

# PLANT & PEST ADVISORY

VEGETABLE CROPS EDITION \$1.50

SEPTEMBER 17, 1997



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## Vegetable Crops Diseases

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

✓ **Bean:** Observe snap bean fields for the presence of **rust**. Once observed, apply Bravo as a foliar spray every 7 days. For lima and snap bean fields, if the soil has been wet 6-10 days before bloom, a fungicide needs to be applied during early bloom and repeated in 7 days for control of **white mold (Sclerotinia)**. In addition to those fungicides listed in the Commercial Vegetable Production Recommendations, Ronilan has a label for snap beans only for this use pattern. Apply Ronilan DF at 1 lb/A. **Ozone** damage is present in fields at this time. Damaged plants have necrotic flecks over the entire upper surface of older leaves. This is the result of the poor air quality experienced in the region during August.

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

✓ **Cole Crops:** Maintain applications of Bravo every 7-10 days for the control of **downy mildew** and **Alternaria leaf spot**.

✓ **Cucumber:** **Powdery mildew** and **anthracnose** are prevalent on susceptible varieties at this time. Maintain applications of Bravo + Benlate on a 7-day schedule for control. In fields with a history of **Phytophthora blight**, add a copper fungicide.

✓ **Eggplant:** Maintain applications of a copper fungicide + maneb with a spreader sticker every 7-10 days for the control of **Phytophthora** and **Phomopsis fruit rots**.

✓ **Leek:** Maintain applications of Bravo every 10 days for the control of **purple blotch**.

✓ **Lettuce:** Shortly after thinning, apply Ronilan or Rovral as a directed spray to the base of plants and surrounding soil for control of **drop**. Repeat in 10 and 20 days. Rovral will also provide control of **bottom rot**.

✓ **Pepper:** Maintain applications of a copper fungicide + maneb with a spreader sticker every 7-10 days for the control of **Phytophthora** and **anthracnose**.

✓ **Potato (Sweet):** **Scurf** is present in some fields being harvested at this time. Infected potatoes have a brown russetting of the root surface. The disease develops from infected "slips" at transplanting and is most prevalent in wet, heavy soils with pH higher than 5.5. Fields with infected roots present should be harvested as soon as possible to prevent spread within the field. Potatoes should be properly cured soon after harvest.

SEE DISEASES ON PAGE 2

✓ **Pumpkin & Squash (Winter):** Maintain applications of Bravo + a copper fungicide every 7-10 days for control of **foliar** and **fruit diseases**. In fields where **Phytophthora blight** is present, remove infected plants from the field or disc infected plants into the soil to prevent spread of the disease to the rest of the field.

✓ **Spinach:** Observe fields for the presence of **white rust**. Once observed in young fields, apply Kocide LF as a foliar spray and repeat every 7 days. In fields closer to harvest, apply Aliette as a foliar spray. Kocide LF can cause **phytotoxicity** (necrotic flecking of older leaves) during warm weather.

✓ **Squash (Summer):** Apply Ridomil/Bravo as a foliar spray every 14 days for the control of **Phytophthora blight**. Apply Bravo alone on alternate 14 days for control of **scab**, and suppression of **powdery mildew**.

✓ **Tomato: Bacterial speck** is present in some fields at this time. Infected leaves have numerous, black, angular shaped lesions present. Additionally, margins of infected leaves are black. Applications of a copper fungicide + mancozeb or Bravo C/M will assist in reducing spread. Maintain applications of Bravo every 7 days for control of **foliar** and **fruit diseases**.

✓ **Watermelon: Ozone** damage was severe this year on icebox types. Leaves of damaged plants turn black, and the entire plant dies. □

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## Strawberries on Plastic

*Peter R. Probasco, Agricultural Agent*

Our spacing research trials again showed the benefits of spacing rows further apart (18 inches), but we found you still need a high plant population (17,400) to maintain yields. The best treatment for growers would be 12 inches down the row by 18 inches apart between rows. Wind protection is still a critical factor in obtaining high yields so select fields with woods on the westerly side.

After planting new plugs this month, be sure and apply sprinkler irrigation on sunny hot days until the roots are established. A plug will not always survive on just drip irrigation the first week after planting. Devrinol 50DF and Sinbar 80WP should be sprayed on the middles after planting to control weeds. □

## New Jersey Farmer's Direct Marketing Conference

*Ramu Govindasamy, Specialist in Marketing*

Rutgers Cooperative Extension and the New Jersey Farmer's Direct Marketing Association proudly announce the 1997 New Jersey Farmer's Direct Marketing Conference. Direct marketing continues to be a successful method of distributing agricultural products as evidenced by the increasing number of farmer's markets in central New Jersey. The direct market conference provides an opportunity for direct marketers to exchange ideas and marketing strategies with one another as well as a chance to interact with policy makers regarding the regulations they must conform to. This year, the conference will be held on November 5th, 1997.

