

VEGETABLE CROPS HOTLINE

A newsletter for commercial vegetable growers prepared by the Purdue University Cooperative Extension Service

Liz Maynard, Editor
600 Vale Park Road
Valparaiso, IN 46383
(219) 531-4200
emaynard@purdue.edu



vegcropshotline.org

No. 593
February 19, 2015

IN THIS ISSUE

- WELCOME TO A NEW YEAR OF THE VEGETABLE CROPS HOTLINE
- READERS: HELP US IMPROVE THIS NEWSLETTER
- A FAMILIAR FACE IN A NEW ROLE
- PRODUCE FOOD SAFETY – MAKE IT CULTURAL!
- GREENHOUSE HEATING CHECKLIST
- PLANNING FOR SUCCESSFUL VEGETABLE TRANSPLANT PRODUCTION
- BACTERIAL FRUIT BLOTCH UPDATE
- 2015 EDITION OF MIDWEST VEGETABLE PRODUCTION GUIDE (ID-56) AND MIDWEST VEGETABLE TRIAL REPORTS FROM 2014 NOW AVAILABLE
- 2015 STARLIGHT VEGETABLE GROWERS MEETING
- SW INDIANA MELON & VEGETABLE GROWERS ASSOCIATION MEETING
- UPCOMING EVENTS

WELCOME TO A NEW YEAR OF THE VEGETABLE CROPS HOTLINE - (Liz Maynard, emaynard@purdue.edu, 219-531-4200) - Welcome to a new year of the Vegetable Crops Hotline, Purdue Extension's newsletter for people in the business of growing vegetables. Our goal is to provide timely information that will be useful for Indiana vegetable growers. If there is something you'd like to see included, please let us know.

Frequently we include links to web sites or publications available on line. If you aren't able to access these resources, please contact us or a local Extension office to request a hard copy of the information.

We are excited to start the year with a new format for the online version of the newsletter. Each article will appear as an individual post on the site. Articles may be posted anytime they are written, not just every two weeks when an issue is compiled. When an issue IS compiled, it will include all the articles posted since the previous issue. In addition, the new format will permit searching of articles by keyword so it will be easy to locate past articles on a topic of interest.

We will continue producing and mailing a hard copy of the newsletter to subscribers, posting a pdf version online, and sending an email notification when a new issue is published.

This first issue of the year is sent to all who sub-

scribed in 2014 as well as new subscribers for 2015. To continue receiving future copies by US mail, renew your Hotline subscription or Indiana Vegetable Growers' Association (IVGA) membership for 2015 using one of the forms on p. 8-9 of this issue. IVGA members receive the Hotline at no extra charge. When an issue is published we email an announcement to everyone who provides an email. A pdf version of the newsletter is available at <https://ag.purdue.edu/hla/Extension/VegCropsHotline/Pages/Home.aspx>.



READERS: HELP US IMPROVE THIS NEWSLETTER - (Liz Maynard, emaynard@purdue.edu, 219-531-4200, Rick Foster, fosterre@purdue.edu, 765-494-9572, and Dan Egel, egel@purdue.edu, 812-886-0198) - The goal of the Vegetable Crops Hotline is to provide vegetable growers with timely information that helps you to improve your vegetable production and marketing.

This url <http://tinyurl.com/lqw21w> links to a very short survey that will help us to make the Hotline more useful to you. We are especially interested in any comments you have regarding how we can improve the dissemination of information.

This survey should take you less than 5 minutes to complete so we would be very grateful if you would take the time to complete it. This survey is voluntary and anonymous. All information is confidential and no hidden tracking of individual responses is being used. As always, thank you for your assistance.



A FAMILIAR FACE IN A NEW ROLE - (Nick Rogers, rogersn@purdue.edu, 765-496-0108) - Scott Monroe, former Extension ANR Educator in Daviess County, began work in a new role on January 1 as Purdue Extension's new Food Safety Educator.

Scott grew up on a watermelon farm in southwest Indiana and has spent his entire career involved in different facets of the produce industry. He will be based at the Southwest Purdue Agricultural Center near Vincennes; however, his appointment spans all 92 counties.

In his new position, Scott will serve as the point of first connection for produce growers who have issues or questions concerning good agricultural practices and

food safety. He will also be working on a statewide basis to build upon Purdue's previous and current food safety work. This includes development of educational materials, teaching, and involvement in applied food safety research.

Scott can be reached at the Southwest Purdue Ag Center at 812-886-0198 or at 765-427-9910.



PRODUCE FOOD SAFETY – MAKE IT CULTURAL! -

(Scott Monroe, jmonroe@purdue.edu, 812-886-0198) - As we approach the 2015 growing season, produce food safety continues to be an important issue. This year, why not make it one of your goals to create a "culture" of food safety on your farm? Below are some things you can do to get started on that goal during the winter months:

Review (or get started on) your written food safety plan. Winter is an excellent time to review your written food safety plan. As you review the plan, ask yourself if all policies and procedures are written in such a way that they are easily understood. Review any areas, such as hand washing, documentation, etc., that presented particular challenges for the farm, to see if expectations can be clarified or if procedures can be simplified.

