

KVGA Newsletter

March 2024

Vol. 5 No. 1



As the spring season approaches, it's a time of anticipation and preparation for farmers across Kentucky as they gear up for the upcoming growing season. First and foremost, I extend my thanks to all who attended the Annual Fruit and Vegetable Conference in Bowling Green this past January. With nearly 600 participants, the event was a resounding success, featuring engaging sessions that delved into a wide array of topics vital to our industry. For those who couldn't attend or wish to revisit the valuable content, please visit the Kentucky Horticulture Council website for detailed information.

In this issue:

2025 KY Fruit & Vegetable Conference Save the Date & Call for Proposals
2024 Fruit & Vegetable Conference Overview
2024 Fruit & Vegetable Conference Sponsors
2024 Fruit & Vegetable Conference Health Screening Summary
Commercial Veg Grower High Tunnel Survey
Weed Management Reminders
UK Commercial Grower Study Opportunity
MyIPM for Vegetables Tool
UK Vegetable Crops Extension Update
UK Veg Crops Extension Social Media Links
Resources for Commercial Vegetable Growers
Irrigation in Hydroponic Systems Overview
Take the NAP 2023 Pricing Survey—Last Call
Chilling Injury of Cole Crops
RFSI Deadline Reminder
Horticulture Career Day
Virtual Direct Marketing Summit
Grower-Buyer Meet Up
New Tech Tuesday Series
Review of KVGA Member Benefits
KSU Regional Water Testing Labs
Grant Support for Specialty Crop Growers
Upcoming Events

Looking ahead, mark your calendars for the 2025 Annual Fruit and Vegetable Conference, slated to return to Lexington from January 5 to 7 at the Griffin Gate Marriott on Newtown Pike. This event promises to be a cornerstone of knowledge sharing, networking, and growth for our community.

In this edition of our newsletter, we delve into essential insights, best practices, and innovative solutions to help you navigate the complexities of the upcoming growing season. Additionally, stay tuned for updates on upcoming workshops, seminars, and resources aimed at enhancing your skills and bolstering your success as a vegetable grower in Kentucky as well as opportunities to participate and help guide applied research opportunities to best benefit the growers.

Thank you for your unwavering dedication to the agricultural community, and here's to a fruitful and prosperous growing season ahead!

Shubin Saha, DPM, PhD
President,
Kentucky Vegetable Growers Association

KVGA Officers

President

Dr. Shubin Saha

Kentucky Fresh Harvest (Stanford)

S.Saha@kyfreshharvest.com

Vice President

Nathan Howell

Need More Acres Farm (Scottsville)

needmoreacresfarm@gmail.com

Secretary

Rhonda Cornett

Cornett's Farm Fresh (London)

rcornett64@gmail.com

Treasurer

Ben Wilson

Dragonfly Hollow Farm (Richmond)

benjaminpwilson@gmail.com

KVGA Board Members

Andre' Barbour, Barbour's Farm (Canmer)

Jonathan Berkshire, Berkshire Farms (Glencoe)

Travis Cleaver, Cleav's Family Farm (Hodgenville)

Ron McMaine, McMaine's Riverhaven Farm (Salvisa)

David Neville, Capstone Produce Auction (Campbellsburg)

Brad Reid, Reid's Orchard (Owensboro)

Catherine Shake (Louisville)

Megan Sharpe, Homegrown Direct (Georgetown)

Kiristen Webb, Appalachian KY

Joel Wilson, Wilson's Cedar Point Farm (Nancy)

KVGA Advisors

Sandi Deutsch, Deutsch Farm (Taylorsville)

Dr. Cindy Finneseth, Kentucky Horticulture Council (Lexington)

Dr. Annette Meyer-Heisdorffer, Daviess Co Extension (Owensboro)

Dr. Rachel Rudolph, UK Department of Horticulture (Lexington)

Dr. John Strang, Ret. UK Department of Horticulture (Lexington)

Dr. Shawn Wright, UK Department of Horticulture (Jackson)

2025 Kentucky Fruit & Vegetable Conference

Save the Date

Mark your calendars! The 2025 Kentucky Fruit & Vegetable Conference will be January 5-7 in Lexington, KY. The Conference will be Monday (1/6) and Tuesday (1/7), with set-up and pre-conference events on Sunday (1/5).



2025 Kentucky Fruit & Vegetable Conference Call for Proposals



The 2024 KY Fruit & Vegetable Conference Planning Committee is accepting proposals for educational presentations at the annual conference.

Are you doing something particularly well or novel? Other growers would appreciate you sharing your expertise!

Session topics should be highly focused for produce growers in Kentucky. Topics can address production methods, business management strategies, and best practices.

The deadline to submit proposals is July 1, 2024. Presentation date and time will be confirmed with speakers by September 1, 2024. The full agenda with registration details will be published in mid-October.

We encourage you to consider submitting a proposal to share your knowledge, passion, and innovation with others or suggest speakers you'd like to hear!

Submit proposals at <https://www.surveymonkey.com/r/25FVCallforProposals>.



