

PLANT & PEST ADVISORY

VEGETABLE CROPS EDITION \$1.50

JUNE 22, 2005

Diagnosing and Controlling Downy Mildew on Cucurbits

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



Source: University of California IPM

This past week **Downy mildew** was confirmed on cucumber transplants brought in from Florida. Symptoms of Downy mildew began to show up late last week with heavy sporulation. Downy mildew generally does not occur until mid-August in our area. Without adequate control, major losses can occur in cucumber, melon, squash and pumpkin.

Symptoms of Downy mildew in early stages of infection include small, slightly chlorotic to bright yellow lesions on upper leaf surfaces. Symptoms typically show up first on older leaves and progress to newer growth. As lesions expand, they may become more yellow and/or brown and necrotic. The margins of lesions are irregular and angular and are bound typically by leaf veins. In conditions when leaf wetness is favored by rainfall and high relative humidity, the fungus will produce *dark-grayish fuzzy spore (sporangia) masses on the lower leaf surface*. These dark grayish-green spore masses are a diagnostic characteristic of Downy mildew. Downy mildew can spread easily with air currents and by splashing rain and water.

Control of Downy mildew begins with a preventative fungicide maintenance program. Once Downy mildew infects a field it is critical to keep the fungus from sporulating. Heavy sporulation (i.e. of the purplish-black spores) on the underside of the leaves will quickly lead to further disease development. Thus far, the Downy mildew pathovar seems to be extremely aggressive on cucumber verses other cucurbit crops. However, this may change as the season progresses and as more Downy mildew hits our region as the season progresses. There are a number of fungicides labeled for control of Downy mildew and many will help control of important diseases in cucurbits. *Growers who have not begun weekly maintenance programs should do so in cucurbit crops.* The best Downy mildew control (NCSU recommends) is Tanos (cymoxanil, 27) plus a protectant (i.e. Bravo) rotated with Previcur Flex (propamocarb, 28) plus a mancozeb (M2). Curzate has the same a.i. as Tanos and Gavel (zoxamide + mancozeb, 22 + M2) also works well. Growers should avoid using the strobilurins (Cabrio, Pristine, Amistar, Flint, Group 11) for Downy mildew control only since resistance may come into question. Use the strobilurin fungicides in fungicide maintenance programs for Powdery mildew control.

DOWNY MILDEW ON PAGE 2

INSIDE

Diagnosing and Controlling Downy Mildew on Cucurbits ... 1

Vegetable Diseases of the Week 2

Vegetable Disease Update 2

Pressure and Water Volume Key to Controlling Important Diseases in Cucurbit Crops 4

Pest Notes 4

IPM Update 5

Marketing Matters...What's so cool about COOL?

Weekly Weather Summary 7

Vegetable Diseases of the Week

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



Powdery mildew on pumpkin leaf.



Choanephora blossom rot of cucurbit.

DOWNY MILDEW FROM PAGE 1

The next question would be what to spray for and when. Well, that's the tough question. Right now, growers should be on their normal protectant program. If Downy mildew is suspected in the immediate area, or symptoms begin to develop, fungicide maintenance programs should immediately switch to Tanos/Bravo alternated with Previcur Flex/Mancozeb on a short schedule as a precautionary and/or *until sporulation is controlled*. Once Powdery mildew season begins, and/if Downy mildew is not present, judiciously use a strobilurin fungicide (Amistar or Flint, 11) plus a protectant fungicide (M) alternated with Nova or Procure (3) + a protectant fungicide (M).

If Downy mildew and Powdery mildew are present, growers should focus on Downy mildew control first, then PM control. Remember Cabrio and Pristine (both Group 11) are labeled for both Downy mildew and Powdery mildew, but there is a good chance resistance may be present or quickly develop to these fungicides by both fungi. Please make sure to keep an eye on strobilurin (Group 11) efficacy. Should you suspect that Group 11 efficacy is failing or not giving adequate control of Downy or Powdery mildew please contact your county agent. For more information on the control of Downy and Powdery mildew and specific fungicide rates please see the *2005 New Jersey Commercial Vegetable Production Recommendations Guide*. □

Vegetable Disease Update

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

✓ **Cucumber/Pickles – 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 – Choanephora** - also known as Choanephora wet rot or blossom end rot is a disease which affects blossoms and young developing fruit. Infected female flowers may turn brown, 'mushy' and fall off prior to fruit set. Blossom infection can lead to fruit infection. Young fruit may turn a yellowish-brown with masses of dense, white fungal growth with black 'pin-point' spores developing on infected fruit. Long periods of wet weather with excessive rainfall and high relative humidity favor the development and spread of Choanephora fruit rot. Unfortunately, control of Choanephora is difficult due to the constant development of new flowers and fruit, canopy production by the plant, and the ability of the fungus to survive saprophytically.

