Vegetable Disease Update

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

✔ Cabbage – Damping-off – To help control losses due to damping-off pathogens apply Ridomil Gold (mefenoxam, FRAC code 4) at 1 to 2 pt/A 4SL or Quadris (azoxystrobin, 11) at 0.40 to 0.80 fl oz 2.08SC/1000 row ft (for Rhizoctonia only), or Ridomil Gold at 1 to 2 pt/A 4SL plus Quadris at 0.40 to 0.80 fl oz 2.08SC/1000 row ft. in a band up to 7 in. after seeding. For more information please see 2012 New Jersey Commercial Vegetable Production Recommendations Guide.

✔ Lettuce – Bottom Rot/Drop – Spring lettuce season is beginning and growers should take precautions to help control Bottom rot (Rhizoctonia) and Lettuce drop (Sclerotinia) which may cause potential problems. For Bottom rot, apply Endura 70W (boscalid, FRAC code 7) at 8.0 to 11.0 oz 70W/A, or iprodione (FRAC code 2) at 1.5 to 2.0 lb 50WP/A or OLF should be applied one week after transplanting or thinning and 10 and 20 days later. For Lettuce drop, apply Endura (FRAC code 7) at 8.0 to 11.0 oz 70WG/A or iprodione (FRAC code 2) at 1.5 to 2.0 lb/A, or Quadris (azoxystrobin, 11) at 0.40 - 0.80 fl. oz/1000 row ft. 2.08SC beginning one week after transplanting or thinning and again at 10 and 20 days later. For more information on control of Bottom rot and Lettuce drop and other important diseases of lettuce please see the 2012 New Jersey Commercial Vegetable Production Recommendations Guide.

✔ Parsley – Septoria Blight /Bacterial (blight) leaf spot – Leaf spots caused by Septoria blight are easily distinguished by small, angular to round leaf spots with grayish-brown centers with a definitive dark, brown margin. Numerous black fruiting bodies develop in the center of lesions. Septoria blight is spread by wind-driven rain, heavy dews and overhead irrigation. Workers and equipment may also spread the disease during wet conditions. Best management practices include i) proper crop rotations of at least 2 years and by using clean or treated seed ii) scouting fields early for symptom development iii) keeping workers and equipment out of fields with wet foliage iv) plowing under residue of harvested crop and avoid planting in fields adjacent or near previously infected fields. Rotate applications of Quadris (azoxystrobin, 11) at 6.0 to 15.5 fl oz 2.08SC/A or Cabrio (pyraclostrobin, 11) at 12.0 - 16.0 20WG/A with Tilt (propaconazole, 3) at 3.0 to 4.0 fl oz 3.6F/A

See Disease Update on page 2
every 7 days. A fixed copper at labeled rates can also be included if bacterial leaf spot is an issue. Bacterial leaf spot (Pseudomonas syringae) of parsley can also show up at the same time as Septoria blight. Leaf spots caused by Bacterial blight appear as small brown to black spots on the leaves. The pathogen can be soil or seed borne and develops during cool, moist weather. The disease spreads during cool, rainy weather or with overhead irrigation; and is exacerbated by high plant density. The same control measures listed for Septoria will assist in preventing the spread of Bacterial leaf spot as long as the fixed copper is included with azoxystrobin and the fungicides are applied preventatively. If Oxidate is used, follow the label carefully.

✔ Strawberry – Anthracnose fruit rot -Strawberry anthracnose can be extremely destructive during warm, wet weather causing significant fruit rot. Symptoms of Anthracnose include blackish-brown circular spots on maturing green fruit and soft, sunken (flat) circular lesions on ripe fruit. On ripe fruit, lesions can expand rapidly and are often covered with a pinkish-orange spore mass. Spores are spread from infected to healthy fruit with splashing water. Control of Anthracnose always begins with a 7 to 10 day preventative spray program no later than 10% bloom and/or prior to disease development. For control apply the following combinations:

1. Captan (M3) at 4.0 lb 50WP/A plus Pristine (pyraclostrobin + boscalid, 11 + 7) at 18.5 to 23.0 oz 38WG/A
2. Captan (M3) at 4.0 lb 50WP/A plus Abound (azoxystrobin, 11) at 6.0 to 15.5 fl. oz 2.08SC/A or Cabrio (pyraclostrobin, 11) at 12.0 to 14.0 oz 20EG/A
3. Captate (captan + fenhexamid, M3 + 17) at 3.5 to 5.25 lb 68WDG/A