2024 Kentucky Fruit & Vegetable Conference

What a great annual conference! Nearly 600 attendees participated in the Conference over the two and a half days in Bowling Green. More than 100 speakers and panelists provided valuable production and marketing information over a large variety of topics in 16 different educational tracks, including: General Session; Direct Marketing; Tree Fruit Production; Vegetable Production for Experienced Growers; Beginning Farmer Basics; Greenhouse Production; Organic Production; Tree Fruit Production for Experienced Growers; Beginning Vegetable Production; Cut Flower Short Course; High Tunnel Production; Marketing & Business Management; Small Fruit Production; Urban and Small-Scale Farming; Funding Opportunities; and Specialty Crop Block Grant Project Reports.



Plus, the three pre-conference sessions — the Farmers Market Short Course, a Farm Food Safety Plan Workshop, and the Bringing the Farm to School Grower Training — as well as the AgVets and Urban & Small Farms Meet & Greets were a huge success. KVGA paid members received an email with links to the presentations and Conference resources hosted on the KVGA website. Generous donations from the 70+ vendors and sponsors covered meeting expenses, including the cost of the two lunches for all participants.

Based on attendee feedback, the 2025 Fruit & Vegetable Conference will be moving to Lexington and is scheduled for January 5-7, 2025. Suggestions for improvement, ideas for speaker topics, vendors who should be recruited to attend or other comments about the conference, are being solicited and 2025 Conference planning will begin in July 2024.



2024 Kentucky Fruit & Vegetable Conference Sponsors

Premium Lunch Sponsor



Lunch Sponsor



Platinum Level Sponsors



Conference Partner



Gold Level Sponsor



Silver Level Sponsors



Bronze Level Sponsors



Supporter Level Sponsors



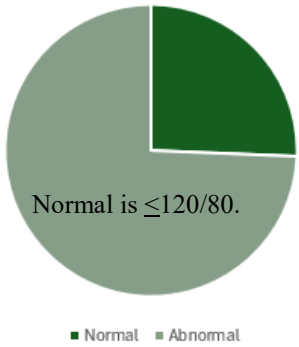
Health Screening Observations from the 2024 KY Fruit & Vegetable Conference

As part of the 2024 Fruit & Vegetable Conference, Raising Hope offered complimentary health screening for attendees. Thank you to all the growers and other attendees who participated. A snapshot of health metrics and demographics from the screening participants is below:



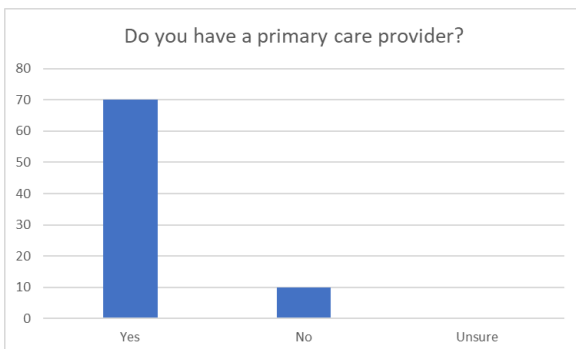
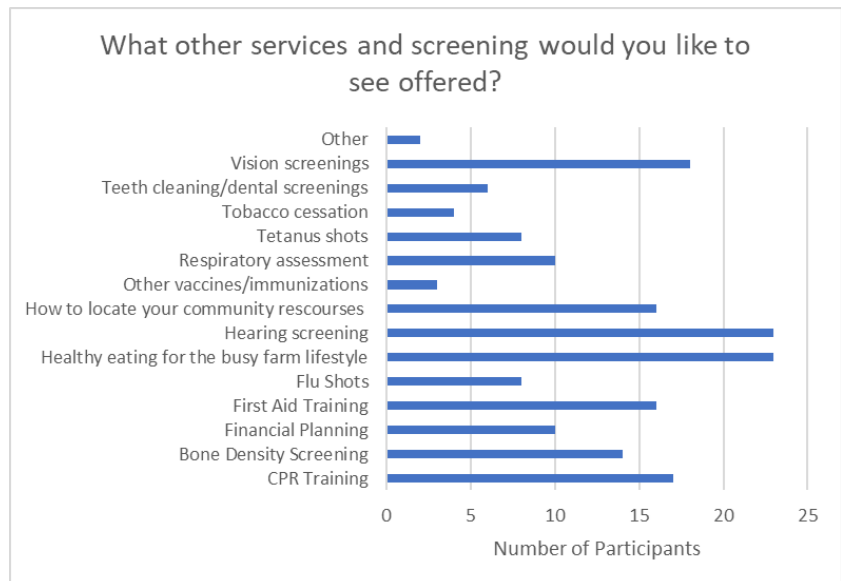
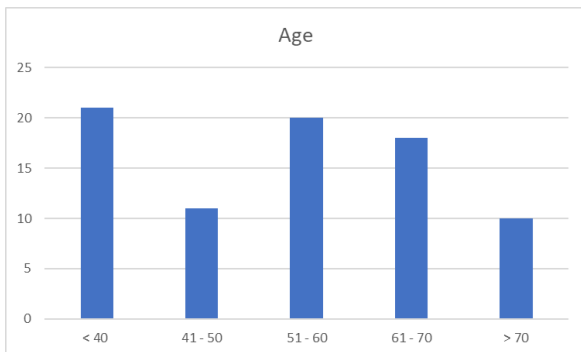
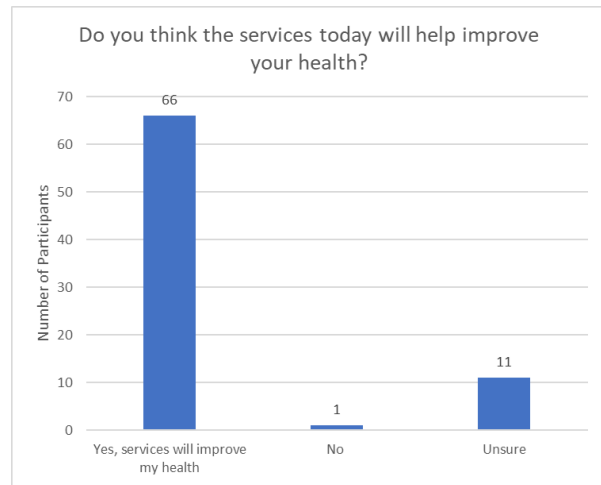
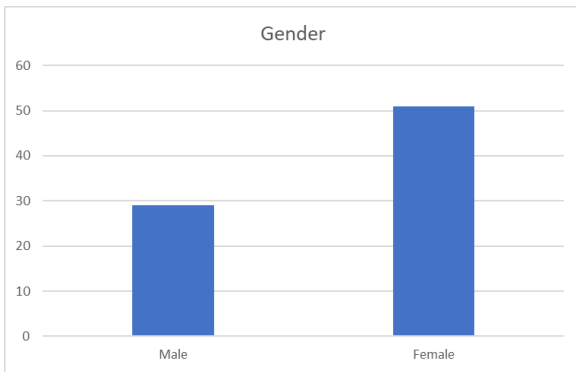
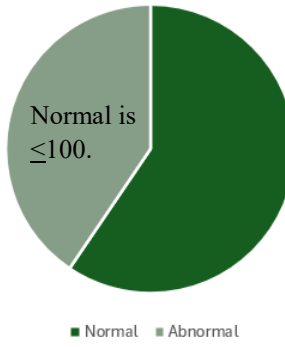
The mission of Raising Hope is to promote the physical/mental health and safety of Kentucky's farmers and farm families with the common goal to enhance quality of life of KY farmers and farm families. For more information, visit their website: www.raisinghopeky.com

