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Cultivating Cumberland

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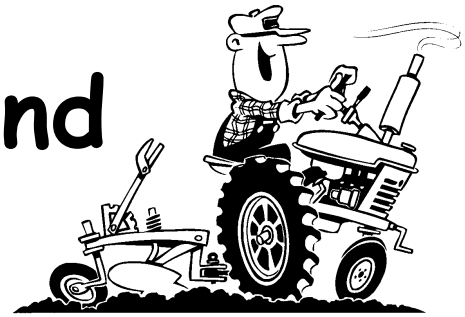

Inside this issue:

Pesticide Applicator or Dealer Storage Inventory and Cover Letter Submittal Due May 1st to Fire Department

All licensed pesticide applicators, as well as dealers, who store pesticides are required by law to send a copy of their storage inventor(ies) with an explanatory cover letter to the local fire company by May 1st each year. In New Jersey, all licensed pesticide applicators and dealers who store pesticides are required per N.J.A.C. 7:30-9.5 to maintain a list of the pesticides stored *or likely to be* stored during the license year. A storage inventory should be kept separate from the actual storage area.

The Rutgers NJAES Pest Management Office 'Records & Forms' webpage provides two editable templates for submittal to the Fire Department that meet the minimum regulatory requirements. See the webpage at: www.pestmanagement.rutgers.edu/PAT/record_forms.htm. You may also devise your own format to suit your own needs as long as it meets the requirements of N.J.A.C. 7:30-9.5.

1. Pesticide Storage Inventory Form - The purpose of the inventory is to provide local fire departments with an accurate description of things stored by location in case of fire or other emergency. We suggest filling out one form per storage address of your establishment.

2. Cover Letter - All licensed pesticide applicators and dealers who store pesticides are required by law to send a copy of their storage inventor(ies) with an explanatory cover letter to the local fire company. Specifically, NJDEP regulations provide: "The cover letter shall explain that this list has been sent pursuant to N.J.A.C. 7:30-9.5(b).4".

New Jersey regulations also specifically require a written description or diagram depicting the exact location of the area on the property where the pesticide is stored. Rutgers template cover letter provides a space to write that description, or indicate that a diagram is enclosed. Submittal to the fire department is required annually by May 1st of each year (this does not pertain to pesticides stored for personal use, or to those storing pesticides at loading or application areas for less than 7 days).

Applicators and dealers must keep the cover letter on file for a minimum of three years and should have it available for NJDEP upon request.

Food Safety Equipment Loans Available

Wes Kline, Rutgers University

Attached to this newsletter is a fact sheet from the Farm Service Agency on the Farm Storage Facility Loan Program. This program has expanded to include food safety-related equipment. This includes most things you would need to upgrade a packinghouse (graders, sizers, washers, cold rooms, cement flooring, etc.). If you are thinking about upgrading your equipment contact the FSA office – 1318 South Main Rd., Building 5, Suite A, Vineland, NJ 08360; Tel 856-205-1225.

Sanitizers in the packinghouse

There seems to be some confusion as to the difference between cleaning a packing house and using a sanitizer. Cleaning is the physical removal of dirt from surfaces by using clean water and soap or detergent. Water does not have any sanitizing properties! Sanitizing is the treatment of a clean surface with a sanitizer such as chlorine, Quaternary Ammonium, peroxyacetic acid, etc. to reduce or eliminate microorganisms. Remember you cannot sanitize a dirty surface! Cleaning always comes first! Remember, when using a sanitizer, to read the label. Soap or detergents normally need to be rinsed off before applying a sanitizer. You should set up a cleaning schedule for packing lines, floors, ceilings, walls, light fixtures, etc.

Postharvest water used to wash produce in a packinghouse must be potable. If a dump tank is used, a sanitizer must be added to the water. The sanitizer is not meant to “sanitize” the product, but to prevent the spread of contamination. It only takes one fruit that is contaminated with a pathogen to spread in the water. There are several sanitizers that can be used on produce. The most common and affordable is chlorine. Others include peroxyacetic acid, hydrogen peroxide, etc. There are both organic and non-organic products available. All water sanitizers must be monitored and the information recorded. Remember to read the label and follow directions on monitoring the products.