For subsequent applications, alternate:
1. Captan (M3) at 4.0 lb 50WP/A plus Abound (azoxystrobin, 11) at 6.0 to 15.5 fl. oz 2.08SC/A, or Cabrio (pyraclostrobin, 11) at 12.0 to 14.0 oz 20EG/A plus captan (M3) at 4.0 lb 50WP/A, or Captate (captan + fenhexamid, M3 + 17) at 3.5 to 5.25 lb 68WDG/A

To help manage fungicide resistance development, do not make more than 2 consecutive applications of either: Pristine (pyraclostrobin + boscalid, 11 + 7), Cabrio (pyraclostrobin, 11) or Abound (azoxystrobin, 11) before switching to another fungicide chemistry.

✔ Strawberry – Botrytis (Gray Mold) and Blossom blight – can cause serious losses in strawberry plantings in high tunnels and the field if not controlled properly. Development is favored by moderate temperatures (59 to 77 °F) with prolonged periods of high relative humidity and surface wetness. Control of Gray mold begins with preventative fungicide applications. Apply at 5 to 10 percent bloom and every 10 days until harvest. During periods of excessive moisture, spray intervals of 5 to 7 days may be necessary. Rotate fungicide chemistries to aid fungicide resistance management.

Application #1: Pristine (pyraclostrobin + boscalid, 11 + 7) at 18.5 to 23.0 oz. 38WG/A
Application #2: Captan (M3) at 4.0 lb 50WP/A, Captate (captan + fenhexamid, M3 + 17) at 3.5 to 5.25 lb 68WDG/A, or Switch (cyprodinil + fludioxonil, 9 + 12) at 11.0 to 14.0 oz. 62.5WG/A
Application #3: Pristine (pyraclostrobin + boscalid, 11 + 7) at 18.5 to 23.0 oz. 38WG/A
For subsequent applications, rotate between two or more of the following fungicides:
1. Captan (M3) at 4.0 lb 50WP/A, or Cabrio (pyraclostrobin, 11) at 12.0 - 14.0 oz 20EG/A, or Switch (cyprodinil + fludioxonil, 9 + 12) at 11.0 to 14.0 oz. 62.5WG/A, or Pristine (pyraclostrobin + boscalid, 11 + 7) at 18.5 to 23.0 oz 38WG/A, or Switch (cyprodinil + fludioxonil, 9 + 12) at 11.0 - 14.0 oz 62.5WG + Abound (azoxystrobin, 11), or Switch (cyprodinil + fludioxonil, 9 + 12) at 11.0 - 14.0 oz 62.5WG + Cabrio (pyraclostrobin, 11) at 12.0 - 14.0 oz 20EG/A.

✔ Spinach (White Rust and Downy Mildew) - Prior to symptom development, apply the following on a 7 to 10 day schedule: Quadris (azoxystrobin, 11) at 12.0 to 15.5 fl oz 2.08SC/A, or Cabrio (pyraclostrobin, 11) at 12.0 to 16.0 oz 20EG/A, or Reason (fenimidazole, 11) at 5.5 to 8.2 fl oz 50SC/A, or Tanos (famoxadone + pyraclostrobin, 11 + 27) at 8.0 to 10.0 oz 50W/A. Rotate to one of the following fungicides: Ranman (cyazofamid, 21) at 2.75 fl oz 400F/A, Revus (mandipropanamid, 40) at 8.0 fl oz 2.08F, or Presidio (fluopicolide, 43) at 3.0 to 4.0 fl oz 4SC/A, or Actigard (aci-benzol-S-methyl, P) at 0.50 to 0.75 oz 50WG/A, or Aliette (fosetyl Al, 33) at 3.0 lb 80WG/A, or fixed copper (FRAC code M1) at labeled rates (Copper containing fungicides may cause some phytotoxicity), or Ridomil Gold Copper (mefenoxam + copper, 4 + M1) at 2.5 lb 65WP/A (on 14-day schedule). For more information please see the 2012 New Jersey Commercial Vegetable Production Recommendations Guide.