Blood Pressure Screening



If your results fall outside the normal ranges, make an appointment with your medical provider!

Glucose Screening



Commercial Grower High Tunnel Survey

If you are a vegetable grower who is using high tunnels in your operation, we invite you to participate in this study.

You must be age 18 or older to participate in this research study. Your unique perspective and opinions are valuable to this study. Your participation entails completing a survey that aims to help researchers at the University of Tennessee Department of Agricultural & Resource Economics and the University of Kentucky Department of Horticulture to assess production and management practices used in high tunnel vegetable production, challenges faced when growing vegetables in high tunnels, and better understand the use and willingness to use soil solarization as an alternative to manage soilborne pests, pathogens, and weeds in high tunnels.



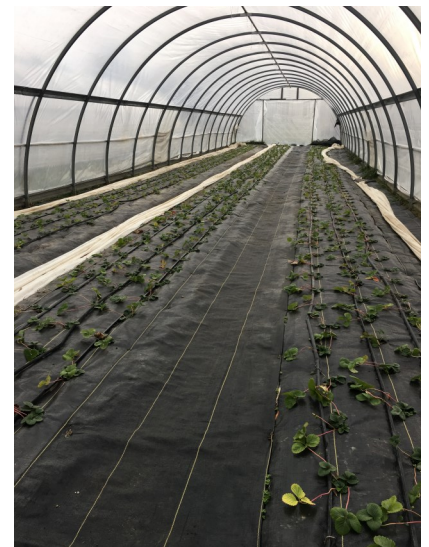
The University of Tennessee and the University of Kentucky are receiving funding from Southern Sustainable Agriculture Research and Education (SARE) to conduct this study. The survey includes questions about your use of high tunnels, management and production practices, your farm, and you, and should take **15 to 25 minutes to complete, depending on the crops you are growing on your farm.**

You have the opportunity to enter into a random drawing for a \$250 gift card.

If you have questions about the study or the procedures, you may contact the researcher, Margarita Velandia, at mvelandi@utk.edu or at (865) 974-7409. If you have questions about your rights as a participant, you may contact the University of Tennessee IRB Compliance Officer at utkirb@utk.edu or (865) 974-7697.

Thank you for assisting the University of Tennessee and the University of Kentucky with this survey.

Scan the QR code or use the following link tiny.utk.edu/TSCO7 to complete the survey.



Weed Management Reminders for Vegetable Growers

Weeds pose significant challenges to commercial vegetable production, competing with crops for space, nutrients, water, and light. Weeds may also harbor diseases and insects and provide cover for other pests that effect vegetables. Effective weed management strategies are critical for sustainable vegetable production.

Successful integrated weed management strategies include prevention, detection and suppression. Reliance on suppression alone will not be sustainable in the long-term and is the most costly of the components.