Make sure policies and procedures are available in the appropriate languages. As we see an ever-increasing level of diversity in our labor force, it is important to have copies of critical policies and procedures available to workers in their native language. While finding translated materials can, at times, be challenging, the effort will yield a large return if it gives workers a better understanding of the expectations on your farm.

Contact buyers. Winter is a good time to visit with current or potential buyers. Discuss food safety with your buyers to make sure you clearly understand their expectations for your products. Thoroughly understanding buyer expectations allows you to incorporate their requirements into your farm's food safety activities.

Review your worker training program. Worker participation and buy-in is critical if you are to create a culture of food safety on your farm. When reviewing your worker training program, make sure that training is being provided in the appropriate language(s), that training materials are easily understood, and that your current training program is designed to achieve the food safety goals that you have set for your farm. Worker training programs have the potential to set the tone for the entire workforce and should be looked upon as an opportunity, and not just another box to check off for a few points on audit day.

Model the plan. Whether it is team leader, owner, supervisor, or director, if you are in a leadership position, the most important thing you can do to create a culture of food safety on your farm is to model your food safety plan. As a leader, ask yourself if your conduct on a daily basis models your farm's stated com-

mitment to food safety. If there are things that you feel could be improved, develop a plan for doing so. Workers take their cues from leadership. Nothing emphasizes the importance of food safety more than watching managers model the standards and expectations that they expect from others.

Remember, anyone can be good at food safety on the one day of the year that the auditor comes to the farm. However, the expectation of buyers and consumers is that we will be good at food safety every day of the season. Creating a culture of food safety on your farm will help to insure that those expectations are met.



GREENHOUSE HEATING CHECKLIST - (Liz Maynard,

emaynard@purdue.edu, 219-531-4200) - Transplant production will soon begin in earnest if not already underway. It is sensible to check the greenhouse heating system before starting production to make sure it works and won't pollute the air in the greenhouse. This checklist for gas or propane-fire unit heaters highlights some of the major points. If you are not familiar with the system a service technician can help.

General maintenance. Check for physical damage; Remove any obstruction in vent and exhaust systems; Make sure components are supported properly and securely.

Fans and blowers. Lubricate as needed; Check for smooth operation; Inspect for physical damage; Adjust belts as needed; Check connections to electrical power.

Heat exchangers and burners. Inspect exchanger closely for cracks or corrosion where air-polluting gases can escape; Clean inside tube surfaces if required; Inspect for dark discoloration on metal which may be a sign of overheating and if found, investigate cause; Clean gas burners if necessary; Check burner and pilot orifices to make sure they are not blocked. Don't use a wire brush to clean because it can scratch the metal.

Gas controls and supply. Check connections for tight fit and absence of leaks; Check electrical connections; Check that gas is turned on; Check gas pressure for proper setting; Check that gas regulators are not plugged.

Thermostats. Clean if needed; Check wiring and temperature setting; Check location and protection from sun and drafts.

Vents. Remove any obstructions; Check that connections are good and tight; Check drip leg and cleanout cap and clean if necessary.

Air inlets. Check that air inlets are free of obstruction so air needed for combustion can enter the greenhouse. Allow 1 sq. inch for each 1000 BTUs.

References. **Greenhouse Heating Tips, Pre-Season Checklist** <http://www.modine.com/download/1/76-500J.pdf>



PLANNING FOR SUCCESSFUL VEGETABLE TRANSPLANT PRODUCTION - (Liz Maynard, emaynard@purdue.edu, 219-531-4200) - Many Indiana vegetable crops begin life as transplants. If lack of nutrients, lack of light, disease, or other problems slow growth during this stage it may reduce establishment success and/or growth and yield in the field or high tunnel. Good management of the following factors should lead to healthy transplants (see Figure 2).



Figure 2. Flats of cabbage transplants are supported a few inches from floor of greenhouse, providing better air movement and drainage. (Photo by E. Maynard)

Time. Don't seed transplants too early. Overgrown transplants are difficult to manage. If they get so root bound and shaded by other plants in the same flat that growth stops it will take them longer to resume growth in the field. They may become weakened and more susceptible to disease in the transplant tray and field. The ideal time depends on the crop and cell size, as well as the growing temperature. For ease of transplanting the finished transplant should have a well-developed root system that holds the root ball together, a sturdy stem, and be of a size that minimizes injury during the transplant process. Typical growing times are: cucumbers 2-3 weeks; squash and watermelon 3-4 weeks; cantaloupe 4-5 weeks; lettuce 4 weeks; cole crops, tomato, and pepper, 5-7 weeks; and onions 10-12 weeks.

Cell size. Vegetables are commonly grown in trays with cell diameters of ½ inch to 2 inches, and sometimes in pots up to 4 inches. Larger cells or pots usually lead to greater early yield in fruiting crops like tomatoes, peppers, and muskmelons. Larger cells are also easier to manage because the greater soil volume holds more water and nutrients. The ideal cell size for a particular operation will depend on space available for transplant production, crop harvest schedule, and management available for transplant production.