Avian Flu and Backyard Chickens

Jenny Carleo, Rutgers Ag Agent Cape May County

The Avian Flu H5N2 - High Pathogenic Avian Influenza (HPAI) is active in the US including Kentucky, (not yet in NJ). This virus typically has a low impact on humans but can devastate small flocks. USDA warns that it is quickly carried by wild foul. Anyone with poultry should read this fact sheet http://www.aphis.usda.gov/stakeholders/downloads/2015/sa_hpai_kansas.pdf . There is also more information on AI in NJ and recognizing symptoms on the NJDA webpage: http://www.state.nj.us/agriculture/avianinfluenza.htm#Signs

Thanks to Charlie Dupras (longtime Rutgers Poultry Agent) who alerted me to the devastating impact this virus can have on backyard flocks

Providing Notice of Loss and Applying for Payment for NAP

FSA Atlantic/Cape May/Cumberland County, Vineland, NJ

When a crop or planting is affected by a natural disaster, producers with NAP coverage must notify FSA office where their farm records are maintained and complete Part B (the Notice of Loss portion) of form CCC-576, "Notice of Loss and Application for Payment." This must be completed within 15 calendar days of the earlier of:

- A natural disaster occurrence;
- The final planting date if planting is prevented by a natural disaster;
- The date that damage to the crop or loss of production becomes apparent; or
- The normal harvest date.

NEW as of 2015 crop year

Producers of hand-harvested crops and certain perishable crops must notify FSA within 72 hours of when a loss becomes apparent. The crops subject to this requirement will be listed in the NAP Basic Provisions. To receive NAP benefits, producers must complete form CCC-576, "Notice of Loss and Application for Payment," Parts D, E, F, and G, as applicable, within 60 days of the last day of coverage for the crop year for any NAP covered crop in the unit. The CCC-576 requires acceptable appraisal information. Producers must provide evidence of production and note whether the crop was marketable, unmarketable, salvaged, or used differently.

Farm Loan Availability

There are several types of Farm Loans available from the Farm Service Agency:

- Direct Operating or Farm Ownership Loan- Maximum
- Emergency Loans
- Guaranteed Operating Loan or Farm Ownership Loan
- Microloans
- Youth Loans

Contact Farm Loan Manager Ellen Schmidt at 856-205-1225 Ext. 121 or at Ellen.Schmidt@nj.usda.gov or Farm Loan Program Technician Dawn Freeman at 856-205-1225 Ext. 117 or at Dawn.Freeman@nj.usda.gov for more information.

United Fresh Announces Bill Pool Of Wegmans Food Markets As 2015 Technical Award Winner

The United Fresh Produce Association will present the 2015 United Fresh Technical Award at the Opening General Session of the 2015 United Fresh Convention on Tues., June 9 in Chicago. This award is presented to an individual who has made significant technical contributions to the fresh produce industry. We are pleased to announce Bill Pool, Manager for Produce Safety at Wegmans' Food Markets, Rochester, New York as the 2015 Technical Award recipient.

Bill earned a B.S. in Food Administration (1970) and an M.S. in Service Management (1996) from the Rochester Institute of Technology. He began his career serving in the U.S. Army Veterinary Corps from 1970-1973, auditing facilities providing food to the U.S. military. In this role, he also monitored compliance with contract requirements and performed sanitary audits on major commissary facilities.

In 1973, Bill joined Wegmans' consumer affairs department. Over a span of 25 years, Bill was responsible for food safety & regulatory compliance in all of Wegmans' retail food stores. He also was involved with Wegmans' program to increase grower adoption of IPM practices and marketing of fresh products grown with documented IPM practices.

Bill transitioned to Wegmans' produce team in June 1998, where he worked with employees, buyers and suppliers to understand and identify best growing and best post-harvest handling practices. He is currently involved in Wegmans' efforts to move local growers toward greater implementation of GAPs.

