borer** flight activity has remained low for several weeks, indicating that the first generation is likely completed. A small summer generation (univoltine generation) may occur during the next several weeks, followed by the second generation (bivoltine) in early August. It is not likely that the cool wet spring had a delaying effect on the second generation.

✓ **Potato:** Potato **leafhopper** populations are high in southern New Jersey. Potato fields treated with low rates of Admire at planting, or with Provado foliar sprays, should be closely monitored for potato **leafhopper** population buildups; these pests tend to "sneak up" on you and can be very damaging at this time. The threshold of **leafhoppers** is 1 adult per sweep of the net, or 1 **nymph** per 10 leaves. Several insecticides are effective that can be applied to the foliage, including dimethoate, Furadan 4F, Guthion (azinphosmethyl), Imidan, Thiodan or Vydate. Consult label of each for specific rates and restrictions, or refer to page 157 of the [1997 Commercial Vegetable Production Recommendations](#) for New Jersey. □

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Renovating Chandler Strawberries for a 2nd Harvest Season

Peter R. Probasco, Salem County Agricultural Agent

Now that the strawberry harvest is over, it is time to renovate Chandler fields for next year. To do this you should mow off the fields about one inch above the plastic mulch. Now you are ready to thin the field to three crowns by cutting away about half the plant with an asparagus knife. This can be done by cutting down and to the side with the asparagus knife so as not to injure the remaining crowns of the strawberry plants. In research trials at the Rutgers Research and Extension Center in Bridgeton, we have been able to harvest 17,000 pounds of marketable strawberries the second season when they are renovated. The fruit will be slightly smaller than a new field of Chandlers but still very marketable.

One of the main costs in growing Chandler strawberries is the cost of the plants (\$17,400/acre). With proper renovation after the harvest season, a grower can renovate a field for about \$500/acre. This is a low cost way to save a field for the second season. You still need to fertilize, spray for insects, diseases, and weeds, and winter protect with a row cover.

After renovating, you should turn on the drip irrigation for several hours to get the plants growing again. Once new growth has started, a disease spray for leaf spots should be applied (Benlate, Syllit or Topsin M). The renovated field should look fine by September when new fruit buds will begin again. □

Ag Secretary Announces New 'Farm Link' Program

New Jersey Agriculture Secretary Art Brown, Jr., announced that farmers who want to expand their farms or prospective farmers who want to start farming will be able to take advantage of a newly created Farm Link program to be part of the state's Farmland Preservation Program (FPP).

"The Farm Link program will match land owners who have farm property to sell with farmers looking for reasonably priced land," Brown said. Brown chairs the State Agriculture Development Committee which administers the FPP.

"New Jersey farmers often need to expand their operations in order to achieve greater efficiency on the farm but, with our land values so high, it can be difficult to find good agricultural land," Brown said. "We also get many inquiries from people who are ready to retire from farming or have no family members who want to continue to farm but would like to make sure the land stays in production. Farm Link will give us a way to help farmland buyers and sellers get together."

Brown noted that Farm Link can also help people who want to start farming and are looking for affordable farmland since Farm Link will be partnered with the state's Farmland Preservation Program. "We've already preserved almost 38,000 acres of land for agricultural use now and in the future," Brown said. "Since the development rights for this acreage have already been purchased, the land can be sold at the more affordable agricultural value."

In the coming weeks, questionnaires will be distributed to potential farmers as well as retiring farmers and relocating land owners. The information gathered will be kept in a data base and made available at no charge to buyers and sellers.

Farmers who want to sell their land for agricultural use, and want to use Farm Link to locate possible buyers, will be asked to provide information concerning property location, acreage, use restrictions, past and current crop or livestock production.

Both unrestricted farmland and deed-restricted farmland enrolled in the Garden State's permanent farmland preservation program will be tracked through Farm Link.

Ultimately New Jersey's Farm Link program will become an active member of the National Family Farm/Ranch Transition Network, a national clearinghouse for land-link programs that can also offer the state's Farm Link participants to buyers and sellers across the country.