✓ **Peppers – Phytophthora blight** is beginning to appear in pepper fields. To control the crown rot phase apply 1 pt Ridomil Gold 4E/A or 1 qt Ultra Flourish 2E/A (mefenoxam, 4) through the drip system or in a 12-16 inch band over the row at 30-day intervals after transplanting for two applications. Additionally, as fruit develop plants will become susceptible to the *fruit rot phase*, especially with warm and moist weather conditions. Protect the upper portion of the plant with fixed copper sprays or Ridomil Gold Copper sprays. Make 3 to 4 applications at a 10-14 day intervals. Do not apply the last application of mefenoxam through the drip if foliar applications of Ridomil Gold Copper have been started. See page F70 of the *2004 Commercial Vegetable Production Recommendations* for more details.

✓ **Potato – Black Leg** – The aerial phase of Black leg, also known as aerial stem rot, has shown up over the past

SEE DISEASES ON PAGE 3

DISEASES FROM PAGE 2

week. 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.

✓ **Potato - Leak (*Pythium*) and Pink Rot (*Phytophthora*)** - Leak is a disease that usually enters the tubers through bruises occurring in conjunction with the harvesting of immature tubers during hot weather. Pink rot generally occurs in poorly drained areas. Be sure to rotate out of potatoes for at least 2 years. Apply one of the following fungicides with as much gallonage as possible. Make three applications of one of the following fungicides. The first application should be made at nickel size tubers. The second and third applications should occur 14 and 28 days later. Be sure to get some coverage of the soil surrounding plants for root uptake to occur.

Ridomil Gold Bravo, Fluoronil (mefenoxam + chlorothalonil, 4 + M4) at 2 lb 76WP/A, or
Ridomil Gold/Copper (mefenoxam + copper, 4 + M1) at 2 lb 70WP/A, or
Ridomil Gold MZ (mefenoxam + mancozeb, 4 + M2) at 2.5 lb 68WP/A

An alternative application technique is to apply one of the following in a 6- to 8-inch band directly over the seed-piece prior to row closure.

Platinum Ridomil Gold (mefenoxam, 4) at 2.2 fl oz 1.6E/1000 feet of row, or
Ridomil Gold (mefenoxam, 4) at 0.42 fl oz 4E/1,000 feet of row, or
Ultra Flourish (mefenoxam, 4) at 0.84 fl oz 2E/1,000 feet of row.

✓ **Powdery mildew – Cucurbits – Now is the time to start scouting for Powdery mildew.** Powdery mildew typically occurs from mid-July until the end of the season. Unlike Downy mildew, the diagnostic characteristics of Powdery mildew are *pure white 'fuzzy' growth on both the upper and lower leaf surface, petioles and stems.* Symptoms typically begin on older, lower leaves and can develop and spread rapidly under dry, humid conditions. Control of Powdery mildew begins with regular scouting for symptoms and weekly fungicide applications. For

more information on control of Powdery mildew and other important diseases of cucurbits please see the *2005 New Jersey Commercial Vegetable Production Recommendations Guide.*

✓ **Tomato - Early Blight and Septoria leaf spot -**

Apply the following fungicides on a 7-day schedule or according to Tom-Cast advised sprays using the alternation pattern described below to delay the potential development of resistant to FRAC Group 11 fungicides.

Bravo, Echo, Equus, chlorothalonil, M4) at 2 to 3 pt 6F/A or OLF (also for gray leaf spot, black mold and soil rot), or
mancozeb (Dithane, Manex II, Manzate, Penncozeb, M2) at 3 lb 80WP/A or OLF (also for gray leaf spot and leaf mold)

Alternate one of the above fungicides with one of the following:

Amistar, Quadris (azoxystrobin, 11) at 1.6 to 2.0 oz 80WDG/A or OLF (Also for buckeye rot and black mold. Do not apply near apples, see label for details.), or

Cabrio (pyraclostrobin, 11) at 8 to 12 oz 20EG/A, or
Endura (boscalid, 7) at 2.5 to 3.5 oz 70W/A, or
Flint (triflozystrobin, 11) at 4 oz 50 WDG/A, (Do not apply near Concord Grapes.) or

Tanos (famoxodone + cymoxanil, 11 + 27) at 8 oz 50W/A + protectant fungicide (also for buckeye rot suppression and gray leaf spot).