"Bill is an icon of the United Fresh Food Safety & Technology Council where his wisdom and reasonable approach have been critical to the success of many produce food safety initiatives the Council has driven for the industry," said Dr. David Gomabs, United Fresh's Senior Vice President of Food Safety and technology. "As an advocate of food safety practices at all stages of the supply chain long before the need was generally recognized, Bill has more than earned this recognition. I personally thank him for his dedication and contributions to the fresh produce industry. " The 2015 Technical Award will be bestowed Tues., June 9, 8:00–9:45am, Vista Ballroom, McCormick Place Convention Center.

Spear Damage in Asparagus

Dr. Andy Wyenandt, Rutgers University
Plant & Pest Advisory April 22, 2015 Vegetable Crops

Spear damage in asparagus can be caused by diseases such as Phytophthora, spear and crown rot and purple spot. However, other environmental factors during the spring can damage spears as they emerge from the soil.

Wind – Periods of heavy winds during emergence will cause spears to bend.Winds can cause one side of the spear to dry out quicker than the other causing the spear to bend and point in the direction of the prevailing wind.

Fig. 1 Wind damage of asparagus spears. Notice how all spears are pointed in the same direction

Stones/Rocky Soils – Asparagus grown in stony/rocky soils can suffer mechanical damage as spears emerge from the soil.Stones can cause mechanical abrasions on spears damaging epidermal cell layers as spears emerge from the soil. Spears with mechanical injury such as this will become bent or contorted with severe bends and may also develop loops as the side of the spear that was undamaged continues to develop (Fig. 2).

Fig. 2 Mechanical injury on asparagus. Wounding causes spears to bend because one side of the spear

Other Causes – Spear damage can also result from feeding injury caused by cutworms, slugs and other insects. Insect feeding on one side of the spear will reduce the growth rate on the damaged side and causes spears to curve as the healthy side of the spear continues to develop.Occasionally curved or misshapen spears are observed with no apparent mechanical injury, insect feeding or disease. This damage may be due to unseen injury to the crown by cutting knives, crown rotting pathogens, or environmental stress such as overcutting (Fig.3)

Fig. 3 The 'nicking' of spears by a knife during the harvest of other spears in the crown will cause spears to develop poorly and allow "opportunistic" pathogens to invade the spear.

Controlling Purple Spot in Asparagus

Dr. Andy Wyenandt, Rutgers Unviersity, Plant & Pest Advisory April 21, 2015

Purple spot, caused the soil-borne fungus, *Stemphylium vesicarium*, can cause problems in cool, wet springs as well. Symptoms, just like its name, include numerous, sunken oval-shaped spots on spears during the harvest season and more importantly on ferns and stalks during the summer months as long as conditions are ideal for its development.

Twelve hours of wetness is needed for infection and the disease is exacerbated by wind-blown sand injury. Heavy purple spot infection during the summer will lead to premature defoliation which will decrease carbohydrate reserves for the next production season. With the season we had last year and the wet spring we've had thus far this season, pressure due to purple spot may be high. Control of purple spot can be difficult because of management issues (i.e., the mowing and chopping up and leaving of old fern material in the field) and because fungicides can't be applied during the harvest season. Growers who had pre-mature defoliation issues last year may expect problems this spring. Controlling purple spot begins with preventative fungicide applications during summer and fall by reducing infections to ferns and stalks. Weekly scouting and timely fungicide applications once fern stalks are full size should be done. Apply and rotate azoxystrobin at 6.2 to 15.5 fl oz 2.08F/A or chlorothalonil at 2.0 to 4.0 pt/A.

Early-Season Pythium & Phytophthora Control in Pepper and Tomato Crops

Dr. Andy Wyenandt, Rutgers University, Plant & Pest Advisory April 21, 2015

"What should I do to help prevent Pythium and Phytophthora in my pepper and tomato crops early in the season?" is a question most often asked this time of year. In the past, the answer was simple. Apply mefenoxam (Ridomil Gold SL, Ultra Flourish, 4) or metalaxyl (MetaStar, 4). Problem solved, right? Not exactly, with resistance development in Phytophthora (*P. capsici*) to both mefenoxam and metalaxyl, the correct answer isn't as simple anymore. It's important to remember that both chemistries will work very well **as long as** resistance hasn't been detected on your farm. How do you know if you have resistance? The easiest way is to follow efficacy.