Growing media. Growing media should be free of plant diseases, have pH in desired range, and have enough pore space to allow good drainage and aeration. A laboratory test of the media for pH, electrical conduc-

tivity, and major nutrients is useful to avoid any unexpected problems, whether media is purchased or made on the farm. Many commercial labs have a test package specifically for greenhouse media. Take care when flats are filled to avoid packing media into cells because that will reduce the pore space.

Temperature. Maintaining temperature in the growing medium at the optimum for germination means seeds will germinate and emerge quickly, reducing the chance that pathogens will kill the germinating plant. A heat source under plug trays (see Figure 3) or a germination chamber that provides both humidity and optimal temperature can promote rapid and uniform germination. During production, air and growing medium temperature can be used to control speed of crop development, with faster development at higher temperatures up to the optimum for the crop. Avoid chilling temperatures (below 45-50°F) for warm-season crops. Be aware that cold irrigation water reduces the temperature of the growing media and may chill sensitive crops.

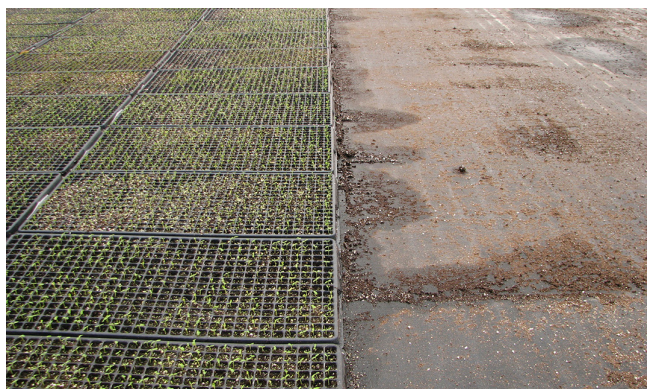


Figure 3. The heat source under these plug trays promotes rapid and uniform germination as long as media does not dry out. (Photo by E. Maynard)

Light. Once seeds have emerged the brightness and duration of light directly influence how quickly the plants develop. Light provides energy to the plant to create the building blocks needed for the plant structure and biochemical machinery. With low light levels, seedlings will develop new leaves slowly, root development will be poor, stems will be thin, and plants will get tall and spindly, or 'stretch.' In a greenhouse natural light can be maximized by eliminating shade-producing objects in and outside the greenhouse, painting surfaces white to reflect light, minimizing condensation on the glazing, and orienting the roof or sidewall of the house perpendicular to the sun's rays. In a growth room, artificial light sources that provide photosynthetically active light (wavelengths between 400 and 700 nanometers) may be used. A solid bank of cool white fluorescent lights provides an inexpensive light source for transplant production (see Figure 4). Lights should be placed as close to the seedlings as possible without injuring them to maximize the light they receive. Artificial light

may also be used in a greenhouse but may not be a worthwhile investment for vegetable transplant production.



Figure 4. Fluorescent lights on a metal rack used for small scale transplant production. (Photo by E. Maynard)

Water. An annual laboratory test of irrigation water is recommended to document alkalinity, electrical conductivity, pH, and mineral content. Well water characteristics can change from year to year, and this information is useful when troubleshooting a production problem or planning a fertilization program. A separate test for microbial quality is also needed for food safety purposes. Watering seedlings is a critical aspect of production. Watering too frequently reduces air available to plant roots and promotes a weak root system. Infrequent watering that leads to crop wilting will over-stress plants leading to long-term growth reduction. Also, when growing media gets too dry, fertilizer salts can become concentrated enough so that roots are injured and become more susceptible to diseases like pythium root rot. Transplant growth can be managed by judicious watering: keeping plants on the dry side will keep growth in check. Uneven distribution of water translates quickly into uneven growth of transplants. The person in charge of watering should understand the importance of the job, know how to determine when irrigation is needed, and use proper technique when hand watering to evenly supply water. If an automated system is used, check it for even distribution and plan for touch up watering in areas that dry out more quickly.

Mineral nutrition. The need for fertilization during transplant production depends largely on the nutrient content in the growing media and how long it takes to produce the transplant. In addition, judicious restriction of nutrients, particular nitrogen and phosphorus, can be used to manage transplant growth. The media soil test recommended above (item 3) will provide information about what nutrients are in the media. Most commercial peat-based or other soilless growing media designed for transplants contains a small amount of 'starter fertilizer' to supply nitrogen (N), phosphorus (P), and potassium

(K). Seedlings grown for more than two or three weeks in this media will usually benefit from additional nutrients. Growing media that contains a significant amount of compost may have enough nutrients that no more fertilization is needed during production. A transplant production system should include a plan to supply mineral nutrients that takes into account nutrients supplied by the growing media and water. (A version of this article was previously published in *Vegetable Crops Hotline* 563.)