✓ **Tomato – Late blight - There have been no confirmed cases of Late blight in our region to date.** Apply one of the following *protectant fungicides* and repeat every 7 days or follow a *disease forecasting system to schedule fungicide applications:*

Bravo, Echo, Equus, chlorothalonil, M4) at 1 to 3 pt 6F/A or OLF, or
Gavel (zoxamide + mancozeb, M2 + 22) at 1.5 to 2 lb 75DF/A, or
mancozeb (Dithane, Manex II, Manzate, Penncozeb, M2) at 3 lb 80WP/A or OLF.

Once late blight is detected in the area, switch to one of the following translaminar fungicides which can move into and through leaves:

Acrobat (dimethomorph, 15) at 6.4 oz 50WP/A *plus* a protectant fungicide, or
Previcur Flex (propamocarb HCL, 28) at 1.5 pt 6F/A *plus* a protectant fungicide, or
Tanos (famoxodone + cymoxanil, 11 + 27) at 8 oz 50W/A *plus* a protectant fungicide.

Return to the use of protectant fungicides when conditions no longer favor the development of late blight.

✓ **Tomato - Stem Rot/Pith Necrosis – Both bacterial diseases have shown up in isolated areas over the past week.** Symptoms begin to develop as green fruit begins to mature. Both 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

SEE TOMATO ON PAGE 4

Pressure and Water Volume Key to Controlling Important Diseases in Cucurbit Crops

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

Adequate and thorough spray coverage is vital for protecting the foliage from threatening diseases such as **Downy and Powdery mildew**. Protecting the foliage from early defoliation will allow fruit to size properly and help prevent sunscald injury. *Ways to insure adequate and thorough spray coverage is to increase spray pressure (40 to 50 psi) and water volume (40 to 50 gallons/A)*. Growers need to remember that Powdery mildew can develop and sporulate on the upper and lower leaf surfaces. Although symptoms of Downy mildew can be seen on the upper leaf surface, the *fungus only sporulates on the lower leaf surface*. Adequate and thorough spray coverage will allow fungicides to get where they are needed the most and help prevent common disease problems in cucurbit crops. □

TOMATO FROM PAGE 3

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 include small, water-soaked spots with a ‘greasy’ appearance on infected leaves. These lesions will expand and will often form yellow ‘halos’ at the margins. Lesions may spread and form large, irregular necrotic areas on leaves. On mature plants infections are most evident on older leaves. Bacterial spot and speck will both *infect green fruit*. Bacterial spot development is favored by high moisture, relative humidity and warm temperatures (75 to 90 degrees) and bacterial speck is favored by cooler, moist conditions (65 to 75 degrees). Bacterial spot produces slightly raised water-soaked spots that with age become ‘scabby’ and be 1/4” in diameter. Bacterial speck produces much smaller lesions (1/16”) that are black and slightly sunken. Control of both spot and speck begins with proper crop rotation (2-3 years without tomatoes or peppers) and in the greenhouse with clean seed and/or transplants and proper greenhouse sanitation. Culturally, Avoid overhead irrigation and *do not work* in fields when plant surfaces are wet. Control of spot and speck should begin in the greenhouse and carry into the field soon after transplanting with a weekly spray program, especially if either has been a problem in the past. □

Pest Notes

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

✓ **General:** A period of hot temperatures followed by periods of cool temperatures and then again by hot temperatures, is ideal for development of **aphid** populations in many crops, including leafy vegetables, cucurbits, peppers, cabbage, and others. Most of New Jersey has experienced these weather patterns for the past month or more, so monitor your fields closely for a surge in the number of aphids on your crops. Several of the “new chemistry” materials now available in many vegetable crops are very effective against aphids (including **melon aphid**). Actara, Assail, Fulfill, Platinum, and Provado are materials that will control all of the aphid pests. Consult label for each crop before use, as not all crops are on each label. Obtain thorough coverage for effective control, especially to leaf undersides.

