

PLANT & PEST ADVISORY

VEGETABLE CROPS EDITION \$1.50

JULY 2, 2008



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Vegetable Disease Update

Andy Wyenandt, Ph.D., Specialist in Vegetable Pathology
and Wesley Kline, Ph.D., Cumberland County Agricultural
Agent

✓ **Cucurbits – Angular leaf spot** - Symptoms are distinct and easily diagnosed. Small water-soaked **lesions** develop on leaves and expand until they are **delimited by larger secondary veins** in leaves resulting in angular lesions. After time these lesions turn brown and infected tissue drops-off resulting in ‘shotholes’. Angular leaf spot can be spread by splashing rain, insects, on the hands of workers and on farm machinery. Working in the field when the foliage is wet favors the spread of the disease. The disease can also be spread by blowing wind and in irrigation water. Best management of Angular leaf spot begins with clean-seed and planting in fields that has been out of cucurbit production for at least 2 years. Cultivating when foliage and soil are wet and irrigating with pond water should be avoided. There are cucurbit varieties with resistance. Add label rate of fixed copper + mancozeb to fungicide maintenance program and repeat applications every 7 days.

✓ **Cucurbits – Bacterial Wilt** – Symptoms of Bacterial wilt will vary depending on cucurbit crop. In general, plants may wilt during the day in hot weather and ‘recover’ during cooler parts of the evening and morning. Margins and interveinal areas of leaves become necrotic which cause leaves to appear ‘scorched’. Look for beetle feeding scars on cotyledons and stems of young plants. Healthy green plants will turn chlorotic (yellow) with time and infected plants will eventually collapse and die exposing fruit to sunscald injury. Cutting through stem tissue at the base of infected plants often reveals a coppery-tan color where the bacterium causes the vascular tissue to ‘plug up’ (see VDOW). Control of Bacterial wilt begins with controlling striped and spotted cucumber beetles which vector the pathogen early in the growing season as plants emerge. Late-season beetle control will remain important as fruit begins to mature. Late-season beetle feeding may cause injury to stems ruining aesthetic quality. For more information on cucumber beetle and Bacterial wilt control please see the *2008 New Jersey Commercial Vegetable Production Recommendations Guide*.

✓ **Cucurbits – Powdery mildew has been found on zucchini!** In a typical year, powdery mildew occurs from mid-July until the end of the season. Symptoms typically begin on older, lower leaves and can spread rapidly under dry, humid conditions. **Control of Powdery**

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mildew begins with regular scouting for symptoms and weekly fungicide applications. Begin a fungicide program when PM has been found in region and/or when 1 lesion is found on the underside of 45 leaves. Fungicide resistance management of the fungus which causes Powdery mildew is critical in the mid-Atlantic region! Fungicides with a high risk for resistance development, such as the strobilurin (Pristine, FRAC code 11) and Nova or Procure (FRAC code 3), should be tank mixed with a protectant fungicide such as chlorothalonil (M5) and rotated with fungicides of a different chemistry.

For control of cucurbit Powdery mildew in: Pumpkin and winter squash fields:

Alternate:

Nova or Rally (myclobutanil, 3) at 5 oz 40WP/A plus chlorothalonil--2-3 pt 6F/A, or Procure (triflumizole, 3) at 4-8 oz 50WS/A plus chlorothalonil--2-3 pt 6F/A

With:

Micronized Wettable Sulfur (M2) at 4 lb 80W/A, sulfur may injure plants especially at high temperatures. Certain varieties can be more sensitive. Consult label for precautions, or

With a tank mix containing:

chlorothalonil plus Pristine (pyraclostrobin + boscalid, 11 + 7) at 12.5-18.5 oz 38WG/A

If Powdery mildew has become well established in the mid- to late part of the season, only apply protectant fungicides such as chlorothalonil or sulfur.