If the chemistries no longer provide the control they once did, then there is a good chance you have mefenoxam-insensitive Phytophthora populations present on your farm. Remember, once resistance develops it can linger around for a very long time. On the flip side, if you haven't used either of these chemistries in the past 4 or 5 years, the *P. capsici* population may have reverted back to being sensitive to mefenoxam or metalaxyl and these chemistries might be highly effective once again. Importantly, proper crop rotation and resistance management is critical before resistance has had the chance to develop. Current options for pre-transplant applications include a Ranman (cyazofamid, 21) drench up to one week before transplanting or as a seedling tray drench at transplanting for Pythium and Phytophthora in tomato, pepper, and eggplant. Previcur Flex (propamocarb HCL, 28) has a label for the suppression of Pythium and Phytopthora in tomatoes and peppers. Phosphite fungicides such as ProPhyt, Rampart, and K-Phite (FRAC code 33) can also be applied as a pre-transplant drench in the greenhouse. Additionally, there are a number of biologicals such as *Trichoderma*, *Streptomyces*, and *Bacillus* products which can also be used in the greenhouse as drenches or incorporated in to the soilless mix to help suppress soil-borne pathogens. Remember, biologicals need to be applied without conventional fungicides and on a regular basis. At transplanting applications now include Ranman (cyazofamid, 21) in the transplant water or through drip irrigation for Pythium control. There is a section 2ee for the use of Previcur Flex (propamocarb HCL, 28) + Admire Pro (imidacloprid) in transplanting water for Pythium and insect control. Presidio (fluopicolide, 43) has a label for drip application for Phytophthora control when conditions are favorable for disease development. Additionally, phosphite fungicides, Pro-Phyt, Rampart, and K-Phite (FRAC code 33) can also be applied through drip irrigation at transplanting to help suppress Phytophthora blight. Unlike in past, there are a number of good options for early-season control of these diseases. It just takes a bit more planning ahead of time. For further details on use and crop labeled please refer to the specific fungicide label. Remember the label is the law.

Growers Guide to Protectant Fungicides

Dr. Andy Wyenandt, Rutgers University, Plant & Pest Advisory April 22, 2015

Protectant (contact) fungicides, such as the inorganics (copper, FRAC group M1) and sulfur (FRAC code M2); the dithiocarbamates (mancozeb, M3), phthalimides (Captan, M4), and chloronitriles (chlorothalonil, M5) are fungicides which have a low chance for fungicide resistance to develop. Protectant fungicides typically offer broad spectrum control for many different pathogens.

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. Protectant fungicides have modes-of-action that 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 denaturation 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 nor 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 protectants with higher risk fungicides when suggested or required to do so.

Commercial Recommendations Updated

The following commercial recommendation manuals have been updated for 2015:

- Commercial Blueberry Pest Control Recommendations for NJ, 2015. Available at: http://njaes.rutgers.edu/pubs/publication.asp?pid=E265
- Commercial Cranberry Pest Control Recommendations for NJ, 2015. Available at: http://njaes.rutgers.edu/pubs/publication.asp?pid=E308
- Commercial Vegetable Production Recommendations, 2015. Available at your local Extension Education Office; $20 each. Also available at: http://njaes.rutgers.edu/pubs/publication.asp?pid=E001
- New Jersey Commercial Tree Fruit Production Guide, 2015. Available at: http://njaes.rutgers.edu/pubs/publication.asp?pid=E002

Strawberry Producers Twilight Meeting (7:00pm-8:30pm)

AND

NJFB Young Farmers and Ranchers Committee Meeting (6:00pm to 7:00pm)

Tuesday, May 26th

Grasso Farms at Mantua Creek
221 Ogden Station Road, Thorofare, NJ (West Deptford Twp.)

Michelle Infante-Casella, Rutgers Extension Gloucester County

The NJ Farm Bureau's Young Farmers and Ranchers Committee is invited to a spring strawberry meeting and will meet as a committee prior to the educational twilight event. Gloucester County Board of Agriculture Young Farmer and Ranchers Director, Michael Grasso, GCBA YF&R Director, will co-host the meeting with a light dinner. The Rutgers Cooperative Extension Agricultural Agents will host a strawberry twilight meeting to view and taste newly released Rutgers strawberry varieties. We will also provide updates about strawberry diseases and controls. There will also be information on NJDEP Pesticide regulations and EPA Worker Protection Standards requirements. Please join us. Any questions call 856-307-6450 x-1.

