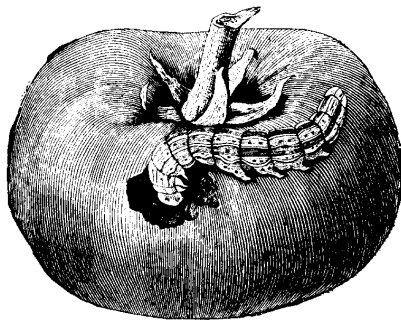


PLANT & PEST ADVISORY

VEGETABLE CROPS EDITION \$1.50

AUGUST 6, 1997



INSIDE

IPM Update	1
Twilight Meeting	2
Pest notes	3
Veg crops Diseases.....	3

IPM Update

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

◆ Cole Crops

Cabbage looper adults are now being found in blacklight traps in the south. Larvae are present in fields through central and southern New Jersey. The three main worm pests, **cabbage looper (CL)**, **diamondback moth (DBM)** and **imported cabbageworm (ICW)**, are all active at this time. It is important to check the youngest leaves, the undersides of all leaves, and beneath the heads for larvae.

◆ Tomatoes

As **tomato fruit worm (corn earworm)** activity increases, tomato fruit will be at risk for larval damage. Pheromone traps indicate low populations in close proximity to tomatoes. For more detailed information on **corn earworm (CEW)** population activity, see the sweet corn section.

The incidence of bacterial diseases in Burlington and Hunterdon County tomato plantings has increased recently after heavy rains. Scouting or other activity in infected fields should be avoided when foliage is wet.

Blacklight trap catches of **stinkbug** in Hunterdon and Morris Counties have decreased since last week. Cooler evening temperatures may be responsible for this reduction. **Stinkbug** injury on ripe fruit may be found at this time.

◆ Pepper

The second generation of **European corn borer (ECB)** is active every where with localized hot spots (see sweet corn section). **Fall armyworm (FAW)** adults have been active in most of the southern county pheromone traps located in peppers, but **Beet armyworm (BAW)** and **CEW** adult counts remain low. Note that generally young **ECB** and **FAW** larvae will enter the pepper at the cap end. Older **ECB**, **FAW**, **BAW**, and **CEW** will enter anywhere on the pepper leaving behind a large entrance hole. Bacterial soft rotted fruit is an indication of a worm infestation. While **ECB** is the main threat to fruit at this time, it will be necessary to re-evaluate insecticide selection as **FAW** and **CEW** activity increases.

◆ Sweet Corn

CEW activity is slowly increasing throughout the state. Light catches are occurring with more frequency in all counties north of

SEE IPM ON PAGE 2

Burlington. In Burlington and southern counties, **CEW** activity is greater. Catches in Atlantic County and Burlington County are consistently higher. The highest nightly **CEW** blacklight trap catches are as follows:

Egg Harbor 2	Fishing Creek 1	Morristown 1
Pemberton 2	Folsom 1	Pedricktown 1
Allentown 1	Manalapan 1	Phillipsburg 1
Farmingdale 1	Milltown 1	Rosenhayn 1

The second generation **ECB** flight is under way all around the state. Particularly high catches are occurring throughout Salem, Burlington, and parts of Morris, Warren, and Hunterdon counties. Host crops are at high risk for larval infestation at this time.

The highest nightly **ECB** blacklight trap catches are as follows:

Shirley 109	Indian Mills 10	Hackettstown 9
Cohansey 27	Porchtown 10	Folsom 8
Elmer 23	Chester 9	Little York 8
Allentown 23	Fishing Creek 9	Woodstown 8

FAW infestations are now occurring throughout the state. While coastal counties typically get heavier infestations, economic action thresholds are now being reached as far north as Warren County. Treat plantings when 12% of plants are infested with **FAW** and/or **ECB**.

Western corn rootworm beetles are easily found feeding on plants at this time. This is not a significant problem until corn silks are present. At this time, the silking schedule for **CEW** is usually sufficient to prevent clipping of the silks.