Summer squash and cucumber fields:

Alternate:

Nova or Rally (myclobutanil, 3) at 5 oz 40WP/A plus chlorothalonil at 2-3 pt 6F/A, or Procure (triflumizole, 3) at 4-8 oz 50WS/A plus chlorothalonil at 2-3 pt 6F/A

With a tank mix containing:

chlorothalonil plus Pristine (pyraclostrobin + boscalid, 11 + 7) at 12.5-18.5 oz 38WG/A

In Muskmelon and Watermelon fields:

Alternate:

Nova or Rally (myclobutanil, 3) at 5 oz 40WP/A plus chlorothalonil at 2-3 pt 6F/A, or Procure (triflumizole, 3) at 4-8 oz 50WS/A plus chlorothalonil at 2-3 pt 6F/A

With a tank mix containing:

Quintec (quinoxifen, 13) at 6 oz 2.08F/A plus chlorothalonil at 2-3 pt 6F/A

chlorothalonil plus Pristine (pyraclostrobin + boscalid, 11 + 7) at 12.5-18.5 oz 38WG/A

For more information on control of Powdery mildew of cucurbits please see the *2008 New Jersey Commercial Vegetable Production Recommendations Guide*.

✓ **Eggplant – Phomopsis blight** – can affect all above ground portions of the plant. Symptoms include well-defined circular lesions on infected leaves with **diagnostic black fruiting bodies** developing within the lesion. If disease progresses infected leaves may turn yellow and die. Fruit lesions are similar to leaf infections,

but lesions may become much larger causing fruit to become soft. Wet weather and high temperatures favor Phomopsis blight development. Control of Phomopsis blight begins with scouting and weekly preventative fungicide applications. Alternate one of the following: azoxystrobin (FRAC group 11, Amistar 80WDG at 2 to 5 oz/A or Quadris at 6.2 to 15.4 fl oz 2.08F/A), or Flint (trifloxystrobin, 11) 50WDG at 2 to 4 oz/A, or Cabrio (pyraclostrobin, 11) 20EG at 8 to 12 oz/A with maneb (M3) 75DF at 1.5 to 2 lb/A or OLF.

✓ **Pepper – Anthracnose** - Symptoms of fruit infection include sunken, circular spots which develop blackish-tan to orange concentric rings as lesions develop. Lesions on stems and leaves appear as grayish-brown spots with dark margins and can easily be overlooked. Control of Anthracnose begins with using clean-free seed and/or transplants. A three-year crop rotation with non-solanaceous crops is recommended. After the harvest season, pepper fields should be disced and plowed under thoroughly to bury crop debris. Beginning at flowering and as small fruit begin to set, alternate maneb (M3) at 1.5 to 3 lb/A 75DF with one of the following FRAC code 11 fungicides: azoxystrobin (Quadris at 6.2 to 15.4 fl oz 2.08F/A), or Flint (trifloxystrobin) 50WDG at 2 to 4 oz/A, or Cabrio (pyraclostrobin) 20EG at 8 to 12 oz/A or Tanos (famoxadone + cymoxanil, 11 + 27) at 8 to 20 50WDG/A.

✓ **Pepper - Bacterial leaf spot** – Symptoms of Bacterial spot on pepper leaves include small, brown water-soaked lesions that turn brown and necrotic in the centers. Spots may coalesce and form large blighted areas on leaves and premature defoliation can occur. On fruit, brown lesions can form which have a roughened, cracked wart-like appearance. High temperatures, high relative humidity and rainfall favor Bacterial spot development. Loss from Bacterial spot can be reduced somewhat by maintaining high levels of fertility, which will stimulate new growth. Applying a fixed copper (M1) at labeled rates plus maneb (M3) at 1.5 lbs 75DF/A or 8 to 10 oz Tanos (famoxadone + cymoxanil, 11 + 27) may help suppress spread. For more information on control of Bacterial leaf spot of pepper please see the *2008 New Jersey Commercial Vegetable Production Recommendations*.