Agenda:

7:00 pm Strawberry Variety Releases from Rutgers and Overview of Program
Bill Hlubik, Agricultural Agent, Rutgers NJAES CE of Middlesex County

7:30 pm Strawberry Disease Identification and Controls
Dr. Andy Wyenandt, Specialist in Vegetable Pathology,
Rutgers Agricultural Research and Extension Center, Bridgeton

8:00 pm Pesticide Safety and Worker Protection Standards Requirements
Michelle Infante-Casella, Agricultural Agent, Rutgers NJAES CE of Gloucester County

8:30 pm Questions and Answers – Concluding with Pesticide Credits

Pesticide Recertification Credits have been requested for this meeting.

Suppressing Soil-borne Pathogens in Organic Transplant Production

Dr. Andy Wyenandt, Rutgers University, Plant & Pest Advisory April 21, 2015

Pathogens such as *Fusarium*, *Pythium*, *Phytophthora*, *Thielaviopsis* and *Rhizoctonia* that cause pre- and post-emergent damping-off can cause serious problems in organic transplant production.

Remember, *Phytophthora* and *Pythium* are more likely to cause damping-off in cool, wet soils. Conversely, *Rhizoctonia* and *Fusarium* are more likely to cause damping-off under warmer, drier conditions. In general, *Pythium* tends to kill seedlings before they emerge whereas *Rhizoctonia* and *Fusarium* tend to kill seedlings after emergence. There are exceptions to the rules, but none the less, all damping-off pathogens can cause serious losses if not identified and controlled properly. Remember seeds or transplants that sit in cold, wet soils for prolonged periods of time are more prone to damping-off. Outside weather conditions also play an important role in potential disease development in spring transplant production. Most importantly, daily watering schedules need to be monitored and/or adjusted so as not to overwater during cool, cloudy periods or underwater during bright, warm, sunny days. Always do your watering early enough in the day so leaves are dry going into the overnight.

Taking preventative measures to mitigate potential problems caused by damping-off pathogens is the best approach; and is one everyone needs to consider prior to and during the organic transplant production season. There are a number of OMRI-approved biological controls that can be incorporated into the soil media prior to seeding, as a seed treatment, or as a drench. Remember biological control agents can be fungi or bacteria that work by various mechanisms which include antibiosis, parasitism, induction of host-plant resistance, and competition. *Trichoderma virens* (SoilGard 12G, Certis USA) colonize host roots and is antagonistic to *Pythium* and *Rhizoctonia*. Plantshield HC and Rootshield WP (*Trichoderma harzianum*, Bioworks, Inc.) also colonize roots and provide protection against root pathogens such as *Pythium, Rhizoctonia, Fusarium, Cylindrocladium* and *Thielaviopsis.* Actinovate (*Streptomyces lydicus,* Natural Industries, Inc.) is a bacterium labeled for *Pythium, Phytophthora, Fusarium, Rhizoctonia, and Verticillium. Mycostop*

(Streptomyces griseoviridis, Agbio, Inc.) also colonizes roots and is labeled for control or suppression of many root rot and wilt pathogenic fungi such as *Pythium*, *Fusarium*, *Rhizoctonia*, and *Phytophthora*. All of these products work best if they are incorporated or applied before any damping-off occurs. This means incorporating them into the media mix prior to seeding, or applying them as a seed treatment, or as a drench shortly after seeding *and* continuing with follow-up treatments during the remaining transplant production season. The key to controlling and/or suppressing damping-off pathogens with biological controls is keeping the biological populations high and continually present on root surfaces of the host and by following good cultural practices. For more information on the products mentioned above please see Table E-15 on pages E46-E48 of the 2015 Commercial Vegetable Production Recommendations. Applications of the products mentioned above should be done according to the manufacturer's label.