BACTERIAL FRUIT BLOTCH UPDATE - (Dan Egel, egel@purdue.edu, 812-886-0198) - Bacterial fruit blotch is a disease that can affect most cucurbits (see Figure 5). However, the symptoms are most often observed on watermelon. A brief description of this disease and some photos can be found at <https://ag.purdue.edu/arp/sw-pap/VeggieDiseasesBlog/Lists/Posts/Post.aspx?ID=21>. This article will introduce new recommendations for this disease in Indiana. Details of these recommendations can be found in the *Midwest Vegetable Production Guide for Commercial Growers 2015 (ID-56)*. Hard copies of the ID-56 are available from Purdue University now for \$10. A free on-line version of the ID-56 will be available soon at mwveguide.org.

Copper products such as those with copper hydroxide or copper sulfate are often recommended for management of bacterial fruit blotch (BFB). However copper products applied too often can cause yellowing of leaves and even yield loss (phytotoxicity). Since BFB is mostly caused by rare contaminated seed lots, I have been reluctant to recommend copper products routinely for watermelon growers. However, the last few years I have observed several growers suffer large losses from this disease. Therefore, I have decided to bring Indiana recommendations in line with those of Georgia and South Carolina. See below.

Instead of applying copper products all season long, apply copper 2 weeks before first female bloom, at first female bloom and 2 weeks after first female bloom. Additionally, application of the product Actigard at 2 of the 3 copper application times listed above is recommended.

Actigard does not have any direct effect on the bacterium that causes BFB. Instead, Actigard 'tells' the plant that it is under attack from a disease, causing the plant to produce defense compounds. Like copper compounds, Actigard can cause yield losses in plants. Therefore, do not use Actigard on plants that have been stressed by weather or other factors. I would use the low rate of Actigard, 0.5 oz. per acre.

If you have any questions or comments about bacterial fruit blotch, these new recommendations or the *Midwest Vegetable Production Guide for Commercial Growers 2015 (ID-56)*, please do not hesitate to contact me. (Originally published 1-9-2015 at veggiediseasesblog.com.)

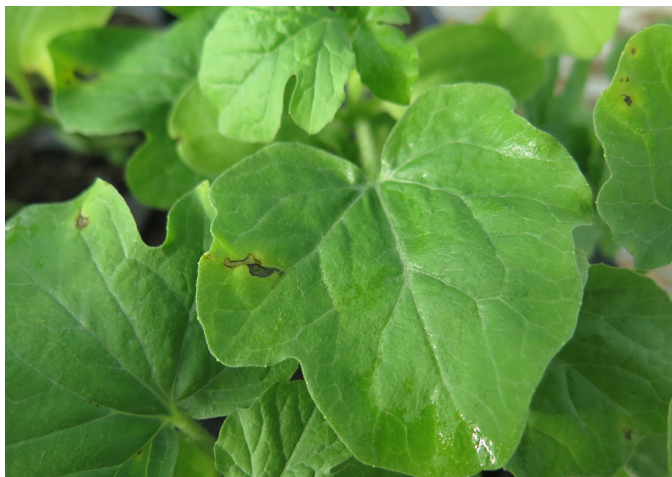


Figure 5. Lesions of bacterial fruit blotch on watermelon seedlings are easily confused with angular leaf spot. Check with a diagnostic lab to be sure. (Photo by Dan Egel)



2015 EDITION OF MIDWEST VEGETABLE PRODUCTION GUIDE (ID-56) AND MIDWEST VEGETABLE TRIAL REPORTS FROM 2014 NOW AVAILABLE - (Liz Maynard, emaynard@purdue.edu, 219-531-4200) - The *Midwest Vegetable Production Guide for Commercial Growers*, or ID-56, remains a popular resource for growers in the region. If you haven't got the 2015 edition yet, don't delay! Members of the Indiana Vegetable Growers Association for 2015 receive a copy at no additional charge and hard copies can be purchased at The Education Store (<http://the-education-store.com> or 888-398-4636) for \$10 plus shipping. To download part or all of the book as a pdf, visit mwveguide.org.

The *Midwest Vegetable Trial Report for 2014* includes trial results for sweet corn, cantaloupe, watermelon, tomatoes, peppers, pumpkins, and more, including several crops in high tunnels. The book is available from The Education Store under the product number 16-18-14. Individual reports or the entire book may be downloaded in pdf format from ag.purdue.edu/hla/fruitveg/Pages/mvtr2014.aspx.



2015 STARLIGHT VEGETABLE GROWERS MEETING IN BORDEN/STARLIGHT, IN - (Gina Anderson, gmanders@purdue.edu, 812-948-5470) - The annual Starlight Area Vegetable Growers Meeting will be held on Thursday, March 5, 2015, in the Barnyard Bash II building at the Joe Huber Family Farm and Restaurant (2421 Engle Rd., Borden, IN 47106). This annual educational program will begin with registration and dinner from 5:30 P.M. to 6:00 P.M., followed by a program by Purdue Extension specialists and the Floyd County Purdue Extension Educator. The program is for anyone with an interest in producing quality vegetables. The dinner is \$10 per person with pre-registration by February 26th.