Prevention strategies include keeping clean fence rows and fields so that weed seeds are not blown into the production area, only using well aged compost and mulches that are free of weed seeds, and not bringing weed seeds into cleaner areas on equipment. Once the weeds have arrived it becomes a long-term management problem because weed seeds can remain dormant in the soil for many years.

Detection is an obvious but important activity.

Do you know what weeds are present on your farm?

Do you know how to identify them?

Do you understand how and when they reproduce?

These factors all influence the success of any other management strategies. If you can't identify them there are apps available for you smartphone that may be useful. Michigan State University compared weed ID apps and found that success ranged from 11-67%. More information can be found here <https://www.canr.msu.edu/news/plant-identification-theres-an-app-for-that-actually-several>.

The strategy that first comes to mind when thinking about weed management is suppression, whether through cultural, mechanical, or chemical control.

Cultural practices including crop rotation, cover cropping, and proper spacing between rows can suppress weed growth by disrupting their life cycles and reducing available resources. Mulching with organic materials such as straw, not hay, or plastic can also inhibit weed emergence while conserving soil moisture and regulating soil temperature.

Mechanical methods like hand weeding, hoeing, and cultivation are essential for weed suppression. Hand weeding is labor-intensive but effective for removing weeds in small-scale operations or within crop rows. Mechanical cultivation using tractor-mounted implements or hand tools helps to uproot weeds, break up soil crust, and aerate the soil. However, care must be taken to avoid damaging crop roots. Newer strategies including lasers are being researched and will become common in the future as technology improves and costs decrease.

Chemical control through the use of herbicides is important.

- Pre-emergent herbicides are applied before weeds emerge from the soil. Pre-emergents do not kill the seed like fumigants may, but when the weed emerges through the herbicide layer, the chemicals are absorbed and the seedling dies before emerging.
- Post-emergent herbicides target weeds that have emerged from the soil.

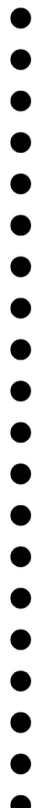
It is important to remember that weeds need to be actively growing for the herbicide to have an effect within the plant. Careful selection of herbicides based on the crop, weed species, size, days-to-harvest, timing and available equipment is crucial to minimize environmental impact, maximize efficacy, and be legal and sustainable.

There are other weed management strategies that can also be used to suppress weeds including using beneficial insects, allelopathic crops, or even animals but these are generally not used extensively in fruit or vegetable production.

Shawn Wright, University of Kentucky Extension Specialist



Weed suppression using black (top) and white (bottom) plastic mulches.



Are you growing commercial horticulture crops in Kentucky?
We want you to participate in our study!

Participants receive:

- ✓ A personalized, in-depth analysis of your entire business operation including a customized plan for improving profitability!
- ✓ Priority to participate in follow-up studies, which are projected to include system technology-in-kind upgrades!

For more information, visit greenhousehort.ca.uky.edu
Sign up using the QR code above, or email arundathi.sharma@uky.edu

MyIPM for Vegetables: A Grower Resource

The MyIPM for Vegetables app is now available and includes diagnostic images and key information on pests and diseases of commercial tomatoes and cucurbits. Management recommendations include chemical, biological, and cultural practices. The app was developed by specialists at universities that participate in the Southeastern Vegetable Extension Workers Group, of which the University of Kentucky is a participating member.



Search “myipm for vegetables” in the Apple Store or Google Play. The app is free to download. Instructions on using the MyIPM for Vegetable app can be found [here](#). After using the app, developers are seeking feedback to improve the platform through a survey, which can be accessed [here](#) or through the QR code below.



Nicole Gauthier, Extension Plant Pathologist
Kim Leonberger, Plant Pathology Extension Associate

QR code to provide feedback.

UPDATE FROM UK VEGETABLE EXTENSION

University of Kentucky Extension specialists have revised and created some new resources for growers.

The latest version of the UK Extension publication, *Vegetable Production for Commercial Growers* (ID-36) is now available for 2024-2025. This comprehensive publication contains a wealth of information on all aspects of commercial vegetable production and pest management, from cultivar selection to marketing, and everything in between. *Vegetable Production Guide for Commercial Growers, 2024-2025* (ID-36) is available online at <https://www2.ca.uky.edu/agcomm/pubs/id/id36/id36.pdf>. Print copies will be available at county Extension offices in March.

Two new spray schedule publications have been developed for commercial tomato and pepper growers.

Commercial Spray Schedule for Field Production of Solanaceous Crops (PPFS-VG-30) - <https://plantpathology.ca.uky.edu/files/ppfs-vg-30.pdf>

Commercial Spray Schedule for High Tunnel Production of Tomatoes (PPFS-VG-31) - <https://plantpathology.ca.uky.edu/files/ppfs-vg-31.pdf>

A summary of results from a research project exploring the impact of soil moisture, planting date, and lettuce cultivar on lettuce drop disease is now available.

Potential for Cultural Management of Lettuce Drop (*Sclerotinia sclerotiorum*) in High Tunnels through Modification of Soil Moisture, Planting Date, and Cultivar (PPRR-06) - <https://plantpathology.ca.uky.edu/files/pprr-06.pdf>

The following publication has been revised and is available online.