✔ Tomato – Bacterial spot and speck – Tomato transplants with suspected symptoms can be treated with streptomycin (Agri-Mycin 17, Agri-Strep, 25) at 1 lb/100 gallons, or 1.25 teaspoon per gallon every 4 to 5 days prior to transplanting. Additionally, Kocide 3000 (copper hydroxide, FRAC code M1) has a greenhouse label for speck and spot control in the greenhouse. Apply ½ to 1.5 TBSP per 1000 sq ft. every 5 to 10 days. Remember, phytotoxicity is an important issue when apply copper in enclosed structures, see label for cautions, restrictions and liabilities. After transplanting, apply Actigard at 0.33 oz 50WG/A (see label for use), or fixed copper (M1) at 1 lb a.i./A plus a mancozeb (Dithane, Manzate, Pencozeb, M3) at 1.5 lb 75DF or OLF, or ManKocide (M1 + M3) at 2.5 to 5.0 lb 61WP/A on a 7 day schedule.
Growers' Guide to Understanding the Protectant Fungicides (FRAC codes M1 – M9)

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

Protectant (or contact) fungicides, such as copper (FRAC code M1) and sulfur (M2), the dithiocarbamates (mancozeb, FRAC code M3) and chlorothalonil (M5) belong to FRAC groups which have a low chance for fungicide resistance to develop. Protectant fungicides typically offer broad spectrum control for many different pathogens. So, why wouldn’t fungi develop resistance to protectant fungicides?

Protectant fungicides are used all the time, often in a weekly manner throughout much of the growing season. The answer is in their modes-of-action (MOA). Protectant fungicides have MOAs that affect (i.e., prevent) fungal development in different manners. In inorganic compounds, sulfur (M2) prevents fungal growth (i.e., spore germination) by disrupting electron transport in the mitochondria. Coppers (M1), on the other hand, cause non-specific denaturing of proteins. Chlorothalonil (M5) inactivates amino acids, proteins and enzymes by combining with thiol (sulfur) groups. In all cases, a protectant fungicide’s chemistry disrupts fungal growth and development either non-specifically or in multiple manners. Because of this, there is a much lower chance for fungi to develop resistance to them.

Protectant fungicides are contact fungicides, meaning they must be present on the leaf surface prior to the arrival of the fungus and must then come into direct contact with the fungus. Protectant fungicides can be redistributed on the leaf surface with rainfall or overhead irrigation, but can also be washed off by too much of either! Remember, that with protectant fungicides, any new growth is unprotected until the next protectant fungicide is applied, in other words, protectant fungicides are not systemic or have translaminar activity like some of the newer chemistries.

Protectant fungicides should be tank-mixed with fungicides with higher risks for resistance development. Protectant fungicides used in this manner will help slow (or reduce the chances for) fungicide resistance development on your farm. In any case, it’s best to always follow the label and tank mix protectant fungicides with those fungicides with a high-risk for resistance development when required to do so.

Vegetable Diseases of the Week

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

Phytophthora crown rot of summer squash causing plant to collapse. Base of stems will turn soft, black with greasy, white sporangia (spores) developing on infected stem tissue.

Suncald injury on stems of newly transplanted pepper seedlings caused by stems laying against edges of black plastic mulch on hot, sunny days. Note: Secondary pathogens such as Alternaria can infest bleached out areas of stems over time.
Preparing Your Farm Food Safety Plan
Part 3: Answering the General Questions Portion of Your Farm Food Safety Plan, Introduction and Farm Worker Health and Hygiene
Meredith Melendez, Mercer County Senior Program Coordinator and Wesley Kline, Ph.D., Cumberland County Agricultural Agent

The purpose of the General Questions portion of your farm food safety plan is to cover the broad details of your plan. Who is responsible and how to reach them, worker health and hygiene, pesticide usage, traceability and self auditing are the topics that should be covered. Below is an outline along with suggested wording that may work for your farm food safety plan for the first two sections, the introduction and farm worker health and hygiene.

Introduction
The first paragraphs should include the following:
✔ Who at the farm supervises and implements the food safety plan and how this person can be contacted in case of a problem.
✔ Who at the farm is the back up to the farm food safety plan supervisor and how they can be contacted in an emergency.
✔ The exact location of the farm and what on the farm is included in the audit.
✔ Indicate if you pack only your own product, or if you purchase additional product to pack.

Farm Worker Health and Hygiene
A large part of the General Questions portion of your plan should be dedicated to farm worker health and hygiene on the farm. The following are suggestions as to topics that the general questions part of your plan should include.

Employee Training/Signage
✔ Employees are trained and instructed on how to practice proper hygiene.
✔ Signs are posted at all wash stations to encourage employees and visitors to wash their hands. Sign should be posted in other languages depending on the native tongue of your workers.
✔ A visitor sign is posted on the main door explaining visitors’ responsibilities.
✔ A discipline policy is in place to use if an employee is found to not be following the farms food safety policy.