Disease Control in Various Crops

Dr. Andy Wyenandt, Rutgers University, Plant & Pest Advisory April 21, 2015

Asparagus: Phytophthora crown and spear rot

In fields with low spots (poorly drained soils) or fields with a history of crown and/or spear rot apply Ridomil Gold 4SL (mefenoxam, 4) at 1.0 pt/A, or Ultra Flourish 2E/A (mefenoxam, 4) at 2.0 pt/A, or MetaStar 2E (metalaxyl, 4) at 2.0 qt/A over beds just before 1st harvest. For new plantings, apply the same after planting or after crown covering. Do not apply Ridomil or MetaStar one day prior to harvest or illegal residues may result. For more information please see 2015 New Jersey Commercial Vegetable Production Recommendations Guide.

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, MetaStar (metalaxyl, 4) see label, or azoxystrobin at 0.40 to 0.80 fl oz 2.08SC/1000 row ft (for Rhizoctonia only), or Ridomil Gold at 1.0 to 2.0 pt/A 4SL *plus* azoxystrobin at 0.40 to 0.80 fl oz 2.08SC/1000 row ft. in a band up to 7 in. after seeding. To help control damping-off pathogens in Collards and Kale only: Apply Uniform (mefenoxam + azoxystrobin, 4 + 11) at 0.34 fl oz 3.66SE/1000 ft row. For more information please see 2015 New Jersey Commercial Vegetable Production Recommendations Guide.

Cole crops: Downy Mildew and Alternaria

Symptoms of downy mildew include purple to yellowish-brown spots on upper leaf surfaces. A grayish-white spore mass will develop and cover the underside of leaves under ideal temperatures (night temperatures of 46 to 61°F and day temperatures below 75°F. Downy mildew can kill young plants. Heavily infected leaves may drop providing entry points for bacterial infections (black rot and soft rot). Symptoms of Alternaria on infected leaves include small, expanding circular lesions with concentric rings that may have a 'shot-hole' appearance as lesions age. Heavily infected seedlings may result in damping-off. Control of Downy mildew and Alternaria begin with preventative fungicide applications. Please refer to pages F34-35 of the 2015 NJ Commercial Vegetable Production Recommendations to determine which fungicides are labeled for each specific crop and disease.

Leeks (overwintered, spring transplanted): Purple blotch

Purple blotch may survive on infected plant material in overwinter plantings and may cause problems in spring transplanted fields and seedbeds. As the weather begins to warm up and spring showers arrive Purple blotch may become problematic in some fields. Symptoms of Purple blotch include tannish-brown, elongated, concentric, circular lesions with chlorotic margins with lesions running parallel with leaf veins. Control of Purple blotch begins with preventative fungicide applications.

Alternate and/or tank mix chlorothalonil (M5) at 1.5 to 3.0 pt 6F/A the following FRAC group 11 fungicides on a 7 to 10 day interval:

- azoxystrobin (FRAC group 11) at 6.0-12.0 fl oz 2.08SC/A
- Cabrio (pyraclostrobin, 11) at 8.0 to 12.0 oz 20EG/A

- Pristine (pyraclostrobin + boscalid, 11 + 7) at 10.5 to 18.5 oz 38WP/A, or

FRAC group 3 fungicides:

- Folicur (tebuconazole, 3) at 4.0 to 5.0 fl oz 3.6F/A
- Inspire Super (difenconazole + cyprodinil, 3 + 9) at 16.0 to 20.0 fl oz. 2.82SC/A, or
- Endura (boscalid, 7) at 6.8 oz 70WP/A

Applications of azoxystrobin, Cabrio, or Pristine at high rates will also help suppress Downy mildew.

Lettuce: Bottom Rot/Drop

Spring 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 (only 2 applications per season), 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 (only 3 applications per season).

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, or Cannonball (fludioxonil, 12) at 7.0 oz 50WP/A beginning one week after transplanting or thinning and again at 10 and 20 days later.

Uniform (mefenoxam + azoxystrobin, 4 +11) applied at transplanting or seeding will help control damping-off pathogens as well as provide early-season downy mildew control. For more information on control of Bottom rot and Lettuce drop and other important diseases of lettuce please see the 2015 New Jersey Commercial Vegetable Production Recommendations Guide.