A wide variety of presentations have been selected with appeal to direct market professionals, farm market operators, farm stand owners, and food marketers. The featured topics include: how to attract customers, agritourism, selling processed food products, labor, insurance and liability issues, consumer response to IPM grown produce, and a question and answer period. Speakers and presenters include direct marketers, New Jersey Department of Agriculture and Department of Labor personnel, Farm Bureau personnel and Rutgers Cooperative Extension specialists. Updates of local marketing activities such as the North Jersey Farmer's Market Council, and the Jersey Fresh Program will also be presented. The conference is also sponsored by the New Jersey Department of Agriculture (NJDA), the North Jersey Farmer's Market Council, The New Jersey Farm Management Program and the New Jersey Farm Bureau. This conference is certified for Production Efficiency (PEG) credits. The NJDA requires all PEG recipients to attend a minimum of three hours of farm business management training to satisfy special grant conditions. Date: November 5, 1997

Location: Quality Inn, 1850 Easton Avenue, Exit 6 off Rt. 287, Somerset, NJ 08873

Prices: Early Registration (before Oct. 14) - \$29.00  
Early Registration for PEG applicants - \$44.00  
After Oct. 24: At the Door Registration - \$34.00  
At the Door Registration for PEG Applicants - \$49.00

Registration includes admission and lunch. Brochures and registration packet will be ready on September 22, 1997. For more information please contact Dr. Ramu Govindasamy (732) 932-9171, extension 25. □

# Vegetable IPM Update

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

## ◆ Beans

**European corn borer (ECB)** activity in the southern counties has been high for the past two weeks. See the [Commercial Vegetable Recommendations Manual](#) for more details on timing and control of this pest.

## ◆ Lettuce

Blacklight trap counts of **corn earworm (CEW)** indicate possible problems for lettuce in southern counties. Scout fields for larval activity, particularly prior to head formation.

## ◆ Pepper

**CEW**, **ECB**, and **fall armyworm (FAW)** adult counts are moderate to high in most of the southern traps. Late plantings are most at risk for infestation by these pests. **Beet armyworm (BAW)** adult counts have also increased, so check fields for the presence of this pest. **BAW** activity can be detected by looking for tan, oblong, fuzzy egg masses on the undersides of the leaves or by checking foliage for larvae. The other fruit pests, **CEW**, **ECB**, and **FAW**, are difficult to detect until the fruit is damaged.

## ◆ Sweet Corn

For the past two weeks, **CEW** adult counts have been moderate to high in most of the traps in the southern counties. Although some of the trap counts suggest a 2-day silking spray schedule, a 3-day schedule should be sufficient considering the cooler nights. In the north and central regions, **CEW** activity continues to be unusually low with many traps indicating spray schedules less frequent than three days.

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

Woodstown	28	Shirley	17	Porchtown	12
Shiloh	21	Medford	15	Elmer	11
Cedarville	17	Cohansey	13	Rosenhayn	8
Hammonton	17	Egg Harbor	12	Green Creek	8

**ECB** adult activity has also been moderate to high in the southern counties with some particularly high counts occurring last week. In central and northern counties, **ECB** remains low. At this time, most corn should be in the silking stage and sprays for **CEW** should control ear infestation by **ECB**.

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

Cohansey	111	Rosenhayn	12	Sewell	7
Shirley	51	Porchtown	11	Ellisdale	6
Woodstown	36	Shiloh	9	Becket	5
Elmer	13	Allentown	8	Georgetown	5

General Sweet Corn Spray Schedule

Silking stage:	North	3 - 4 days*
	Central	3 days*
	South	3 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.

# Pest Notes

Gerald M. Ghidui, Ph.D. Vegetable  
Entomology

✓ **General:** The **fall armyworm** and **European corn borer** adult populations have declined, based on catches of the moths in the black light traps at the Rutgers Agricultural Research & Extension Center. Fewer than 2 moths of each are caught per night, likely because of the cool evening temperatures. The **European corn borer** population should decline anyway at this time as the second generation nears an end, but the **fall armyworm moth** activity may still increase as evening temperatures increase. Almost no **beet armyworm moths** are being trapped at this time.

✓ **Cabbage:** High numbers of **diamondback moth** adults, larvae, and pupae have been reported in cabbage fields in Cumberland, Salem, and Monmouth Counties. These pests can cause severe damage if left unchecked. **Diamondback moth** larvae are much easier to control when they are still small and the population is low. Larger larvae and high populations are very difficult to control, so monitor the fields closely and treat cabbage when 20% of the plants are infested. If heads have formed, treat when 5% of the plants are infested. Southern states report that effective sprays include Thiodan and *Bt* rotations, or a pyrethroid and *Bt* rotation. Do not overuse any one class insecticide for **diamondback moth** control. Effective *Bt* sprays include Javelin, Xentari, and Match. □

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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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