✓ **Cabbage:** Both **imported cabbageworm** and **diamondback moth larvae** are on cabbage and related crops throughout southern NJ. The imported cabbageworm is the velvety, slow-moving caterpillar eating large holes in the foliage, while the diamondback moth larva is bright green, small, cigar-shaped, and rapidly twitches back and forth when disturbed. Many products control the imported cabbageworm, but only a few are effective against the diamondback moth larvae, including Avaunt, Orthene, Proclaim, and SpinTor. If the temperatures are warm, the Bt’s are also effective (consult label to ensure that diamondback moth larvae are listed).

✓ **Cucurbits:** Both **striped** and **spotted cucumber beetles** are present and causing some feeding damage. The cuke beetles feed heavily on the leaves of small plants, but are more dangerous because they transmit Bacterial Wilt disease to the cucurbit plants, which can be deadly to the plants if they are small when infected. If foliar sprays are required (see page F28 of the *2005 Commercial Vegetable Production Recommends*), use an effective contact material such as Asana, bifenthrin, Lannate, permethrin, Sevin, or Thionex. The key is to prevent or reduce feeding especially to the cotyledons and young plants.

✓ **Pepper:** See the “General” section above on aphids. If **aphid** populations are increasing, apply an aphicide 2-3 days after irrigation, and make sure to obtain coverage to the leaf undersides where aphid populations develop. Use either Actara, Assail, Fulfill, Lannate, MSR, Provado, Thionex, or Vydate. Although Orthene is labeled for aphid control, and is effective, the use of Orthene is limited to 2 lbs AI per season on bell peppers, it is best to use Orthene for the first 2 sprays for **European corn borer** control in late July or August.

The IPM specialists (J. Mahar) report that **pepper**

SEE PEST NOTES ON PAGE 5

weevil has been found on one farm in southern NJ. This is a devastating pest in bell and nonbell peppers if it becomes established for the summer and totally destroys a pepper field in a short period of time. Actara and Assail are labeled for control of pepper weevil in peppers, but for effective control, *must* be applied when weevils first appear and flower buds or fruit are present. Apply at least 2-3 applications on a 7-10 day schedule, and make sure to obtain thorough coverage of the foliage and fruit for optimum control. Then monitor the field to ensure the weevils are no longer a threat (watch for signs of weevil damage, such as dropped immature fruit falling in a row, or fruit that look healthy but have a small, 1/16"-1/8" hole in the side, just slightly less than the diameter of pencil lead).

✓ **Parsley:** Carrot weevils are active, and will remain active thru the season. There have been no new labels for use in parsley/carrots for control of carrot weevils. NJ still has a Special Local Needs label for the use of Guthion 50WP (1 lb per application, for up to a total of 3 applications). However, it is possible that Guthion will soon lose all uses currently registered, including this one. The IR-4 group has been working on this problem, and has ongoing projects for obtaining labels for new products to replace Guthion if necessary. Much depends on the activity of the federal EPA for both the loss of old labels and the approval of new labels.

✓ **Potato:** As the at-plant treatments for **Colorado potato beetle** become less effective, remember to consider a **non-neonicotinoid** treatment (the neonicotinoids are the newest class of insecticides, and include Assail, Actara, Platinum, Provado, Admire) to reduce the risk of insecticide resistance. Instead of these products, use AgriMek, Avaunt + PBO, a neem based product (azadirachtin) for small larvae, a Bt (Novodor, Raven) for small larvae, cryolite, Imidan, a new insecticide Rimon .83EC for small larvae, SpinTor, Thionex or Vydate. Remember to thoroughly read the label for complete application instructions and restrictions. Many of the new materials on the market have specific use restrictions and application methods.

✓ **Tomato:** A new miticide, Oberon 2SC, is now labeled in greenhouse tomatoes for control of **two-spotted spider mites**, **tomato psyllid** and the **whitefly complex (silverleaf, sweet potato and greenhouse whiteflies)**. Use 6.4 oz of Oberon per 100 gallons of mixture, apply no more than 2 applications per season, and use a 3 day pre-harvest interval. □