Blackleg and Soft Rot of Potato (PPFS-VG-18) - <https://plantpathology.ca.uky.edu/files/ppfs-vg-18.pdf>

Nicole Gauthier, Extension Plant Pathologist

Kim Leonberger, Plant Pathology Extension Associate

Cheryl Kaiser, Plant Pathology Extension Support Staff

UK Veg Crops Social Media

Facebook

KY Fruit & Veg Extension - <https://www.facebook.com/KYFruitVegExtension/>

Diseases of Vegetables, Fruit, & Hemp - <https://www.facebook.com/KYPlantDisease/>

UK REC Hort - <https://www.facebook.com/people/Ukrec-Hort-Group/100057676561088/>

Ag Weather - <https://www.facebook.com/ukagweather>

UK Robinson Center - <https://www.facebook.com/ukrobinsoncenter/>

University of Kentucky Ag Programs - <https://www.facebook.com/UKANR/>

Center for Crop Diversification - <https://www.facebook.com/CenterforCropDiversification>

Instagram

KY Fruit & Veg Extension - @KY_Fruit_Veg_Extension

University of Kentucky Vegetable Crops Extension & Research - @uky_veg_crops

Twitter

KY Fruit & Veg Extension - @KYFruit_VegExtn https://twitter.com/KYFruit_VegExtn

KY Plant Disease - @KYPlantDisease <https://twitter.com/kyplantdisease?lang=en>

UKY Entomology Extension Specialist, Dr. Jonathan Larson - @bugmanjon <https://twitter.com/bugmanjon>

UK Extension - @UKExtension <https://twitter.com/ukextension?lang=en>

UK Ag Weather Center - @UKAGWeather <https://twitter.com/ukagweather?lang=en>

Southern IPM Center - @southernipm <https://twitter.com/southernipm?lang=en>

YouTube

Kentucky Vegetable Crops Extension & Research – <https://www.youtube.com/channel/UC6JyU2Fdo3Yvml4y7LF0M4A>

Kentucky Fruit and Vegetable Extension – Nicole Gauthier, Plant Disease - <https://www.youtube.com/c/NicoleGauthier>

UK Extension Resources for Commercial Vegetable Production

The University of Kentucky Vegetable Extension team provides numerous resources for commercial vegetable growers regarding production and pest management. The following list details the resources provided by University of Kentucky specialists in horticulture, entomology, and plant pathology.

College of Agriculture Publications

Ag Communications - <http://www2.ca.uky.edu/agcomm/pubs.asp>

Departmental Websites (*publications, fact sheets, videos*)

Ag Economics - <http://agecon.ca.uky.edu/extension>

Biosystems Engineering (Ag Weather) - <http://weather.uky.edu/>

Center for Crop Diversification - <https://www.uky.edu/ccd/>

Entomology - <https://entomology.ca.uky.edu/entfacts/>

Horticulture - <https://www.uky.edu/hort/documents-list-commercial-fruit-nut>

Forestry - <http://forestry.ca.uky.edu/wildlife>

Plant Pathology - <http://plantpathology.ca.uky.edu/extension/publications>

Plant and Soil Sciences - <https://pss.ca.uky.edu/extension15>

Newsletters

KY Pest News - <https://kentuckypestnews.wordpress.com/>

Email Alert Listserv, Vegetables

Subscribe at https://uky.az1.qualtrics.com/jfe/form/SV_cCtU7usSqWbyZq6

Vegetable-Specific Websites

Mobile version of Vegetable Scouting Guides – <https://veggiescout.ca.uky.edu/>

Vegetable Crops Extension & Research Website - <https://veg crops.ca.uky.edu/>

Plant Pathology Vegetable Extension Publications – <https://plantpathology.ca.uky.edu/extension/publications#VegetableCrops>

Lab Services

Plant Disease Diagnostic Laboratory (free) submit samples through county Extension offices

Soil Testing (fees vary) submit through county extension offices - <https://www.rs.uky.edu/soil/redirect.php>

Food Systems - <https://fsic.ca.uky.edu/>


County Agents

UK Extension Service - <http://extension.ca.uky.edu/county>

Irrigation in Hydroponic Systems: An Illustrated Overview

UK has a new publication related to hydroponic systems. Check it out online:

<https://www.uky.edu/ccd/sites/www.uky.edu/ccd/files/CCD-SP-20%20Irrigation%20in%20Hydroponic%20Systems.pdf>

 **Martin-Gatton**
College of Agriculture,
Food and Environment
University of Kentucky

Center for Crop Diversification System Profile
CCD-SP-20

Irrigation in Hydroponic Systems: An Illustrated Overview

Arundathi Sharma* and Joshua Knight†


Introduction
Hydroponics is defined by soilless cultivation of plants. In plant production systems, soil provides two critical functions: it provides physical support for plant roots and it is a source of fertility accessible to the roots. In hydroponic systems, a soilless medium or substrate provides root support, while most nutrients are supplied through the water directly as it passes through and is absorbed into the medium. Additionally, the substrate can provide some plant nutrients directly or indirectly by providing a habitat for microbial activity.