◆ **General Sweet Corn Spray Schedule**

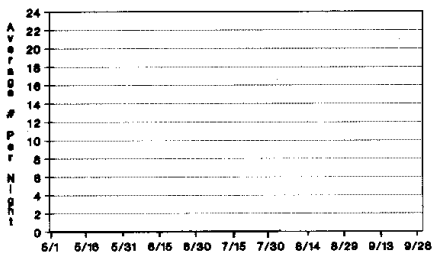
Silking stage: Central 4 - 5 days*

South 3 - 4 days*

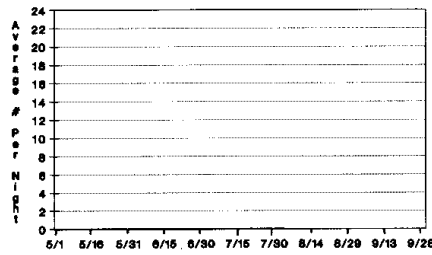
North 5 - 6 days*

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

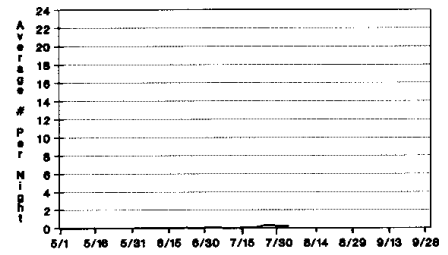
Northern NJ- CORN EARWORM (CEW)
Blacklight Trap Catches



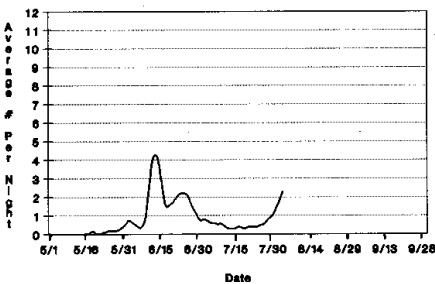
Central NJ- CORN EARWORM (CEW)
Blacklight Trap Catches



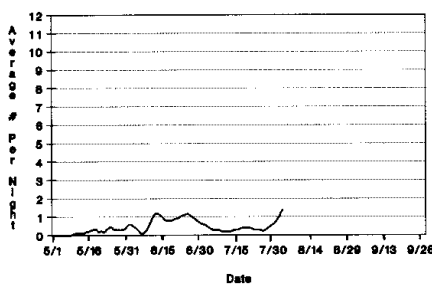
Southern NJ- CORN EARWORM (CEW)
Blacklight Trap Catches



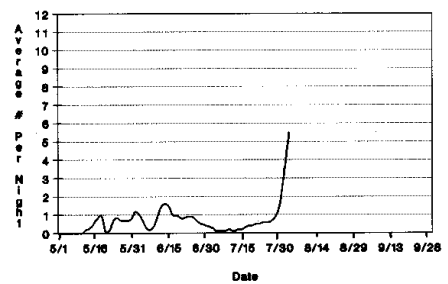
Northern NJ- EUROPEAN CORN BORER (ECB)
Blacklight Trap Catches



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



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



Vegetable Twilight Meeting

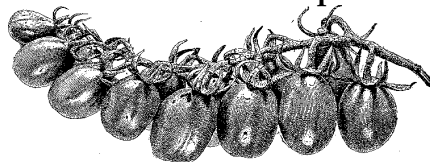
Rutgers Agricultural Research & Extension
Center (RAREC)

Upper Deerfield, New Jersey

Date: August 19, 1997

Time: Plots open 5:30 p.m.

Welcome 6:30 p.m.



- ❖ Round tomato varieties on stakes
- ❖ Plum tomato varieties on stakes
- ❖ Processing tomato varieties
- ❖ Bacterial Leaf Spot and Phytophthora resistant pepper varieties
- ❖ Pepper disease management plots

Discuss: Insect, disease, and cultural problems with Extension Specialists and Agents.

For more information, call RAREC at (609) 455-3100.

Pest Notes

Gerald M. Ghidui, Ph.D., Vegetable Entomology

✓ **General: Spider mite** populations are still high in several crops, with reports of **mite** damage on leeks, sweet corn, pepper and eggplant. **Spider mite** populations are much more difficult to control after the population reaches a high level (many eggs, adults, and nymphs; webbing begins, and plants discolor from **mite** attack). Control these pests at the first signs of **mite** damage (stippling or silvering of leaves, etc.).