IPM Update

Kristian Holmstrom, Program Associate in Vegetable IPM

Sweet Corn

Cooler evening temperatures have combined with generally declining adult **European corn borer (ECB)** activity over the past week to result in lower trap catches in most areas of the state (see ECB map). The high activity in the southern Hunterdon County area shown on the map is the result of limited data, and actual numbers are likely lower than represented here. Consistent catches are occurring in the northern counties as well as in Cape May County, but these are lower than in the recent past. No data is available from Middlesex, Monmouth, or Ocean Counties at this time. As this first moth flight slows, larval injury in sweet corn plantings is increasing. Be sure to check all whorl and pretassel stage sweet corn plantings for signs of ECB damage. Check 5 consecutive plants each in 10 random locations. Look for the "shot-hole" type injury on leaves and discolored sections in the emerging tassels. Consider treating when 12% or more of samples plants show fresh feeding signs. Additionally, be sure to treat these early sweet corn plantings as they go to full tassel and first silk. This application will help eliminate remaining ECB larvae before they can re-enter the plant near the developing ear. If local light traps continue to catch ECB adults and silking stage corn is present, consider treating weekly to prevent infestations by larvae that have been deposited on or near the ears themselves. These silk stage sprays should be applied even if there are no **corn earworm (CEW)** being caught to generate a schedule.

The highest average nightly ECB blacklight catches are:

Little York	4	Jones Island	2	Clinton	1
Hammonton	3	Morristown	2	Eldora	1
Denville	2	Pennington	2	Green Creek	1
Hopewell	2	Phillipsburg	2	Port Colden	1

A few CEW adults have been caught in Cape May, Cumberland, Salem and Hunterdon Counties over the past week (see CEW map). These individuals most likely do not represent the start of a large population increase, but do pose a local threat to silking sweet corn. The highest average nightly CEW blacklight catches are:

Bayside	1
East Vineland	1
Eldora	1
Pedricktown	1
Sergeantsville	1

Within the past week, very low level **corn leaf rust** infections have been found in the northern counties on tasseling sweet corn. This disease is favored by cool, damp weather and can be a problem for sweet corn plantings if infections start in the seedling or young whorl stages. While scouting for ECB, note the presence of reddish powdery pustules on the surface of older leaves. Consider a fungicide application if this disease is first observed on very young corn. Initial infections in the pre-tassel or later stages are not typically a problem.

SEE IPM ON PAGE 6

Peppers

Numerous **ECB** eggmasses have been found in pepper plantings throughout the northern counties. This pest poses a threat to small plants as well as developing fruit at this time. Look at 2 leaves each on 5 consecutive plants in 10 random locations in the field. Consider treating if 2 or more ECB eggmasses are found in the sample. For growers in the southern counties, where there are enlarging fruit on the plants, consider weekly insecticide applications as long as local blacklight trap catches exceed 1 per night consistently.

Cole Crops

Increasing numbers of **diamondback moth larvae (DBM)** and **imported cabbage worms (ICW)** have been found on broccoli, cabbage and similar crops this week. It is important to check fields weekly to prevent serious injury by these pests. When scouting, be sure to include the inner most leaves in the sample as this is often where larvae feed. Consider treating if greater than 20% of heading type cole crops are infested prior to head formation and if greater than 5% are infested when heads are present. For leafy greens, consider treating if 10% or more plants are infested at any time.

Pumpkins

Recently emerged pumpkin plants are at risk from **striped cucumber beetle** feeding at this time. These yellow and black beetles feed heavily on the seed leaves of small plants and can transmit **bacterial wilt**. This disease can be limiting if it is acquired when the plants are very small. Check 5 consecutive plants each in 10 random locations in the field. Consider treating if beetles are found in more than half the sites and a systemic insecticide has not been used at planting. In some cases, the newly emerged plants may not have taken up an in-furrow applied insecticide and feeding may persist for a day or so.

Snap Beans

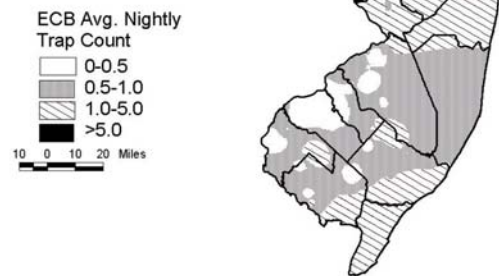
Potato leaf hopper (PLH) adults have recently been observed on various crops in the northern counties. This pest is most likely throughout the state now, and is capable of causing severe stunting and yield reduction in snap beans. As populations increase in fields, and PLH begins reproducing in the crop, chlorosis and deformation of leaves may become apparent. If these symptoms appear, crop damage has already occurred. Insecticide applications directed at ECB often control PLH too, but ECB numbers do not currently warrant applications. Therefore, it is critical to monitor for PLH. A sweep net is helpful for PLH detection. Consider treating if adults and nymphs exceed 100 per 20 sweeps prior to bloom, or 250 per 20 sweeps at bloom, or 250+ during pod development. If a sweep net is not available, consider treating if nymphs are found in random samples covering all areas of the field.