For nearly 40 years, vegetable growers from across Southern Indiana and Northern Kentucky have been coming to Starlight, IN each winter to learn about the latest information regarding the production of fresh vegetables. Growers (including home gardeners) wishing to spend a few hours learning about the latest information in the field of vegetable crop production are encouraged to attend. There will be an opportunity for participants to visit commercial exhibitors throughout the evening to keep in touch with the latest pest control options, vegetable varieties, tools, and financial products.

Credits will be available for those folks in attendance who hold a Private Pesticide Applicator Certification. Anyone wishing to receive PARP credit will pay a \$10 charge and should bring their license. Commercial Pesticide CCH's in categories 1, 11, and RT have also been applied for participants at this program.

Participants are asked to pre-register by February 26th to help allow for adequate preparations.

Pre-registration may be completed by calling the Floyd County Purdue Extension Office at 812-948-5470 or by contacting Gina Anderson, ANR Extension Educator in Floyd County, by email at gmanders@purdue.edu.



SOUTHWEST INDIANA MELON AND VEGETABLE GROWERS ASSOCIATION MEETING - The Southwest Indiana Melon and Vegetable Growers Association (SWIM) will have their Annual Meeting beginning at 9:00 A.M. EASTERN TIME on Friday, March 6, 2015 at the French Lick Resort & Conference Center; 8670 W. State Rd. 56; French Lick, IN 47432.

We will be meeting in conjunction with the Illiana Watermelon Association again this year.

Membership for the Southwest Indiana Melon and Vegetable Growers Association is \$15 per person and will be collected at the time of registration. Membership fee includes lunch on March 6th and also dinner at the winter technical meeting.

Private Applicator Recertification Program credits

will be available for an additional \$10.00 per person and will be collected at the end of the PARP session. You must attend all the PARP sessions to receive credit. Bring your PARP card or number with you. We also have CCH credits for category 1 and RT available.

Please RSVP for this meeting no later than March 1st. You can call the Southwest Purdue Ag Center at 812-886-0198 or email shoke@purdue.edu with reservations including all those in your household or business that will be attending with you.



UPCOMING EVENTS

Good Agricultural Practices A to Z Workshops. Funded by Purdue, as part of AgSEED Crossroads funding to support Indiana's Agriculture and Rural Development, or by USDA/ISDA Specialty Crops Block Grant to Purdue. Programs focused on cantaloupe are also relevant to other fresh fruits and vegetables; all growers are welcome to attend.

Tuesday, March 17, 2015. 12:30 P.M. – 4:00 P.M. Focus on Cantaloupe. 4-H Dining Hall, Adams County Fairgrounds, Monroe, IN. contact: Brad Kohlhagen, 260-724-5322, bkohlhag@purdue.edu.

Tuesday, March 24, 2015. 12:30 P.M. – 4:00 P.M. Focus on Cantaloupe. Ag Hall, Elkhart County 4-H Fairgrounds, 17746 County Road 34, Goshen, IN. contact: Jeff Burbrink, 574-533-0554, Ext 106, jburbrink@purdue.edu.

Friday, March 27, 2015. Parke County Fairgrounds, 1472 U.S. 41, Rockville, IN. Contact: Jim Luzar, 812-462-3371, luzar@purdue.edu.

Monday, March 30, 2015. Hancock County, location TBD. Contact: Roy Ballard, 317-462-1113, rballard@purdue.edu.

North Central Indiana Vegetable Grower Meeting. March 3, 2015. 9:30 A.M. – 3:00 P.M. Wakarusa Produce Auction, Goshen, IN. Contact: Jeff Burbrink. 574-533-0554, Ext 106, jburbrink@purdue.edu.

Indiana Small Farm Conference. March 5-7, 2015. Danville, IN. <https://ag.purdue.edu/extension/smallfarms/>. Many sessions, including 'Putting Together an On-Farm Food Safety Plan' on Saturday, March 7, 4:00 – 6:00 P.M.

Starlight Vegetable Growers Meeting in Borden/Starlight, IN. March 5, 2015. 5:30 - 8:30 P.M. Joe Huber Family Farm and Restaurant, 2421 Engle Road, Borden, IN 47106. Contact Gina Anderson. 812-948-5470, gmanders@purdue.edu.

Southwest Indiana Melon and Vegetable Grower Meeting. March 6, 2015. French Lick Resort & Casino, 8670 W. State Rd. 56, French Lick, IN. Contact Dan Egel, 812-886-0198, egel@purdue.edu.

University of Kentucky 2015 High Tunnel Webinar Series. Tuesdays, 6:30 – 7:45 P.M. To attend remotely from your home computer: contact Miranda Hileman Combs, 859-218-4384, miranda.hileman@uky.edu. To attend in person at the Purdue Extension office in Hancock County, contact Roy Ballard at 317-642-6566 or rballard@purdue.edu.