Water
✔ Potable water is always available for employees in the packinghouse and in the fields.
✔ Water testing lab procedures and reports are documented.

Restrooms/Break areas
✔ Restrooms are cleaned and maintained on a regular basis (at least weekly)
✔ Restrooms are supplied with toilet paper, single use paper towels, and soap
✔ Hand washing facilities are supplied with water that meets the microbial standard for drinking water.
✔ Smoking and eating areas are separate from production and packing areas.

Employee Illness/Injury
✔ Employees that have diarrhea disease, or any other infectious diseases, are not allowed to work directly with fresh product, but may be provided with other jobs if appropriate.
✔ What will your procedure be for an employee with a cut or abrasion while at work?
  Example: Workers are instructed to seek prompt treatment with clean first aid supplies for cuts, abrasions and other injuries. A first aid kit is located in the packinghouse and in each field truck. Workers are required to report any injury to their supervisor who will determine if the employee can continue to work.
✔ Should equipment become contaminated with bodily fluids what will be done to sanitize the equipment?
  Example: When blood or bodily fluid comes in contact with surfaces those surfaces will be cleaned and sanitized with a chlorine solution before using those surfaces for produce.
✔ Should product become contaminated with bodily fluids, how will the produce be disposed of?
  Example: When blood or bodily fluid comes in contact with produce, the product is immediately removed from the area in sealed plastic bags and destroyed.

See Food Safety Plan on page 7
Encouraging Beneficial Insects on your Farm

Emelie Swackhamer, Horticulture Extension Educator, Penn State Extension

Reprinted from the Vegetable and Small Fruit Gazette, Penn State Extension, May 2012

Beneficial insects do a lot of pest management naturally, with little help from us. Lady beetles, syrphid fly larvae, and lacewing larvae eat soft-bodied pests like aphids and scale crawlers. Some parasitoid wasps lay eggs on aphids and the developing young wasps kill their aphid host. Minute pirate bugs eat thrips and aphids. These beneficial insects and others are part of the natural fauna of your farm.

Here is a link to a great fact sheet from the University of Maine that shows what some of the most common beneficial insects look like: http://umaine.edu/publications/7150e.

I recently heard Carol Glenister of (Integrated Pest Management) IPM Laboratories talk about “Guardian” plants and how they can be used to enhance beneficial insect populations. This article summarizes some of the things I learned from her.

Many people are interested in having populations of beneficial insects inhabit their fields, high tunnels and greenhouses. One strategy is to purchase beneficial insects from a commercial supplier and release them. This is known as augmentation, and can be an effective way to manage pests. Keys to successful augmentation include properly identifying the pest, choosing a beneficial that is proven to be effective, having an adequate ratio of prey to beneficial, and following all the directions carefully. Even if you do all these things exactly right, there are no guarantees that augmentation will always work. There are so many variables that it is impossible to always get it exactly right.

If you can enhance the populations of naturally occurring beneficial insects on your farm, you may be able to get a lot of pest control with less effort. So, what can you do? Of course you want to use pesticides judiciously. Choose the least toxic pesticide possible with short residual activity. Spot spray or time your sprays to minimize contact with beneficials. What else can you do? Many beneficial insects eat nectar or pollen. Provide habitat by planting flowering plants, especially sweet alyssum, sunflowers, lantana, marigolds or fennel. Plant a row or two in your vegetable field. It is easy to do, you will probably be able to see beneficials like syrphid flies hovering over the flowers...and it is pretty too!

Researchers are working to figure out ways to encourage natural beneficials in greenhouses and high tunnels. One system involves growing “banker” plants which can support natural enemies and their prey. Briefly, the researchers grow barley in containers, and then they intentionally infest the barley plants with a cereal aphid, one that will colonize only grasses. After the aphid population reaches a certain level, they introduce an aphid parasitoid. This parasitoid is a small wasp that lays an egg on the cereal aphid and the developing young wasp kills its aphid host. The young wasp pupates inside the dead “mummified” body of the aphid, and emerges as an adult wasp in several days, and the females will seek out other aphid hosts. This gives greenhouse growers a portable “bank” of pupating aphid parasitoids that can colonize and kill the aphids on broadleaf host plants, such as annual bedding plants or vegetable transplants.