Tomatoes

As the weather warms, and fruit enlarge and begin to ripen, it is a good idea to begin monitoring for **thrips** populations in the field. These small insects cause what is referred to as "gold fleck" on tomato fruit if they build up in the crop as fruit enlarge. Check fields weekly for increases in thrips populations. Tap flower clusters over an index or similar card. If the small, yellow colored flower thrips shake out onto the card at more than half of the sites inspected, or thrips populations have been increasing, consider treating to minimize the cosmetic feeding injury to fruit.

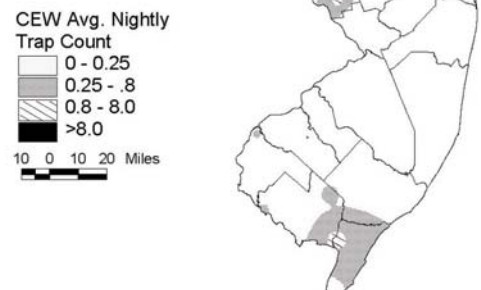
Check fields for signs of **two spotted spider mite (TSSM)** feeding. This injury first appears as whitish pin-spots or "stipple" on the surface of older leaves. As the mites increase and continue to feed, the leaves may turn yellow, and the injury will progress up the plant onto younger leaves. Often TSSM infestations first start near field edges where the mites have been feeding on weeds or other hosts like eggplant. If TSSM is localized in a field, spot treatments may be effective.

Distribution of Adult European Corn Borer for the Week Ending June 22, 2005



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 June 22, 2005



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

Marketing Matters...What's so cool about COOL?

Rick VanVranken, Atlantic County Agricultural Agent

From a press release dated June 8, 2005 – National Farmers Union expressed its dismay today at the U.S. House of Representatives' defeat of legislation to uphold mandatory country-of-origin labeling (COOL) for meat. Without the House's spending support, the U.S. Dept. of Agriculture is unable to implement the mandatory COOL program included in the 2002 farm bill.

"Today Congress missed an opportunity to help American consumers know where their food comes from, as well as a chance to help American producers differentiate their high-quality, domestic products from imported beef," said NFU President Dave Frederickson.

If COOL gives consumers a choice and helps promote locally grown product (that, of course, is far superior in quality and safety than imports, right?), why are retailers putting so much pressure on Congress to repeal or block its implementation?

COOL requires *grocers* to identify the country where the food on the shelves was produced. Since food products are often co-mingled, fresh produce on the supermarket shelves and processed foods at the plant,

eventually, grocers will demand their suppliers label every retail package shipped. Logistically, grocers don't feel they would be able to keep up-to-date labeling on their shelves every time a new crate is opened. Despite the intent of the legislation to help farmers, this would likely be another cost born by the farmer. Besides the costs, not every produce item lends itself to being labeled.

Although implied, this is not a food safety/security issue either. The food system needs protection and monitoring, but COOL does not accomplish anything that is not already in place. Interstate trade requires and wholesale buyers insist on wholesale packages labeled with name and address of the grower to allow tracking in reaction to food-borne illness outbreaks. Fairly successful voluntary implementation of Good Agricultural Practices (GAPs) has convinced the Food and Drug Administration and USDA to back away from mandating safe food production practices, including labeling, by country of origin or otherwise.

However, tracking to pinpoint sources of food contamination is different than labeling to affect consumer purchasing in favor of homegrown products. Implementing any program that is not mandated by law implies there is a benefit outweighing the costs associated with that implementation. Apparently, grocers don't see the benefits associated with increasing homegrown purchases. □

Weekly Weather Summary

Keith Arnesen, Ph.D., Agricultural Meteorologist

Temperatures averaged slightly above normal, averaging 71 degrees north, 72 degrees central and 74 degrees south. Extremes were 95 degrees at Canoe Brook on the 15th and 49 degrees at Charlotteburg on the 20th. Weekly rainfall averaged 0.37 inches north, 0.07 inches central, and 0.10 inches south. The heaviest 24 hour total reported was 0.51 inches at Belvidere on the 16th to 17th. Estimated soil moisture, in percent of field capacity, this past week averaged 70 percent north, 54 percent central and 32 percent south. Four inch soil temperatures averaged 73 degrees north, 74 degrees central and 75 degrees south.