✓ **Pepper – Phytophthora blight is beginning to show up in fields around south Jersey!**

For control of the crown rot phase of blight:

Apply 1 pt Ridomil Gold 4E/A or 1 qt Ultra Flourish 2E/A (mefenoxam, 4). Apply broadcast prior to planting or in a 12- to 16-inch band over the row before or after transplanting. **Make two additional post planting** directed applications with 1 pint Ridomil Gold 4E or 1 qt Ultra Flourish 2E per acre to 6 to 10 inches of soil on either side of the plants at 30-day intervals. Use formula in the "Calibration for Changing from Broadcast to Band Application" section of *Calibrating Granular Application*

SEE PEPPERS ON PAGE 3

Equipment to determine amount of Ridomil Gold needed per acre when band applications are made.

When using polyethylene mulch, apply Ridomil Gold 4E at the above rates and timing by injection through the trickle irrigation system. Dilute Ridomil Gold 4E prior to injecting to prevent damage to injector pump.

For prevention of the stem and fruit rot phase of blight:

Apply the following on a 7- to 10-day schedule:

Fixed copper at 2 lb 77WP/A or OLF, or

Revus (mandipropamid, 40) at 8 oz 2.08F/A *plus* fixed copper, or

Ridomil Gold Copper (mefenoxam + copper, 4 + M1) at 2.5 lb 65WP/A. Make three to four applications at 10- to 14-day intervals. (Only apply Ridomil Gold 4E at planting and 30 days later. The third application of Ridomil Gold 4E cannot be made when Ridomil Gold Copper is applied.)

The following materials are labeled for *Phytophthora* on peppers, but there is little information on efficacy in the Mid-Atlantic region. For best results tank mix with a copper containing fungicide.

Forum (dimethomorph, 40) at 6.0 oz 4.18SC/A, or
Tanos (famoxodone + cymoxanil, 11 + 27) at 8-10 oz 50W/A

✓ **Potato – Black Leg** – Black leg is caused by *Erwinia* spp. which also cause ‘soft rots’. The bacteria which lead to the aerial phase of Blackleg are soil-borne (originate from old crop debris) and spread by rainfall, overhead irrigation and wind. The aerial phase of Blackleg does not originate from decaying seed pieces. The bacterium can enter the plant through wounds created by cultivation or through stems damaged by blowing wind, sand or hail. Dense canopies, warm weather and prolonged periods of leaf wetness favor the spread of aerial Blackleg. Fortunately, the disease rarely extends below ground and only causes dieback of stems over time. Symptoms of the aerial phase of Blackleg first appear as an irregular, water-soaked ‘green’ decay on stems that turns light-brown to black over time. Hot, dry weather will cause infected areas to dry out and become brittle. To help suppress aerial Blackleg, avoid excessive overhead irrigation if possible. Do any cultivating when plants are dry, cultivating in the presence of dew or wet plants may help to spread the bacterium around.

✓ **Tomato – Buckeye Rot** – Wet weather and wet soils favor the development of Buckeye rot. Symptoms of Buckeye Rot on green fruit include brownish-tan lesions that have a definitive concentric appearance. As lesions form the fruit will begin to soften up, this is quite different than Late blight which will cause a dark brownish/black lesion with the fruit remaining somewhat firm. Unlike Late blight, Buckeye rot won’t attack the foliage. For more information on control please see the 2008 *New Jersey Commercial Vegetable Production Recommendations*.

✓ **Tomato - Stem Rot/Pith Necrosis** – Symptoms begin to develop as green fruit begins to mature. Bacteria are most likely ubiquitous to tomato fields and develop when weather conditions and cultural practices lead to favorable conditions for disease development. Symptoms include the development of irregular brown lesions on main stems and branches. Late pruning (suckering) can provide entry points for both bacterial diseases, especially during wet conditions. Internally, stems will become brown and mushy. High humidity is necessary for disease development in both cases. High nitrogen and low night temperatures are associated with Pith Necrosis development. Control of both begins with cultural practices such as avoiding working in fields with wet foliage, avoiding late pruning and watching the amount of N applied to plantings.