February 24. Structure Options, Construction, Ventilation & Temperature Control

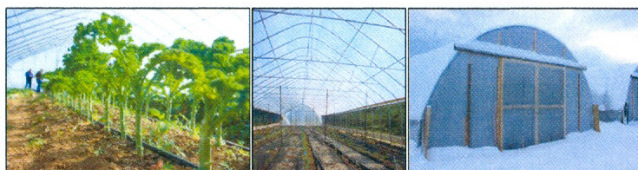
March 3. Organic Production and Certification & Economic and Marketing Considerations

March 10. Crop and Equipment Options and Nutrient and Irrigation Management in High Tunnels

March 17. Insect, Weed and Disease Control in High Tunnels

March 24 (webinar) or March 31 (in person at Hancock County). Producer Views & Series Wrap-up

University of Kentucky 2015 High Tunnel Webinar Series



Learn about season extension in high tunnel production systems in a new webinar series sponsored by the Center for Crop Diversification and the University of Kentucky College of Agriculture, Food and Environment. For more information, and to register, contact Miranda at 859-218-4384 or miranda.hileman@uky.edu.

All webinars will be broadcast from 6:30pm – 7:45pm EST.

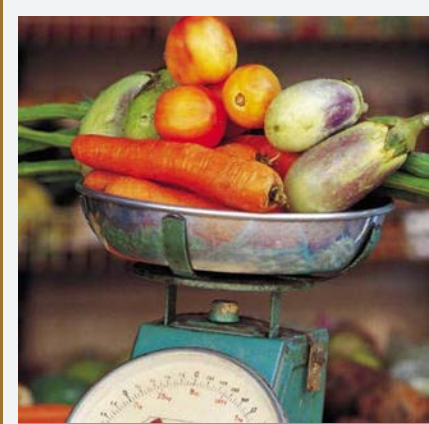
- **February 17** - Season Extension Opportunities, EQIP Funding
- **February 24** - Structure Options, Construction, Ventilation & Temperature Control
- **March 3** - Organic Certification & Marketing High Tunnel Crops
- **March 10** - Crop, Irrigation and Equipment Options
- **March 17** - Insect, Weed, and Disease Control
- **March 24** - Producer Views & Series Wrap-up



It is the policy of the Purdue University Cooperative Extension Service that all persons have equal opportunity and access to its educational programs, services, activities, and facilities without regard to race, religion, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability or status as a veteran. Purdue is an Affirmative Action Institution. This material may be available in alternative formats. 1-888-EXT-INFO <<http://the-education-store.com>> Disclaimer: Reference to products in this publication is not intended to be an endorsement to the exclusion of others which may have similar uses. Any person using products listed in this publication assumes full responsibility for their use in accordance with current directions of the manufacturer.

Starlight Vegetable Growers Meeting

Private Applicator Credits earned with Dinner!



Thursday
March 5, 2015

6:00 PM to 8:30 PM

Joe Huber's Family Farm
& Restaurant
Barnyard Bash II

Events

5:30 PM - 6:00 PM
Registration and Dinner

6:00 PM - 7:00 PM
"Managing Insects with Fewer Pesticides"
Rick Foster, Purdue Entomologist

7:00 PM - 8:00 PM
"How Fungicides Work: From Conventional to Organic"
Dan Egel, Purdue Plant Pathologist

8:00 PM - 8:30 PM
"Private Applicator Record Keeping"
Gina Anderson, Purdue Extension Agriculture Educator

Events are open to anyone interested in growing vegetables.

\$10 per person - Includes a Light Meal
PARP credit is an additional \$10

Register with the Floyd County Extension Office,
(812) 948-5470.

It is the policy of the Purdue University Cooperative Extension Service that all persons have equal opportunity and access to its educational programs, services, activities, and facilities without regard to race, religion, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability or status as a veteran.

Purdue University is an Affirmative Action institution. This material may be available in alternative formats.

2015 Vegetable Crops Hotline Subscription Form

The *Vegetable Crops Hotline* newsletter provides the commercial vegetable grower with timely information about disease, insect and weed pests, fertility practices, post-harvest problems, pesticide label changes, meetings and much more. Each year, the Hotline is published 12 times during the growing season (April - September) with off-season issues in February, March and November.

Again this year, in addition to receiving the regularly scheduled *Hotline* issues, subscribers may also receive the *Vegetable Crops Hotline - Bulletin* either by email or FAX. This will require that subscribers to the 2015 *Hotline* indicate how they want to receive the bulletins. The *Bulletin* articles will also appear in the next regularly scheduled *Hotline* issue along with other pertinent articles written by the Purdue staff.

To subscribe, please fill in your name and address below, and send this form and a check for \$15.00 made payable to Purdue University to:

Vegetable Crops Hotline Subscription
Southwest Purdue Agricultural Program
4369 N. Purdue Rd.
Vincennes, IN 47591

Indiana Vegetable Growers Association members are automatically signed up for the *Vegetable Crops Hotline* at no additional charge.

_____ Yes, I would like to subscribe to the 2015 *Vegetable Crops Hotline*. Enclosed is a \$15 check made payable to **Purdue University**.