Weather Summary for the Week Ending 8 am Monday 6/20/05

WEATHER STATIONS	RAINFALL			TEMPERATURE				GDD BASE50		MON %FC
	WEEK	TOTAL	DEP	MX	MIN	AVG	DEP	TOT	DEP	
BELVIDERE BRIDGE	.54	11.63	-2.33	92	54	71.	2	697	22	67
CANOE BROOK	.70	12.49	-2.62	95	56	72.	3	862	221	75
CHARLOTTEBURG	.25	14.50	-.68	88	49	68.	2	686	197	60
FLEMINGTON	.11	14.93	.53	91	52	72.	3	786	120	72
NEWTON	.24	12.38	-1.26	90	52	70.	3	735	180	60
FREEHOLD	.21	15.00	.81	91	53	70.	0	806	55	56
LONG BRANCH	instruments have been replaced/data resumes next week									
NEW BRUNSWICK	.00	12.46	-1.42	94	54	72.	1	836	40	62
TOMS RIVER	.07	13.89	-.22	93	51	72.	3	734	54	27
TRENTON	.01	12.08	-.81	93	56	73.	1	846	1	45
CAPE MAY COURT HOUSE	.11	12.50	.00	90	55	72.	2	626	-131	21
DOWNTOWN	.06	11.56	-1.21	92	53	72.	0	777	-89	27
GLASSBORO	.33	13.41	-.36	94	59	75.	3	927	82	40
HAMMONTON	.01	11.84	-1.56	94	54	74.	2	826	-11	19
POMONA	.10	12.78	.53	93	55	74.	4	733	-30	29
SEABROOK	.00	12.50	.37	94	52	75.	3	961	89	28
SOUTH HARRISON	.33	13.44	-.27	92	55	73	NA	880	NA	NA
WES KLINE — GDD BASE 40 PINEY HOLLOW Last Week* 268 (Ending 6/13/05) This Week								227 (Ending 6/20/05)		
* February total base 40 equals 32 units										

MILLTOWN, NJ 08850
PERMIT #576
POSTAGE PAID
FIRST CLASS

New Brunswick, N.J. 08901-8551
18 College Farm Road
Rutgers' Cook College
Plant & Pest Advisory
COOPERATIVE RESEARCH & EXTENSION
RUTGERS
NJ AGRICULTURAL EXPERIMENT STATION



PLANT & PEST ADVISORY VEGETABLE CROPS EDITION CONTRIBUTORS

Rutgers Cooperative Research & Extension (RCRE) Specialists

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

George Hamilton, Ph.D., Pest Management

Joseph R. Heckman, Ph.D., Soil Fertility

Bradley A. Majek, Ph.D., Weed Science

Andy Wyenandt, Ph.D., Vegetable Pathology

RCRE County Agricultural Agents

Atlantic, Richard W. VanVranken (609-625-0056)

Burlington, Raymond J. Samulis (609-265-5050)

Cape May, Russell Blair (609-465-5115)

Cumberland, Wesley Kline, Ph.D. (856-451-2800)

Gloucester, Michelle Infante-Casella (856-307-6450)

Hunterdon, Winfred P. Cowgill, Jr. (908-788-1338)

Middlesex, William T. Hlubik (732-745-3443)

Monmouth, Bill Sciarappa, Ph.D. (732-431-7260)

Morris, Peter J. Nitzsche (973-285-8300)

Passaic, Elaine F. Barbour, Agric. Assistant (973-305-5742)

Salem, Peter R. Probasco (856-769-0090)

Warren, William H. Tietjen (908-475-6505)

Vegetable IPM Program (732-932-9802)

Joseph Ingerson-Mahar, Vegetable IPM Coordinator

Kristian E. Holmstrom, IPM Program Associate

Newsletter Production

Jack Rabin, Associate Director for Farm Services, NJAES

Cindy Rovins, Agricultural Communications Editor

For back issues, visit our web site at: www.rce.rutgers.edu/pubs/plantandpestadvisory.

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 RCRE 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.

Reproduction of Articles: RCRE invites reproduction of individual articles, source cited with complete article name, author name, followed by Rutgers Cooperative Research & Extension, Plant & Pest Advisory Newsletter.