✓ **Tomato – Bacterial spot and speck** – Symptoms of spot and speck look very similar on infected leaves. Lesions are small, circular, blackish-brown and with time develop a halo, or yellowing of tissue surrounding the lesion. As lesions develop they can coalesce (join together) and can cause premature death. After transplanting, apply Actigard at 0.33 oz 50 WG/A, or fixed copper (M1) at 1 lb a.i./A *plus* a mancozeb (Dithane, Manex II, Manzate, Penncozeb, M3) at 1.5 lb 75DF or OLF, or ManKocide (M1 + M3) at 2.5 to 5.0 lb 61WP/A, or Cuprofix MZ (M1 + M3) at 1.75 to 7.25 lb 52.5DF/A on a 7 day schedule. □

Cucurbit Downy Mildew Confirmed as Far North as S. Carolina and in Ontario, Canada

Andy Wyenandt, Ph.D., Specialist in Vegetable Pathology

Cucurbit downy mildew (CDM) was confirmed in Ontario, Canada on June 23rd on cucumber and has also been found on watermelon and cantaloupe. Cucurbit downy mildew has also been found as far north as South Carolina (6/20) cucumber and in southern Georgia (6/25) on butternut squash and cucumber. Cucurbit growers in our region should be diligent and continue to scout on a regular basis looking for symptoms.

Cucurbit growers need only to switch to a CDM specific fungicide program once it has been found in our region. For more information on CDM control please see the 2008 *New Jersey Commercial Vegetable Production Recommendations Guide*. To track the progress of CDM please visit NCSU cucurbit downy mildew forecasting webpage at <http://www.ces.ncsu.edu/depts/pp/cucurbit/>. □

Vegetable Diseases of the Week

Andy Wyenandt, Ph.D., Specialist in Vegetable Pathology



Blossom end rot of bell pepper caused by calcium deficiency



Phytophthora fruit rot of watermelon.



Phytophthora blight causing fruit rot in yellow summer squash

IPM Update

Kristian Holmstrom, Research Project Coordinator II, Vegetable IPM Program

Note: Trap catch numbers and maps represent 3 days of data through the night of June 26, rather than the normal 7-day period.

Sweet Corn

European corn borer (ECB) adults are now only being caught with any regularity in the northern most counties (see ECB map). This flight is over in most parts of the state, but feeding in sweet corn remains at high levels in many areas as larvae emerge and begin to feed. Feeding into the 40% range is not uncommon at this time. For whorl stage sweet corn, consider treating for ECB when 12% or more plants show signs of the “shot-hole” type feeding on newer leaves. Remember to treat plantings as the tassels open and begin a silking stage spray program from that time forward. ECB adults will continue to lay eggs on these plants through the silking stage, and constitute a threat to the ears. A silk spray program as dictated by local corn earworm (CEW) counts will help prevent ear infestations from ECB. Consult the 2008 *Commercial Vegetable Production Recommendations* for materials and rates.

The highest nightly ECB catches for the previous week are as follows:

| | | | | | |
|-------------|---|--------------|---|-----------|---|
| Blairstown | 1 | Flanders | 1 | Milford | 1 |
| Chester | 1 | Hackettstown | 1 | New Egypt | 1 |
| Denville | 1 | Little York | 1 | Newton | 1 |
| Farmingdale | 1 | Matawan | 1 | Oldwick | 1 |

Adult **corn earworm (CEW)** catches are light in most of the state, although a dramatic local increase occurred in the Indian Mills area of southern Burlington County over the weekend (see CEW map). Whether this catch is an anomaly or represents the beginning of a trend remains to be seen. For now, growers in this area should be aware that there is a potentially large population of adults active locally. Overall, this population remains a threat to early season silking sweet corn. Growers should access information on CEW populations from this publication or from population maps posted on the RCE Vegetable IPM Program website:

<http://www.pestmanagement.rutgers.edu/IPM/Vegetable/Pest%20Maps/maparchive.htm>

Shaded areas on the map (blue on the web) indicate a 4-5 day silking spray schedule, while cross-hatched areas (green on the web) represent a 3-day silking spray schedule.