One of the most noticeable differences an experienced field grower will find when experimenting with soilless cultivation will be in the crop's day-to-day water/irrigation and nutrient management. Closed-system hydroponics systems store and reuse nutrient solution. These systems offer growers control to avoid abiotic crop disease associated with nutrient deficiency or excess (toxicity). Closed systems also prevent opportunities for recycling irrigation water, which can reduce costs associated with fertilizer losses due to leaching, reduce water losses to evaporation and runoff, and reduce environmental pollution by reducing discharges of excess fertilizer into waterways.

This article will present three common closed-system hydroponics: "irrigation" methods for growing leafy greens: deep water culture (DWC), nutrient film technique (NFT), and ebb-and-flow (also known as flood-and-drain). These methods can also be used for a variety of crops, and it is possible to build any of these systems using common equipment from hardware stores. One can also purchase whole systems or

custom solutions that use these methods if ready to scale up the operation. Commercial growers may be able to get financial assistance for purchasing more specialized and critical components and management equipment, such as pH and EC meters. Treat the included diagrams as conceptual guides, rather than construction schematics.

Irrigation and Nutrient Management
Before choosing what type of hydroponics set-up to start with, a grower should have a management plan for conditioning irrigation water, as this is necessary in all soilless growing systems. Within closed system hydroponics, conditioning irrigation water is a continuous process of preparing, monitoring and managing a desirable nutrient solution made from a combination of water soluble fertilizer and irrigation water. The fertilizer solution will be the crop's primary source of nutrients, making this aspect of system management critical for production. **Reusing nutrient solution requires careful and constant monitoring of fertility (as measured by pH and EC), as well as periodic "refreshing" to avoid excess salinity in the nutrient solution.** In this context, refreshing means to discharge the existing solution and begin with new irrigation water and a new batch of fertilizer. The resources section at the end of this publication provides links to helpful information getting started with active nutrient control for hydroponics. Once you have a system for preparing and monitoring the nutrient solution, you're ready to start feeding your crops using one of the following methods:

 **CENTER FOR CROP DIVERSIFICATION**

*Arundathi Sharma is an Extension Associate for Controlled-Environment Horticulture. †Joshua Knight is a Senior Extension Associate with the Center for Crop Diversification. Cooperative Extension Service | Agriculture and Natural Resources | Family and Consumer Sciences | 4-H Youth Development | Community and Economic Development



TAKE THESE NAP* PRICING SURVEYS

***NONINSURED CROP DISASTER ASSISTANCE PROGRAM**

**Help KY fruit & vegetable growers
set a local pricing basis for crop
insurance claims!**

Without KY specific data, growers will have
to use national data that may be
significantly lower than local prices.

No NAP coverage required to take the survey!



NAP FRUIT
SURVEY



NAP VEGETABLE
SURVEY



**SCAN THE CODES TO TAKE
THE QUICK SURVEYS**

Direct links to surveys:

Vegetable Survey: <https://www.surveymonkey.com/r/NAPVEG2023>

Fruit Survey: <https://www.surveymonkey.com/r/NAPFruit2023>

Chilling Injury of Cole Crops

Walking the rows of our high tunnel Brussels sprouts trial, I noticed an abiotic disorder that winter vegetable producers have probably seen before. The symptom is a reddish-purple coloration on the undersides of leaves and at the leaf margins in the upper part of plant canopies (Fig. 1). This discoloration is due to chilling injury and is one that I have seen many times over the years, primarily on fall cole crops.

Discoloration caused by chilling injury is a result of leaves producing additional anthocyanins in response to environmental stress. Anthocyanins are pigments which contribute to the red coloration of many fruits and vegetables, flowers, and autumn leaves. Low temperatures assist in the production and retention of anthocyanins as does high light intensity. Ongoing accumulation may play a protective role in improving adaptability and reducing the rate of cell death in response to low winter temperatures.

Cole crops are well-known for their hardiness as cool season vegetables. Nearly all can tolerate temperatures below freezing, down to 26°F with little to no damage when properly acclimated (Table 1). Hardiness can differ by cultivar, with some being less cold tolerant than others. Seedlings and recent transplants are more sensitive than established plants, and plants that are stressed are likely to be injured earlier than others that are in good condition. Cauliflower and broccoli heads also tend to be more sensitive to cold temperatures and will show symptoms earlier than other parts of the plant (Fig. 2).



Fig. 1. Mild purpling on undersides of Brussels sprouts leaves due to chilling injury.



Fig. 2. Purple discoloration of a broccoli head in response to chilling injury.

Broccoli*	22-23°F
Brussels sprouts	20°F
Cabbage	17-18°F
Kale, collards, mustard greens, turnips	17-18°F
Cauliflower	22-24°F
*Certain cultivars may be damaged at 25°F.	

Weather conditions prior to a cold event will affect tolerance. Warm temperatures cause deacclimation, or a loss of hardiness, which may lead to an increase in injury. The degree of cold, its duration, and frequency also influences plant response. Minor leaf discoloration may occur at the upper end of the cold tolerance range for each crop, but plants will readily recover over one to two weeks. As the temperature drops, the degree of injury will increase, and plants may remain permanently discolored if cold conditions persist. Severe injury will cause leaves to turn tan, wilt, or possibly lead to plant death (Fig. 3). Extended cold, over a period of several days, will cause more injury than a single night of cold temperatures. The development of injury becomes progressively more likely over successive cold events, even if the first one did not produce any symptoms.