Controlling Septoria Leaf Spot In Parsley

Dr. Andy Wyenandt, Rutgers University, Plant & Pest Advisory April 22, 2015

Septoria leaf spot in parsley can cause significant losses in fields where it has become established. Like other Septoria's, the leaf spots produced on parsley look much like the leaf spots produced on tomatoes and other crops.

Septoria leaf spot overwinters from year to year on infected debris so long crop rotations of 2 or more years are important to help reduce disease pressure. During the season, SLS will spread rapidly with each subsequent rainfall and/or overhead irrigation event. Therefore, early detection and preventative fungicide applications are keys to successfully controlling SLS. Unfortunately, very few fungicides are currently labeled making control difficult.

Parsley growers who have significant septoria leaf spot issues every year and have seen poor control in fields where FRAC code 11 fungicides have been used considerable in the past should consider no longer using them due to potential resistance issues. Fungicide programs should include Fontelis at a high rate (16.0 to 24.0 fl oz/A) tank mixed with a copper rotated on a weekly basis with Merivon (5.5 fl oz) plus copper. Fontelis has a 3 day PHI and a 72.0 fl. oz season max. Merivon has a 1 day PHI and 33.0 fl. oz season max. Organic farmers should use an OMRI-approved copper fungicide on a regular basis to help suppress septoria leaf spot.

Calendar of Important Events

Indicates the newly added event since last calendar

May 2015

May 5
Status of Beekeeping in New Jersey, Rutgers Cooperative Extension, 291 Morton Avenue, Rosenhayn; 9am-noon; $20. For more information call Tammy Commander at 856-451-2800 x1.

May 6
Household Pests and Honeybees, Rutgers Cooperative Ext. Cape May County, 355 Courthouse/S. Dennis Rd., Cape May Crt. House, NJ. For fee schedule, to register or other info call 609-465-5115 x607.

May 7
Tree Fruit & Grapes, Rutgers Agricultural & Research Extension Center, 121 Northville Road, Bridgeton; 9am-noon; $20. Pesticide credits: 2 for Category 13; 6 each for 1A and PP2. For more information or to register call Tammy Commander at 856-451-2800 x1.

May 12
Pesticides, Rutgers Cooperative Extension, 291 Morton Ave., Rosenhayn; 9am-noon; $20. Pesticide credits: 2 each for categories 10, 1A & PP2 and 6 for CORE. For information or for registration call Tammy Commander at 856-451-2800 x1.

May 13
What is Entomology? - Cape May County Dept. of Mosquito Control; 35 Rt. 47 North, Cape May Court House, NJ. To register, get fee schedule or other info call 609-465-5115 x607.

May 19
Animals: Friend or Foe; Rutgers Cooperative Extension, 291 Morton Avenue, Rosenhayn; 9am-noon; $20. For more information call Tammy Commander at 856-451-2800 x1.

May 21-23
Bee-ginner's Beekeeping, Rutgers Continuing Education, 102 Ryders Lane, New Brunswick. For more information visit: www.cpe.rutgers.edu/BEES

May 26
Strawberry Producers Twilight Meeting (7-8pm) and NJFB Young Farmers & Ranchers Meeting (6-7pm), Grasso Farms at Mantua Creek, 221 Ogden Station Road, Thorofare, NJ. For more info call 856-307-6450 x1.

June 2015

June 8
Subsurface Investigation, Rutgers Continuing Education, 102 Ryder Lane, New Brunswick; $185 Course Code EW0205CA15. For more information call 732-932-9271 or visit: www.cpe.rutgers.edu

June 9-10
Air Quality Permitting, Rutgers Continuing Education, 102 Ryder Lane, New Brunswick; $445; $465 after 5/26, Course Code EN0203CA15. For information call 732-932-9271 or visit: www.cpe.rutgers.edu

June 15
3D Laser Scanning, Rutgers Continuing Education, 102 Ryder Lane, New Brunswick; $185 Course Code EW0206CA15. For more information call 732-932-9271 or visit: www.cpe.rutgers.edu