The highest nightly CEW catches for the previous week are as follows:

| | | | | | |
|--------------|---|-------------|---|-------------|---|
| Indian Mills | 9 | E. Vineland | 1 | Pedricktown | 1 |
| Centerton | 1 | Eldora | 1 | RAREC | 1 |
| Crosswicks | 1 | Farmingdale | 1 | Tabernacle | 1 |
| Croton | 1 | Matawan | 1 | Woodstown | 1 |

SEE IPM ON PAGE 5

Silking Spray Schedules*

North – 6-7 days

Central – 4-5 days

South – 3-5 days

* Note: These are general recommendations. Local trap catches may indicate some variation in the frequency of insecticide applications to silking corn.

Pumpkins and winter squash

Many pumpkin and winter squash plantings are entering vine-run stage now. As this occurs, **squash bugs** may appear on plants. These large, dusty-gray insects resemble elongated stinkbugs and will feed on plant stems and leaves. They deposit masses of copper colored eggs on the underside of leaves. When plants are running, control of these insects is typically not required, as their feeding is not significant enough to injure the plant. Exceptions include very small plants (0-4 true leaf stage) or severely drought stressed plants. Under these conditions, treatment may be warranted if adult bugs or hatched egg-masses average one per plant.

Snap Beans

Potato leafhopper (PLH) adults have appeared in snap beans in the northern counties as of late last week. This pest is a particular problem on beans because it often goes unnoticed until foliar distortion and burn occurs. Once this damage appears, yields have already been compromised. It is critical that beans be monitored regularly for the presence of PLH. If a sweep net is available, consider treating if more than 100 nymphs and adults are present in 20 sweeps of pre-bloom stage plants. This threshold increases to 250 during bloom and to 500 per 20 sweeps during pod development. If no sweep net is available, check plants in 10 random field locations and consider treating if adults and nymphs are found throughout. Adults are pale green, and will fly out from foliage when disturbed and immediately fly back into the plant canopy. Nymphs are wingless and bright green and may be found on the underside of leaves.

Note: Activities of the Vegetable IPM Program in northern New Jersey are supported and funded in part by the New Jersey Highlands Council.

SEE ECB AND CEW DISTRIBUTION MAPS ON PAGE 7

Pest Notes

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

Most of the major pests of vegetables throughout New Jersey have been remaining at low levels during the past several weeks, partly because of the break in the weather. The pest populations will likely increase as the weather returns to hot and humid during the next week or so.

✓ **Corn earworm:** Numbers have been at moderate levels, with reports that corn earworms have caused some damage to sweet corn in the whorl stage (J. Mahar, Rutgers IPM). Delaware also reports corn earworm moths at high levels. This pest is much easier to manage while the earworm is small, and is more difficult to manage after several instars and the worm is larger. Effective materials include the pyrethroids (such as Asana, cyfluthrin, bifenthrin, Danitol, lambda-cyhalothrin, Mustang MAX, Proaxis, Renounce and others), as well as several older chemistry materials (Bt's, cryolite, Lannate, Monitor) and new chemistry materials (Entrust/SpinTor, Radiant, Proclaim). These materials work well but thorough coverage is necessary for satisfactory results. Consult label for each crop before using, as not all materials are labeled on all vegetable crops.

✓ **Cucumber beetles:** Cucumber beetles are active in most cucurbit fields. Beetles continually invade fields, so monitor closely for beetle numbers after each application to determine infestation levels. Thresholds vary from <1 to 5 beetles per plant before a spray is recommended, depending on variety and on the plant resistance or tolerance to cucumber beetle damage or bacterial wilt disease. In general, it is best not to let the beetles build up to a high level. Many effective materials are labeled, including neonicotinoids (such as imidacloprid, thiamethoxam), Lannate, Sevin, Thionex, and many pyrethroids (such as bifenthrin, Asana, Baythroid, lambda-cyhalothrin, etc). Use high volume to cover the expanding plant foliage.