There are several options available to growers to help prevent chilling injury. Avoidance is often the best method. Following



Fig. 3. Field of cauliflower killed by overnight lows in the teens.

Continued on the following page.

Chilling Injury of Cole Crops, continued

the appropriate planting schedule and avoiding planting too late will help ensure that harvest occurs before cold injury becomes a risk. Appendix K in the Vegetable Production Guide for Commercial Growers has a table that lists the earliest and latest planting dates for vegetable crops in Kentucky. Cultivars with longer days to maturity require earlier fall planting than those with shorter maturities.

Row covers will provide protection and are most effective on nights with little wind movement. A clean and dry 1.0 oz./sq. yd. row cover can dependably provide between 4-6°F of protection. Double covering can deliver additional protection, though, the result is not always cumulative.

High tunnels are poorly insulative but do provide protection from wind and can slow radiative heat loss from the soil. A combination of high tunnel and double covering protected Brussels sprouts plants between January 14 and 21 when a minimum temperature of 0.7°F was recorded by a local Kentucky Mesonet weather station (Fig. 4). Inside the tunnel the lowest temperature reached 10°F while under a double cover the minimum was 24°F according to max/min thermometers.

Active methods of heating using furnaces can also provide protection but are probably not cost effective.

Chilling injury can be mistaken for phosphorus deficiency as the symptoms and conditions for development are somewhat similar. Like chilling injury, phosphorus deficiency is characterized by reddish-purple leaf undersides, particularly around the margins or near the veins. Development is favored by cold soils, and associated air temperatures, that restrict root growth. However, this is where the similarities end. Phosphorus deficiency symptoms will occur first on older leaves, and rarely on new leaves as it is mobile within the plant. While chilling injury can affect older leaves, I often find that it shows up first on the younger leaves near the crown. Phosphorus deficiency is common on early spring seedlings and transplants of warm season crops like sweet corn and tomatoes as their roots have difficulty absorbing nutrients in cold soils. Deficiency symptoms nearly always disappear as the soil warms, and plants mature and establish their root systems. Unless the soil is severely deficient, cole crops rarely experience phosphorus deficiency as they are naturally adapted to cool growing conditions. While it is possible for phosphorus deficiency and chilling injury to occur on the same plant, it is rare. Each is more commonly seen in different seasons, spring in the case of the former and fall and winter in the case of the latter.

Daniel Becker, University of Kentucky Extension Associate for Vegetable and Small Fruit Crops



Fig. 4. Double covering and high tunnel protection of Brussels sprouts plants.

Regional Food Systems Infrastructure (RFSI) Reminder — April 5 Deadline

Friday, April 5 is the deadline to apply for the Kentucky RFSI grants through KDA!

To help you determine if you are eligible, what expenses are allowed and if the equipment only or infrastructure programs is right for your operation, KCARD and KDA have developed a [list of FAQs](#).

**Resilient Food Systems
Infrastructure (RFSI) Program**

FREQUENTLY ASKED QUESTIONS



University of Kentucky
College of Agriculture,
Food and Environment
Cooperative Extension Service



HORTICULTURE CAREER DAY

April 16, 2024

Madison County Extension Office
230 Duncannon Lane
Richmond, KY 40475

ABOUT HORTICULTURE CAREER DAY

The University of Kentucky and Farming Now! will be co-hosting a Controlled Environment Agriculture (CEA) Horticulture Career Day for high school SOPHOMORES, JUNIORS, and SENIORS on Tuesday, April 16, 2024.

We would like to cordially invite your organization to participate at this event. Please plan to include internship and career opportunity information, a **hands-on educational component**, and information.

4 THINGS TO PREPARE FOR THE EVENT

✓ AM Session from 9am - 11am
✓ PM Session from 12:30pm - 2:30pm

✓ Approximately 200 students expected from Madison, Rockcastle, Fayette, and other surrounding counties expected.

✓ Space is limited please RVSP before March 8, 2024

✓ Organizer Contact Information:
Casey.Byrd@uky.edu
Arundathi.Sharma@uky.edu
Daniel.Armstrong@farmingnowfoundation.org

Space is still available!
Contact the organizers
now if you are interested!

REGISTRATION LINK: HORTICULTURE CAREER DAY



2024 KY Agriculture Direct Marketing Summit

The 4th annual KY Ag Direct Marketing Summit will be April 8-10, starting at 6 pm (Eastern) each evening.

This year the content focuses on all things CSA. If you are offering a CSA or thinking about it or just want to pick up some marketing tips, plan to participate!

The event is free for KY growers! Register now using [THIS LINK](#).

Grower-Buyer MeetUp

Are you interested in value-added products for additional farm income? Would you like to learn about working with a commercial food manufacturer? Join us for a training on resources available for Kentucky producers interested in value-added products.

Covenant Group, a local food manufacturer in Owen County, will be a featured business detailing how their operation helps producers scale their businesses and optimize operations.