Mail to: Vegetable Crops Hotline Subscription, SWPAP,
4369 North Purdue Road Vincennes, IN 47591

*******(Please complete the following)*******

Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Phone: _____ (home) and/or _____ (work)

If you would like to receive email notification when *Vegetable Crops Hotline Issues and Bulletins* are published, please give us your email address or visit lists.purdue.edu/mailman/listinfo/vch to sign up:
email address: _____

If you want the occasional *Hotline Bulletins* by fax, please include your FAX number (with area code): _____

Indiana Vegetable Growers Association

Membership Renewal/Application

Benefits of IVGA Membership:

- Midwest Vegetable Production Guide for Commercial Growers, (ID-56) (new edition usually available in Jan.)
- Vegetable Crops Hotline subscription
- Listing in IVGA Directory of Wholesale Vegetable Producers (optional)
- Your web site linked on www.ivga.org
- Corporate members: logo included on corporate members page at www.ivga.org
- Network with other vegetable growers
- Support education and research to improve vegetable production and marketing in Indiana

To renew or join, correct or fill out the form below and send in with your check payable to IVGA. Memberships run January - December. If you have already renewed for the current year, but haven't provided the information requested below, please check here , and complete and return this form so we have your current information.

<p>Your contact information below will be printed in the membership directory that is sent to members only. It will also be used to mail you the Vegetable Crops Hotline, to fax or e-mail the Hotline Bulletin, and for IVGA correspondence.</p> <p>Name: _____</p> <p>Company: _____</p> <p>Address: _____</p> <p>City, State, Zip: _____</p> <p>Tel: _____ Fax: _____</p> <p>Email: _____</p> <p>Web: _____</p> <hr/> <p>ID-56 Delivery: Where will you pick up your copy of the ID-56 or should we mail it to you?</p> <p><input type="checkbox"/> IHC (Indiana Hort Congress),</p> <p><input type="checkbox"/> IVGS (Illiana Veg Growers Symposium)</p> <p><input type="checkbox"/> SW Ind. Melon and Veg. Meeting</p> <p><input type="checkbox"/> Starlight Veg Meeting</p> <p><input type="checkbox"/> Please send by mail</p> <p><input type="checkbox"/> I do not want a copy of the ID-56</p> <hr/> <p>Would you like to receive free subscriptions to trade magazines that may be offered to IVGA members?</p> <p style="text-align: center;"><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <hr/> <p>Check here if you want to receive the Vegetable Crops Hotline by Email ONLY (no hard copy) <input type="checkbox"/></p> <hr/> <p>Membership Type:</p> <p><input type="checkbox"/> Regular, \$40.00/year</p> <p><input type="checkbox"/> Industry/Corporate, \$80.00/year</p> <p>Make check payable to: Indiana Vegetable Growers Association (IVGA). Return to: Indiana Vegetable Growers Association c/o Maynard PO Box 1321 Valparaiso, IN 46384-1321</p>	<p>The IVGA Directory of Wholesale Vegetable Producers will be updated periodically.</p> <p><input type="checkbox"/> Check here to be included in the directory.</p> <p><input type="checkbox"/> Check here if information has not changed since previous year. OR provide information below.</p> <p>Contact information for Wholesale Directory, if different from elsewhere on this form:</p> <p>Name: _____</p> <p>Company: _____</p> <p>Address: _____</p> <p>City, State, Zip: _____</p> <p>Tel: _____ Fax: _____</p> <p>Email: _____</p> <hr/> <p>The wholesale directory is available to anyone who requests it and will be posted on the web. Indicate quantity of each item: S=small quantities; X=wholesale quantities; T=semi truckload quantities.</p> <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> apples</td> <td><input type="checkbox"/> onions, bulb</td> </tr> <tr> <td><input type="checkbox"/> asparagus</td> <td><input type="checkbox"/> onions, green</td> </tr> <tr> <td><input type="checkbox"/> beet</td> <td><input type="checkbox"/> peaches</td> </tr> <tr> <td><input type="checkbox"/> black- or raspberries</td> <td><input type="checkbox"/> peppers, bell</td> </tr> <tr> <td><input type="checkbox"/> broccoli</td> <td><input type="checkbox"/> peppers, hot</td> </tr> <tr> <td><input type="checkbox"/> cabbage</td> <td><input type="checkbox"/> potatoes</td> </tr> <tr> <td><input type="checkbox"/> cantaloupe</td> <td><input type="checkbox"/> pumpkin</td> </tr> <tr> <td><input type="checkbox"/> carrot</td> <td><input type="checkbox"/> pumpkin, mini</td> </tr> <tr> <td><input type="checkbox"/> cauliflower</td> <td><input type="checkbox"/> radishes</td> </tr> <tr> <td><input type="checkbox"/> chrysanthemums</td> <td><input type="checkbox"/> snap_bean</td> </tr> <tr> <td><input type="checkbox"/> daylilies</td> <td><input type="checkbox"/> spinach or chard</td> </tr> <tr> <td><input type="checkbox"/> greens (collards, mustard, turnip)</td> <td><input