✓ **European corn borer:** Numbers are dropping off in black light traps, indicating that first generation is nearly complete. Cool evening weather will inhibit adult activity, and is an advantage to the growers. Growers should watch the Rutgers IPM newsletter section for trap information in their area in order to determine best management practices for European corn borer.

✓ **Potato leafhopper:** Leafhoppers are reported in potatoes and snap beans. Damage is not evident yet, but adults and nymphs can be found. In beans, Rutgers IPM recommends treating if the number of adults and nymphs exceeds 100 per 20 sweeps during prebloom, 250 during bloom, and 500 during pod development. In potatoes, treatment is recommended if leafhopper

SEE PEST NOTES ON PAGE 6

counts exceed 1 adult per sweep or 1 nymph per 10 leaves. A variety of materials is available for both crops, and all are effective if properly applied.

✓ **Thrips:** Thrips are still reported in flowers of several crops, including tomatoes. Fields planted near woods and crops such as wheat are more likely to have thrips problems (especially wheat that is drying down). Overuse of pyrethroids (for worms, etc) may result in a more severe thrips problem, especially in mid-summer when temperature and humidity are high. Effective materials for thrips management include Entrust/Spin-Tor, Radiant, Lannate, Monitor, Assail, Provado, and Venom. High pressure/volume are necessary to force the material into the flowers where the thrips are hiding will increase effectiveness. Also, Admire, Platinum and Venom are labeled for application through an irrigation system, and will help reduce the leaf-feeding thrips. □

Food Safety Series

Wesley Kline, Ph.D., Cumberland County Agricultural Agent

I had an interesting call this Tuesday concerning getting a third party audit for this year. The grower had not attended any food safety training sessions we held this year or in the past. He just found out that his buyer wanted to see his third party audit results before purchasing product. In addition, he was ready to start harvesting next week.

The short answer to this grower was “lots of luck”! The buyer should have been talking to the grower through the winter explaining the need for the audit and the grower should have been working on a food safety plan to prepare for an audit. If you are in this situation, talk to the buyer and see what is actually being required. Are you expected to pass the audit or go through the process to see where you stand? Some buyers want growers to get involved in the process and work toward passing an audit next year. If that is the case, do your best effort to comply starting now. Do not wait until next year at this time and ask the same question.

There are many resources available to help you develop a food safety plan.

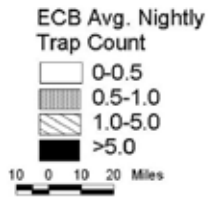
Our website at <http://njveg.rutgers.edu/html/2-r-5foodsafety.html> has a ‘Third Party audit Manual’ and the forms for the manual which walks you through the process. Penn State at <http://foodsafety.psu.edu/gaps/> has additional resource information and presentations to help explain food safety issues.

The National GAP project has developed a series of online Produce Safety Courses. The next GAPs Online Produce Safety Course will begin July 2, 2008 and run for three weeks. The registration is now open and will remain open until July 9, 2008 (one week into the course). Each course is limited to 25 people. There will be no fee for taking this course due to grant funding from the USDA National Integrated Food Safety Initiative.

Follow this link to the registration page at www.ecornell.com/gaps, check the Add to Cart checkbox and click the button. Once you register, it will go to Betsy Bihn for approval and then you will be notified that your registration is complete. You will be registering through eCornell, our partner in this course and an experienced online learning company. Students will be able to complete the lessons at any point during the three weeks. There will be an instructor dedicated to the course to assist students, review projects, and conduct group discussions.