APRIL 23, 2024

1 PM - 3 PM (EST)

Owen County Extension Office
265 Ellis Rd, Owenton, KY 40359

Register by phone or email:

502-484-5703

owen.ext@uky.edu



New Tech Tuesdays Series

Put those pests to the test for the very first Kentucky Tech Tuesday event! Join in on Tuesday, March 26th from 12pm to 1pm ET.

"Improving Your Integrated Pest Management Program" will feature technical consultant Jarene Brown of Koppert Biological Systems. Listen to this free webinar to find out how precision pest monitoring and real-time pest detection alerts can take your vegetable crop production to the next level!

All are invited! This webinar is free and will be held via Zoom. Registration required. Sign up today with the QR code or at bit.ly/khctechtuesday



Improving Your Integrated Pest Management Program

with

Jarene Brown
of Koppert Biological Systems

Tuesday, March 26th
12 PM EST / 11 AM CT



Register at
bit.ly/khctechtuesday



Review of KVGA Member Benefits

Many KVGA members join during the annual KY Fruit & Vegetable Conference and don't realize the other benefits associated with membership in our organization. We've highlighted several below and encourage you to find out more if you aren't taking advantage of them all.

- ☐ An **extensive network** of Kentucky growers with experience and enthusiasm for growing produce.
- ☐ Access to 20 different Anthem health care plans through the **KY Ag Health Care Trust**.
- ☐ **\$2,000 Accidental Death & Dismemberment** no-cost policy with American Income Life Insurance Company (AIL). Members receive a letter and response card in the mail.
- ☐ Free subscription to *American Vegetable Grower* magazine for one year
- ☐ Early notification of **KVGA-sponsored educational events like** grower-buyer meet-ups
- ☐ Authorization to use **24-c local needs pesticide registrations**
- ☐ Exclusive member content online <http://kyvga.org/>
- ☐ Free postings on the KHC **Trading Post** electronic bulletin board (<https://kyhortcouncil.org/trading-post/>)
- ☐ Free **quarterly newsletter**. Enjoy this issue — there is a lot of great content.

If you want to make suggestions about member benefits or have ideas for future newsletter content or events, please feel free to contact any KVGA officer or Board Member.

Additional Member Benefit at No Cost!

Through a partnership with American Income Life Insurance Company, an Accidental Death and Dismemberment benefit and other no-cost offers are being provided to all members of Kentucky Vegetable Growers Association.

Learn more at [MyBenefits.AILife.com](https://www.MyBenefits.AILife.com)

Enter access code: **SGNRM**

This is a solicitation for insurance. An AIL representative will contact members who return the reply card by mail or respond online to arrange a convenient time to deliver their certificate of coverage and other no cost offers and review other supplemental insurance benefits that may be available.



Amanda Cross, AIL Public Relations
859-229-5369 | ascross@AILife.com

KSU Regional Water Testing Labs

Kentucky State University (KSU) has opened regional water testing labs for growers interested in having their production and post-harvest ag water sources tested. This program is voluntary and can help growers comply with requirements under the Food Safety Modernization Act Produce Safety Rule (FSMA PSR).

Labs are operating in Bowling Green (Warren Co), Hodgenville (LaRue Co), Frankfort (Franklin Co), and Whitesburg (Letcher Co). Testing for *E. coli* in surface and ground water samples is free to Kentucky growers and results are available approximately 1 week after sample submission. The results can be used for your Farm Food Safety Plan, Ag Water Quality Plan, and other certification programs.

For more information about scheduling a time to drop off samples, contact: Kevin Gurtowski (kevin.gurtowski@kysu.edu) or John Thomas (john.thomas1@kysu.edu).

Grant Support for Produce Growers

Did you know the Agribusiness Grant Facilitation Program (AGFP) of the Kentucky Center for Ag and Rural Development (KCARD) helps Kentucky agribusinesses learn about and apply for funding?

With the support of business planning and technical assistance available through KCARD, the program is able to help hard-working applicants put together strong grant applications.

KCARD frequently assists growers with:

- identifying funding options;
- determining eligibility for grant programs;
- working through required registrations;
- understanding the grant requirements; and
- reviewing grant applications.

For more information, check out KCARD's AGFP website:

<https://www.kcard.info/find-funding>

Upcoming Industry Events

- March 11 — KVGA Board Meeting (Nelson Co)
- March 20 — Local Food Systems Summit (Lexington)
- March 24-28 — KY Farm Bureau Farm Market Tour (Texas)
- March 26 — Tech Tuesday (Virtual)
- April 5 — RFSI Application Deadline to KDA
- April 5 — Food Connection First Friday (Lexington)
- April 8 - 10 — Kentucky Direct Marketing Summit (Virtual)
- April 16 — Horticulture Career Day (Madison Co)
- April 20 — KNGA Spring Meeting (Frankfort)
- April 23 — Grower Buyer Meet Up (Owen Co)
- April 30 — KSHS Field Day at Eckert's Orchard (Woodford Co)

Do you have a question about production, marketing or another veggie-

related topic? Send in your question and you may see it answered in a future newsletter!



Info@KyVGA.org

Save the Date!

2025 Kentucky Fruit & Vegetable Conference

Jan. 5 — Pre-Conference Events

Jan. 6 & 7 — Educational Sessions & Trade Show