✓ **Corn:** Low numbers of **corn earworm moths** and **fall armyworm moths** are being caught in the black light traps at the research center (average of 1-2 per night of each). This number may remain low for awhile, especially if we get the cool nights that meteorologists are predicting for the remainder of this week. At any rate, monitor these pests in the newsletters for increasing numbers of **moths** in the light traps.

✓ **Eggplant: Spider mites** have caused injury to eggplant fields throughout southern and central New Jersey. **Spider mite** populations increased rapidly during the recent weeks of hot weather, and if left unchecked will cause leaf drop, severe leaf injury and yield loss. Several miticides are labeled for use on eggplant, including Vendex, Dibrom, Vydate and Metasystox-R. We have had reports that Vydate, MSR and Dibrom have not been very effective for **mites** on eggplant.

Also, **leafhoppers** have caused leaf injury and "hopper burn" damage to eggplant leaves, with the typical yellowing of the leaf edges first, followed by drying and browning of the leaves. If damage appears, look for **leafhopper** adults and nymphs, usually on the undersides of the leaves. Effective insecticides for **leafhoppers** on eggplant are Guthion, Provado, Thiodan and Vydate. Consult label for rates and restrictions of these materials (Note: if Admire 2F was applied to transplants in the spring, do not use Provado at this time).

✓ **Pepper:** European **corn borer moth** activity has increased in pepper fields, based on the light trap at the Rutgers Agricultural Research & Extension Center. Last week only 5 **moths** per night were being caught in the black light trap, but the average has increased to almost 9-10 **moths** per night since last weekend. Peppers should be protected with foliar applications of an insecticide listed in the [1997 Commercial Vegetable Production Recommendations for New Jersey](#) for European **corn borer**. This is likely the second generation of the bivoltine **corn borer**, and the most damaging **borer** generation to pepper. □

Vegetable Crops Diseases

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

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

✓ **Cole crops: Clubroot** is present in some fields at this time. No control measures are available for the current crop. In future plantings be sure the soil pH is 7.0 or above; provide adequate drainage in the field; produce the crop on raised beds; and apply Terraclor as a preplant or transplant water treatment. Maintain applications of Bravo or maneb on a 7-10 day schedule for the control of **Alternaria leaf spot**.

✓ **Corn (Sweet):** Scout fields for the presence of **rust**. If **rust** is observed prior to the whorl stage of growth, apply a fungicide for control.

✓ **Cucumber:** Once vines begin to run, apply Bravo + Benlate or Topsin M every 7-10 days for control of **anthracnose**.

✓ **Eggplant:** Beginning 2 weeks after the last Ridomil Gold application, apply a copper fungicide + maneb every 7-10 days for control of the aerial phase of **Phytophthora fruit rot**.

✓ **Muskmelon: Fusarium wilt** is present in some at this time. Infected plants completely wilt and die. No control measures are available at this time. In future plantings, grow resistant varieties, 'Athena' and 'Saticoy'. Maintain applications of Bravo or mancozeb every 7 days for the control of **Alternaria leaf blight**.

✓ **Pepper: Bacterial leaf spot** is present in some fields at this time. Infected plants have numerous brown spots on leaves, and leaves fall from the plants. Do not work in the fields while the foliage is wet, and apply a foliar spray of a copper fungicide + maneb every 7 days for control. Two weeks after the last Ridomil Gold application, apply a copper fungicide + maneb every 7 days for control of the aerial phase of **Phytophthora blight**.

✓ **Pumpkin & Winter Squash:** Maintain applications of Bravo + a copper fungicide every 7-10 days for control of **foliar & fruit diseases**.

✓ **Squash (Summer):** Maintain applications of Ridomil/Bravo every 14 days for the control of **Phytophthora blight**.

✓ **Tomato:** Maintain applications of Bravo or Quadris every 7 days for the control of **leaf spots & fruit rots**. **Bacterial canker** is present in some fields at this time. Infected plants have leaves with marginal necrosis present. Do not work in the fields while the foliage is wet, and apply Bravo C/M every 7 days for control.

✓ **Watermelon:** Once vines begin to run, apply Bravo + Benlate or Topsin M every 7 days for the control of **anthracnose**. □

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PLANT & PEST ADVISORY

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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 of your County.

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