June 22
Freshwater Wetlands, Rutgers Continuing Education, 102 Ryder Lane, New Brunswick; $275; $295 after 6/8; Course Code EN0401CA15. For information call 732-932-9271 or visit: www.cpe.rutgers.edu

June 22-23
Stormwater Management Rules, Rutgers Continuing Ed, 102 Ryder Lane, New Brunswick; $465; $495 after 7/8, Course Code EW0317CA16. For info call 732-932-9271 or visit: www.cpe.rutgers.edu

July 2015

July 13-14
Radon Measurement Proficiency, Rutgers Continuing Ed, 102 Ryder Lane, New Brunswick; $425 by 6/29; $450 after, Course Code EA0201CA16. For info call 732-932-9271 or visit: www.cpe.rutgers.edu

July 15-17
Radon Mitigation Proficiency, Rutgers Continuing Ed, 102 Ryder Lane, New Brunswick; $715 by 6/29; $745 after, Course Code EA0301CA16. For info call 732-932-9271 or visit: www.cpe.rutgers.edu

July 15-18
IFTA study tour, Washington State, www.ifruittree.org

August 2015

August 8-11
10th Annual NAFDMA Advanced Learning Retreat, Alstede Farms, Chester, NJ. For more information visit: www.farmersinspired.com

August 11-12
North American Strawberry Growers Association Summer Tour, Maryland. For more information visit: www.nasga.org

November 2015

November 9-13
2015 Irrigation Show & Education Conference, Long Beach, California. For more information visit: www.irrigation.org

December 2015

December 1-2
30th Annual Southeast Vegetable & Fruit Expo, Myrtle Beach, South Carolina. For more information visit: www.ncvga.com

December 7-9
Washington State Tree Fruit Association Annual Meeting, Yakima, Washington. For more information visit: www.wahort.org

December 8-10
Great Lakes Fruit, Vegetable and Farm Market EXPO, Grand Rapids, Mich. For more information visit: www.glexpo.com

REGULARLY SCHEDULED MEETINGS

✔ Indicates meeting will be held at RCE of Cumberland County

✔	✔	✔
Pesticide Certification Exam Schedule—Cumberland County **291 Morton Avenue** **Millville, NJ 08332** **(Between Rosenhayn & Carmel)**	**Cumberland County Agriculture Development Board** **Soil Conservation Office** **1516 Highway 77** **Deerfield Street, NJ 08332**	**Cumberland County Board Of Agriculture** **291 Morton Avenue** **Millville, NJ 08332** **(Between Rosenhayn & Carmel)** **7 pm meetings**
2015	2015	2015
May 21 Oct 1	May 13 Jun 10 July 8 Aug 12 Sep 9 Oct 7 Nov 18 Dec 9	May 21 Sep 17 Oct 15 Nov 19 Dec 17
To Register call 609-984-6614 **For directions call 856-451-2800** **********	**Reg. Meetings start at 7 p.m.** **Call DeAnn at 856-453-2211** **********	**For info call Hillary Barile,** **President 856-453-1192** **********

Cumberland County Improvement Authority (CCIA)
Pesticide Container Recycling
9:00 a.m. to 12 Noon
Cumberland County Solid Waste Complex
169 Jesse's Bridge Rd. (located off Route 55 Exit 29)
Deerfield Township, New Jersey
Questions? Call Division of Ag & Natural Resources, NJ Dept. of Ag 609-292-5532

May 15 Jun 19 Jul 17 Aug 21
Sep 18 Oct 16 Nov 20

Sincerely,

James R. Johnson
Agricultural Agent
Nursery Management Commercial
Internet: jjohnson@njaes.rutgers.edu

Wesley L. Kline, Ph.D.
Agricultural Agent
Vegetable & Herb Production
Internet: wkline@njaes.rutgers.edu

Have you visited the Cumberland County website for the

Present and/or past issues of “Cultivating Cumberland”? It’s a great

resource for information and dates……...

http://Cumberland.njaes.rutgers.edu/

RUTGERS
New Jersey Agricultural
Experiment Station

Cooperative Extension of Cumberland County
Extension Education Center
291 Morton Avenue
Millville, NJ 08332-9791

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