Brown urged people to contact the Farmland Preservation Program at 609-984-2504 if they have agricultural land to sell or are looking for agricultural land to buy. □

Vegetable Crops Diseases

Stephen A. Johnston, Ph.D., Plant Pathology

✓ **Bean:** Be sure to apply Ridomil Gold 4E in a 7-inch band over the row after seeding for the control of **damping-off** caused by **Pythium**. The warm soil temperatures and soil moisture resulting from irrigation or summer rainfalls can result in severely reduced stands if not treated.

✓ **Cole crops: Alternaria leaf spot** is present in several fields throughout the state at this time. Maintain applications of Bravo or maneb on a 7-10 day schedule for control.

✓ **Cilantro: Bacterial leaf spot** is present in some fields at this time. Avoid working in the field while the foliage is wet to reduce spread.

✓ **Carrot:** Maintain applications of Bravo every 10 days for control of **leaf blights**.

✓ **Cucumber:** Maintain applications of Bravo + Benlate or Topsin M every 7-10 days for the control of **anthracnose**.

✓ **Eggplant: Phytophthora blight** is present in some fields at this time. Infected plants are completely wilted, and a dark lesion is present at the base of the plant. Improve the drainage within the field, and maintain applications of Ridomil Gold 30 and 60 days after transplanting. **Lightning damage (Franklin's disease**, named after Ben and his kite flying exploits) was observed in one field this week. Symptoms include the death of numerous plants within a circular area of the field. Stems are flattened and a longitudinal slice through the flattened stem will expose a ladder-like partitioning of the pith tissue. Expect similar situations in other crops following severe summer thunderstorms.

✓ **Muskmelon:** Maintain applications of Bravo or mancozeb every 7-10 days for the control of **Alternaria leaf blight**.

✓ **Parsley: Septoria leaf spot** has appeared this week in South Jersey. Infected leaves contain numerous, small, circular, tan lesions that have several, black specks in the center. There are no fungicides labeled for control of this disease. After the harvest period destroy the crop by burying the debris in the soil via plowing, and do not plant parsley in the same field for at least 2 years.

✓ **Pepper: Phytophthora blight** continues to result in losses in many plastic mulch/drip irrigated fields. The disease is worse in fields that have a short rotation away from peppers, cucurbits and eggplants, and in fields with poor drainage. Improve the drainage within fields, and apply Ridomil Gold via drip irrigation every 30 days.

✓ **Pumpkin & squash (winter):** When vines begin to run, it is time to begin fungicide applications for **foliar diseases**. Early applications should be made with Bravo,

and then add a copper fungicide with Bravo from mid season until the end of the season.

✓ **Squash (summer): Phytophthora blight** continues to spread in several fields at this time. Infected plants completely wilt and die. Improve the drainage within the field, and maintain applications of Ridomil/Bravo every 14 days.

✓ **Tomato:** Now is the time to begin fungicide applications on early fields. The first scheduled application should begin when crown fruit are 1/3 their final size, and applications should be repeated every 7 days. Bravo is the standard fungicide of choice for use; however, for 1997 a new fungicide, Quadris, is labeled for tomatoes. Quadris is an excellent fungicide for control of **foliar diseases (early blight & Septoria leaf spot)**. There is a 7-day preharvest interval with Quadris; therefore, early applications to fields can be made with Quadris, and as harvest approaches switch to Bravo. For resistance management, do not apply more the 4 consecutive applications of Quadris. **Timber rot** is present in some fields in North Jersey at this time. Infected plants are completely wilted with a tan lesion near the soil line. Within the lesion are numerous, black sclerotia. No control is necessary at this time. Benlate + a spreader sticker need to be applied shortly after transplanting and 7 days later in future plantings. **Tomato spotted wilt virus** infected plants are present in fields where transplants were produced in the same greenhouse as ornamental plants such as impatiens. Infected plants are stunted, and contain numerous dark lesions. The virus is spread by **thrips**; therefore, maintain insecticide applications to prevent build up of **thrips**. □

Vegetable IPM Update

Kristian E. Holmstrom, Vegetable IPM Program Associate and Sally Walker, Vegetable IPM Program Associate

◆ Tomato

Potato leafhopper levels have increased in some plantings in the northern counties. As yet, damage resulting from these infestations has not appeared. **Potato leafhopper** is capable of damaging other crops, so careful attention should be paid to populations in tomatoes. **Leafhoppers** may be detected by shaking the tomato foliage.