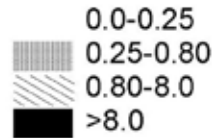
This is our second pilot course. We will offer one more pilot course in the next few months, then we will review the evaluations, make necessary modifications, translate the whole course into Spanish and launch both English and Spanish versions. If you have any additional questions regarding the course contact Betsy Bihn, National GAPs Program Coordinator at eab38@cornell.edu. □

Distribution of Adult European Corn Borer for the Week Ending July 02, 2008



Data collected and processed by: Kris Holmstrom, Marilyn Hughes
Rutgers Cooperative Extension & Center for Remote Sensing

Distribution of Adult Corn Earworm for the Week Ending July 02, 2008



Data collected and processed by: Kris Holmstrom,
Rutgers Cooperative Extension Pest Management Office

Weekly Weather Summary

Keith Arnesen, Ph.D., Agricultural Meteorologist

Temperatures averaged much above normal, averaging 73 degrees north, 76 degrees central and 77 degrees south. Extremes were 96 degrees at Pomona and Hammonton on the 28th, and 53 degrees at Flemington and Freehold on the 25th. Weekly rainfall averaged 0.21 inches north, 1.14 inches central, and 0.60 inches south. The heaviest 24 hour total reported was 2.91 inches at New Brunswick on the 29th to 30th. Estimated soil moisture, in percent of field capacity, this past week averaged 77 percent north, 63 percent central and 54 percent south. Four inch soil temperatures averaged 70 degrees north, 73 degrees central and 74 degrees south.

Weather Summary for the Week Ending 8 am Monday 6/30/ 8

| WEATHER STATIONS | RAINFALL | | | TEMPERATURE | | | | GDD BASE50 | | MON |
|---------------------------------------|----------------------|-------|-------|-------------|----|-----|-----|------------|-----|-----|
| | WEEK | TOTAL | DEP | MX | MN | AVG | DEP | TOT | DEP | %FC |
| BELVIDERE BRIDGE | .48 | 15.27 | .02 | 87 | 56 | 74. | 4 | 1065 | 195 | 67 |
| CANOE BROOK | missing | | | | | | | | | |
| CHARLOTTEBURG | .21 | 16.06 | -.52 | 87 | 55 | 72. | 4 | 902 | 245 | 73 |
| FLEMINGTON | .12 | 15.92 | .27 | 89 | 53 | 73. | 2 | 1051 | 181 | 70 |
| NEWTON | .04 | 14.88 | -.07 | 87 | 56 | 73. | 4 | 1085 | 348 | 69 |
| FREEHOLD | .46 | 12.46 | -2.89 | 91 | 53 | 75. | 3 | 1084 | 121 | 69 |
| LONG BRANCH | .39 | 15.42 | .04 | 90 | 60 | 75. | 4 | 1019 | 127 | 48 |
| NEW BRUNSWICK | 3.58 | 17.15 | 2.18 | 91 | 56 | 75. | 1 | 1107 | 83 | 100 |
| TOMS RIVER | .86 | 13.88 | -1.37 | 95 | 55 | 76. | 4 | 1098 | 209 | 60 |
| TRENTON | .40 | 14.61 | .65 | 92 | 57 | 76. | 2 | 1194 | 121 | 49 |
| CAPE MAY COURT HOUSE | .07 | 11.14 | -2.41 | 92 | 59 | 77. | 5 | 1162 | 192 | 36 |
| DOWNSTOWN | 1.56 | 14.11 | .30 | 94 | 55 | 76. | 3 | 1211 | 120 | 85 |
| GLASSBORO | .34 | 14.05 | -.92 | 93 | 61 | 77. | 4 | 1320 | 250 | 45 |
| HAMMONTON | .42 | 11.46 | -3.11 | 96 | 56 | 77. | 4 | 1273 | 210 | 45 |
| POMONA | .61 | 14.09 | .89 | 96 | 58 | 78. | 6 | 1227 | 252 | 47 |
| SEABROOK | missing | | | | | | | | | |
| SOUTH HARRISON | .14 | 13.67 | -1.18 | 92 | 61 | 77 | NA | 1300 | NA | NA |
| WES KLINE -- GDD BASE 40 PINEY HOLLOW | | | | | | | | | | |
| LAST WEEK | 205 (Ending 6/23/08) | | | | | | | | | |
| THIS WEEK | 256 (Ending 6/30/08) | | | | | | | | | |

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

Use of Trade Names: No discrimination or endorsement is intended in the use of trade names in this publication. In some instances a compound may be sold under different trade names and may vary as to label clearances.

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