Here is a link to a fact sheet from University of Massachusetts, which describes the aphid banker plant system and how you can produce banker plants yourself: http://extension.umass.edu/floriculture/sites/floriculture/files/pdf/AphidBankerPlantSystem.pdf.

Researchers are also working on ‘Black Pearl’ peppers which will support populations of a type of beneficial minute pirate bug called Orius insidious. Orius will eat thrips and aphids, but can also survive on the pollen of the ‘Black Pearl’ pepper. Keeping a few flowering ‘Black Pearl’ peppers around will encourage populations of Orius to live there. To read more about one of these research projects, go to http://www.southernsare.org/News-and-Media/Press-Releases/Exploring-Biological-Control-of-Greenhouse-Pests.

Another interesting system is using bush beans in a high tunnel where tomatoes are being produced. Two spotted spider mite is often a problem on tomatoes in high tunnels. Bush beans are very attractive to spider mites, so bush beans planted in a tomato high tunnel can serve as a sentinel or indicator plant to monitor for the pest. When spider mites are found on the bush beans, a predatory mite can be introduced. This predatory mite can provide biological control of the spider mites throughout the high tunnel. To read more about this system go to http://www.bugwood.org/arthropod/day2/matteoni.pdf.

Growers should not rely on enhancing natural enemies as their only form of pest management. These systems are intriguing, and definitely worth considering as an addition to your regular pest management strategy, but they cannot replace diligent monitoring and other interventions. Leaving a heavily infested plant in your production area can quickly lead to a pest population getting out of control. You should have a plan, and should know your options before common pest problems arise so you can react to them.

I’m planting some ‘Black Pearl’ peppers and sweet alyssum this year. It can’t hurt, and I am interested to see what kinds of beneficial insects I will find on them.
Spring Weather and Row Covers
Kathy Demchak, Senior Extension Associate, Penn State Educator

Reprinted from the Vegetable and Small Fruit Gazette, Penn State Extension, May 2012

This past summer, fall, winter and now this spring - have been unusual. One item that can help growers deal with the weather changes, at least for plants that are close to the ground, is a floating row cover. There are many different types from which to choose.

Row covers can protect strawberries from cold and wind during the winter, can be used for frost protection on small areas, and can help protect tender plants if you decided to get a head start on planting. Some considerations when purchasing row covers are row cover weight, insulation ability, durability, cost, and light transmittance.

Weight: A heavier row cover would be expected to provide more protection and also be more durable, if all other characteristics were similar. However, comparing the same weight of row cover among different manufacturers is somewhat akin to comparing apples to oranges, as similar weights of row covers from different manufacturers can provide different amounts of protection. It's often better to compare the degrees of protection that a manufacturer says you can expect from a row cover, rather than going strictly by weight.

Insulation ability: As mentioned, this is not strictly related to weight. One big factor is stiffness and structure of the fabric. Softer fabrics tend to insulate better as long as they are dry. They also tend to flatten down and mold themselves to the beds when they get wet, and then don't provide much protection. Personally, I'd rather have a stiffer fabric because I know what to expect out of it - since it performs similarly wet or dry. Also, in my experience, a double layer (even if the bottom layer is an older row cover) provides much more protection than a single layer of the same fabric, and often more than a single layer of a heavier fabric.

Durability: This is one of the top considerations. Row covers that can be used for multiple years are generally a good buy, even if they are more expensive to start with. Just because a row cover is heavier is not a guarantee that it will be more durable. Durability is more closely related to the structure of the fabric. Some have reinforced edges, and others are reinforced within the fabric itself.

Cost: Generally this is related to heaviness of the fabric, but not entirely, and as already mentioned (more than once) row cover weight is not strictly related to durability. It's worthwhile to compare the cost of the row cover on a yearly basis over its expected life, rather than considering just the up-front cost.

See Row Covers on page 7

NOFA-NJ Encourages a New Generation of Farmers
Incubator Farm Program
Set to Debut in Hillsborough

A new program designed to provide a helping hand for beginning farmers is set to debut in the coming year. The Northeast Organic Farming Association of New Jersey (NOFA-NJ) is launching an incubator farm on Duke Farms in Hillsborough that will create a network of solutions to a complex issue – too few beginning farmers and not enough access to farmland. The goal is to once again make small-scale farming a viable profession in New Jersey.

“We are thrilled to offer this new program,” said Eve Minson, Beginning Farmer Program coordinator. “The Incubator Farm is basically a low-risk opportunity for a new farmer to launch a business. Through this three-year program, he or she will have access to land and a chance to test out a business model on a small-scale, build up capital, graduate onto his or her own land and run a successful business.”