◆ Sweet Corn

Corn earworm (CEW) remain sporadic and light around southern and central New Jersey. The highest nightly **CEW** blacklight trap catches are as follows:

Allentown	1	Georgetown	1	Pemberton	1
Burlington	1	Green Creek	1	Sewell	1
Egg Harbor	1	Hammonton	1	Tabernacle	1
Elmer	1	New Egypt	1	Tansboro	1

The first adult flight of **European corn borer (ECB)** is in general decline around the state although adult populations linger in central New Jersey. As the adult catches decrease, feeding in whorl and pre-tassel stage corn remains high. Plantings with **ECB** infestations in the pre-tassel stage should be treated as they pass into the full tassel stage to maximize insecticide contact with larvae. The highest average nightly **ECB** blacklight trap catches are as follows:

Manville	11	Indian Mills	6	Ringoes	5
Hopewell	8	Medford	6	Allentown	3
Cranbury	7	Ellisdale	5	Fishing Creek	3
Flagtown	6	Pemberton	5	Hackettstown	3

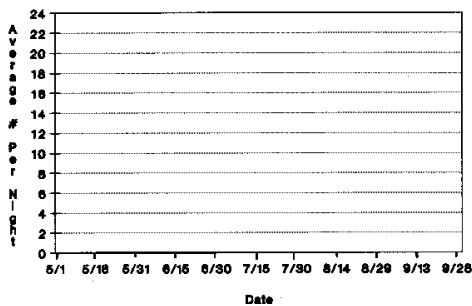
◆ General Sweet Corn Spray Schedule

Silking stage: Central 5 - 6 days*

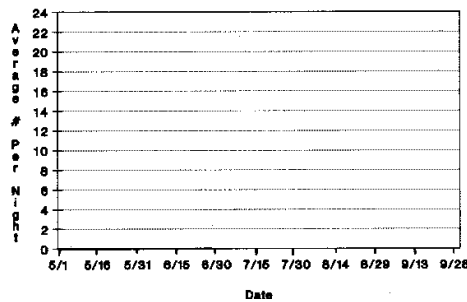
South 5 - 6 days*

*These are general spray recommendations for large areas of the state. Growers can increase or decrease the intervals based on their own local situations.

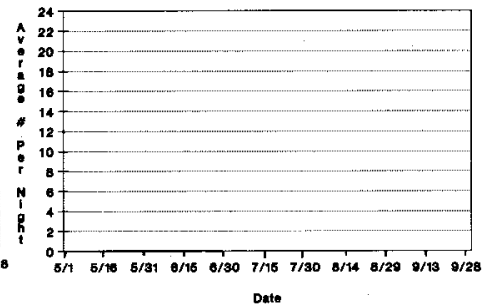
Northern NJ- CORN EARWORM (CEW)
Blacklight Trap Catches



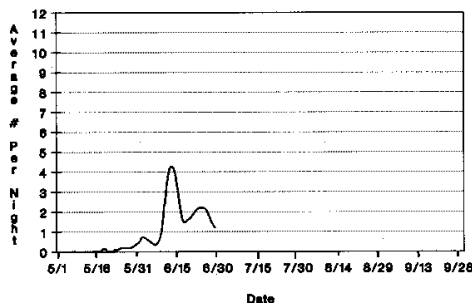
Central NJ- CORN EARWORM (CEW)
Blacklight Trap Catches