type="checkbox"/> squash, summer</td> </tr> <tr> <td><input type="checkbox"/> corn, stalks</td> <td><input type="checkbox"/> squash, winter</td> </tr> <tr> <td><input type="checkbox"/> corn, ornamental</td> <td><input type="checkbox"/> strawberries</td> </tr> <tr> <td><input type="checkbox"/> cucumber</td> <td><input type="checkbox"/> sweet corn, bicolor</td> </tr> <tr> <td><input type="checkbox"/> eggplant</td> <td><input type="checkbox"/> sweet corn, white</td> </tr> <tr> <td><input type="checkbox"/> gourds, ornamental</td> <td><input type="checkbox"/> sweet corn, yellow</td> </tr> <tr> <td><input type="checkbox"/> herbs</td> <td><input type="checkbox"/> tomatillo</td> </tr> <tr> <td><input type="checkbox"/> kale</td> <td><input type="checkbox"/> tomato</td> </tr> <tr> <td><input type="checkbox"/> lettuce</td> <td><input type="checkbox"/> turnips</td> </tr> <tr> <td></td> <td><input type="checkbox"/> watermelon</td> </tr> </table>	<input type="checkbox"/> apples	<input type="checkbox"/> onions, bulb	<input type="checkbox"/> asparagus	<input type="checkbox"/> onions, green	<input type="checkbox"/> beet	<input type="checkbox"/> peaches	<input type="checkbox"/> black- or raspberries	<input type="checkbox"/> peppers, bell	<input type="checkbox"/> broccoli	<input type="checkbox"/> peppers, hot	<input type="checkbox"/> cabbage	<input type="checkbox"/> potatoes	<input type="checkbox"/> cantaloupe	<input type="checkbox"/> pumpkin	<input type="checkbox"/> carrot	<input type="checkbox"/> pumpkin, mini	<input type="checkbox"/> cauliflower	<input type="checkbox"/> radishes	<input type="checkbox"/> chrysanthemums	<input type="checkbox"/> snap_bean	<input type="checkbox"/> daylilies	<input type="checkbox"/> spinach or chard	<input type="checkbox"/> greens (collards, mustard, turnip)	<input type="checkbox"/> squash, summer	<input type="checkbox"/> corn, stalks	<input type="checkbox"/> squash, winter	<input type="checkbox"/> corn, ornamental	<input type="checkbox"/> strawberries	<input type="checkbox"/> cucumber	<input type="checkbox"/> sweet corn, bicolor	<input type="checkbox"/> eggplant	<input type="checkbox"/> sweet corn, white	<input type="checkbox"/> gourds, ornamental	<input type="checkbox"/> sweet corn, yellow	<input type="checkbox"/> herbs	<input type="checkbox"/> tomatillo	<input type="checkbox"/> kale	<input type="checkbox"/> tomato	<input type="checkbox"/> lettuce	<input type="checkbox"/> turnips		<input type="checkbox"/> watermelon
<input type="checkbox"/> apples	<input type="checkbox"/> onions, bulb																																										
<input type="checkbox"/> asparagus	<input type="checkbox"/> onions, green																																										
<input type="checkbox"/> beet	<input type="checkbox"/> peaches																																										
<input type="checkbox"/> black- or raspberries	<input type="checkbox"/> peppers, bell																																										
<input type="checkbox"/> broccoli	<input type="checkbox"/> peppers, hot																																										
<input type="checkbox"/> cabbage	<input type="checkbox"/> potatoes																																										
<input type="checkbox"/> cantaloupe	<input type="checkbox"/> pumpkin																																										
<input type="checkbox"/> carrot	<input type="checkbox"/> pumpkin, mini																																										
<input type="checkbox"/> cauliflower	<input type="checkbox"/> radishes																																										
<input type="checkbox"/> chrysanthemums	<input type="checkbox"/> snap_bean																																										
<input type="checkbox"/> daylilies	<input type="checkbox"/> spinach or chard																																										
<input type="checkbox"/> greens (collards, mustard, turnip)	<input type="checkbox"/> squash, summer																																										
<input type="checkbox"/> corn, stalks	<input type="checkbox"/> squash, winter																																										
<input type="checkbox"/> corn, ornamental	<input type="checkbox"/> strawberries																																										
<input type="checkbox"/> cucumber	<input type="checkbox"/> sweet corn, bicolor																																										
<input type="checkbox"/> eggplant	<input type="checkbox"/> sweet corn, white																																										
<input type="checkbox"/> gourds, ornamental	<input type="checkbox"/> sweet corn, yellow																																										
<input type="checkbox"/> herbs	<input type="checkbox"/> tomatillo																																										
<input type="checkbox"/> kale	<input type="checkbox"/> tomato																																										
<input type="checkbox"/> lettuce	<input type="checkbox"/> turnips																																										
	<input type="checkbox"/> watermelon																																										

Office Use Only: Check no. _____ Check Date _____ Date Rec'd. _____ Rec'd. by _____