According to the United States Department of Agriculture (USDA), the average age of American farmers is over 55 and continues to increase, while the number of young farmers under the age of 25 has declined by 30 percent. At the same time, new people are coming to agriculture and beginning farm enterprises; however, many of these new farmers do not come from farming backgrounds and may not possess the technical or hands-on skills needed to start a successful farming business. In response to this issue, the USDA has begun to grant funds to regionally-based groups to train and support beginning farmers through their Beginning Farmer and Rancher Development Program. NOFA-NJ was a recipient a Beginning Farmer and Rancher Development Grant in 2011.

“Duke Farms is pleased to support this innovative program that promotes farming in New Jersey,” said Timothy M. Taylor, executive director, Duke Farms Foundation. “Obtaining access to land is a major hurdle for most beginning farmers, so we are making 140 acres of our land available for the incubator farm. In addition, we will also help in the preparation of the land by plowing, disking and tilling. Supporting healthy agricultural practices is part of our mission, to encourage and educate people to become good stewards of the land.”

Application information on the Beginner Farmer Program will be available later this year and farming will get underway in the fall of 2012. This project was supported by a three year Beginning Farmer and Rancher Development Program of the National Institute of Food and Agriculture, USDA, Grant #2011-49400-30739.

For more information, visit the NOFA-NJ Website at www.nofanj.org.
Weekly Weather Summary

Keith Arnesen, Ph.D., Agricultural Meteorologist

Temperatures averaged much below normal, averaging 46 degrees north, 49 degrees central, and 49 degrees south. Extremes were 68 degrees at Trenton on the 30th and 28 degrees at Pomona on the 29th. Weekly rainfall averaged 0.19 inches north, 0.05 inches central, and 0.23 inches south. The heaviest 24 hour total reported was 0.36 inches at Newton on the 23rd to 24th. Estimated soil moisture, in percent of field capacity, this past week averaged 98 percent north, 94 percent central and 96 percent south. Four inch soil temperatures averaged 50 degrees north, 53 degrees central and 52 degrees south.

Weather Summary for the Week Ending 8 am Monday 4/30/12

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*FEBRUARY GROWING DEGREE DAY TOTALS 59

Light transmittance: The manufacturer should have data on the amount of light that a row cover allows through. In radiational frost events – nights with a clear sky, a row cover that allows sunlight through (even down to 60% transmittance is OK) can result in a few degrees more protection than a heavy one that does not allow much light through (30% transmittance) – if you are in a situation where black plastic mulched beds can gather heat during a sunny afternoon.

Do I have a favorite row cover, you ask? I probably can’t endorse a particular manufacturer, but at least for now, there’s a midweight (1.25 oz.) row cover that I like that has the light transmittance of a relatively light cover, the protection of a midweight one, and excellent durability. You also might want to talk to other growers to compare notes on performance.

By the way, if you are wondering what else to plan for… NOAA long-term temperature and precipitation forecasts can be found at http://www.cpc.ncep.noaa.gov/products/forecasts. You can just click on the time period you are interested in once you get to that page. For some time period choices where you have a choice of maps or text forecasts, I find the maps are easier to understand quickly. Remember that the forecasts are compared to “normal”, so you need to be keep in mind what “normal” is (or was). ☑

Food safety Plan from page 4

Pesticide Use

✔ Persons applying pesticides and any post harvest materials are licensed and a copy of their license is on file. Records of agricultural pesticide usage are maintained and are held in the farm office. Pesticide method of use on the farm is governed by the pesticide label.

✔ Waste pesticides generated from farm use will be disposed of on-site according to the product label. Waste pesticides from a lack of use will be kept in their original containers and disposed of through EPA buy-back programs, returned to the retailer or saved for a local community hazardous waste collection program. Empty pesticide containers will be returned to the retailer when possible; otherwise the containers will be held until they can be appropriately recycled.

Next week: Answering the General Questions Portion of Your Farm Food Safety Plan – Traceback and Self-Audit. ☑
PLANT & PEST ADVISORY

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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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**The Vegetable Crops On-Line Resource Center** website is a dedicated source for information on production, insect, weed, and disease management, food safety, marketing and more:

[www.njveg.rutgers.edu](http://www.njveg.rutgers.edu)

For back issues of the Plant & Pest Advisory:

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