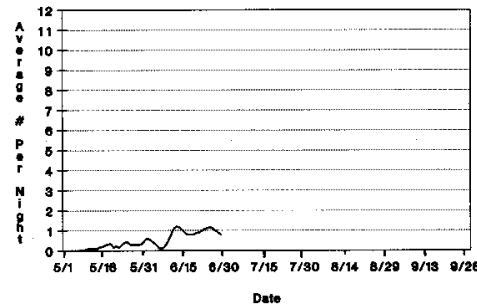
Southern NJ- CORN EARWORM (CEW)
Blacklight Trap Catches



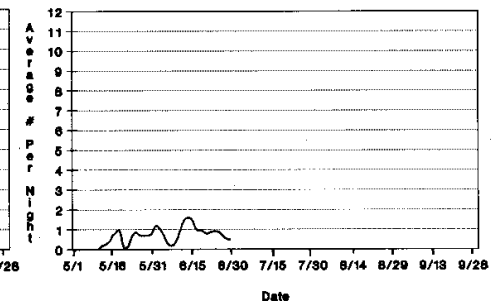
Northern NJ- EUROPEAN CORN BORER (ECB)
Blacklight Trap Catches



Central NJ -EUROPEAN CORN BORER (ECB)
Blacklight Trap Catches



Southern NJ -EUROPEAN CORN BORER (ECB)
Blacklight Trap Catches



Weekly Weather Summary

Keith Arnesen, Agricultural Meteorologist

Temperatures averaged much above normal. Extremes were 99 degrees at Toms River on the 29th and 50 degrees at Newton on the 28th. Weekly rainfall averaged 0.10 inches North, 0.01 inches Central, and 0.28 inches South. The heaviest 24 hour total was 1.34 inches at Cape May Courthouse on the 26th to 27th. Estimated soil moisture, in percent of field capacity, this past week averaged 69 percent North, 51 percent Central and 37 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 6/30/97

WEATHER STATIONS	RAINFALL		TEMPERATURE		GDD BASE50		MON			
	WEEK	TOTAL	DEP	MX	MN	AVG	DEP	TOT	DEP	%FC
BELVIDERE BRIDGE	.16	11.50	-3.75	92	55	72.	2	747	-123	58
CANOE BROOK	.02	12.25	-4.12	96	55	75.	4	923	84	61
CHARLOTTEBURG	.06	14.81	-1.77	91	53	72.	4	691	34	58
FLEMINGTON	.05	13.30	-2.35	93	53	73.	2	749	-121	62
LONG VALLEY	.11	14.25	-2.49	90	52	70.	2	671	-48	63
NEWTON	.20	12.31	-2.64	90	50	70.	1	576	-161	70
FREEHOLD	MISSING									
LONG BRANCH	.00	14.12	-1.26	96	58	75.	4	862	-30	25
NEW BRUNSWICK	.04	16.09	1.12	94	55	74.	0	886	-138	67
PEMBERTON	.00	13.76	-1.10	97	55	77.	5	1062	65	34
TOMS RIVER	.00	13.05	-2.20	99	55	76.	4	885	-4	32
TRENTON	.00	15.95	1.99	94	55	75.	1	900	-173	46
CAPE MAY COURT HOUSE	1.34	13.83	.28	94	60	76.	4	927	-43	57
DOWNSTOWN	.05	12.48	-1.33	95	56	76.	3	946	-145	25
GLASSBORO	.00	15.14	.17	97	60	79.	6	1038	-32	29
HAMMONTON	.04	13.32	-1.25	98	55	77.	4	930	-133	17
POMONA	.13	14.39	1.19	96	56	76.	4	934	-41	36
SEABROOK	.30	13.64	.35	97	59	78.	5	1025	-73	32
ATLANTIC CITY MARINA	.13	10.42	-2.20	96	65	78.	7	927	21	33
WOODSTOWN	.00	13.46	-1.52	98	55	77	NA	1049	NA	NA
WES KLINE — GDD BASE 40 PINEY HOLLOW										
Last Week 236 (Ending 06/23/97)										
This Week 257 (Ending 06/30/97)										

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PLANT & PEST ADVISORY

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