

Midwest Winter Production Conference

**Monday & Tuesday, February 17 & 18, 2020
at The Timbers**

1 Coffey Park Lane, Eureka, Missouri 63025

Winter production! The demand for locally grown vegetables & fruit knows no season & innovative farmers are expanding into the winter months to increase profitability.

This conference features national & regional presenters with hands-on experience in winter production.

REGISTRATION IS LIMITED TO 100 PARTICIPANTS

Register by February 1 to assure meals and materials.
For more information & for a registration form go to:
www.webbcityfarmersmarket.com



Sponsors of the Conference:



The Missouri Department of Agriculture has funded a portion of this project through the Specialty Crop Block Grant Program.

The Webb City Farmers Market



Eat local – Eat fresh

UNIVERSITY OF MISSOURI
Extension



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The Timbers, 1 Coffey Park Lane, Eureka, MO 63025

Monday, February 17

8:45 am - Welcome

9:00 - **Concurrent Sessions**

Track 1

Session For Beginning Winter Producers - *High tunnel siting, choices of equipment, costs and returns, soil management, supplemental heat, cropping options*

Shon Bishop, Robert Balek, David Middleton

Track 2

Session For Advanced Winter Producers - *Tunnel maintenance/rehabbing equipment, long term soil management, supplemental heat*

Patrick Byers, Liz Graznak, Judson Reid

Break

11:30 - **Management of Key Pests of Vegetables and Fruit Crops** — *Successful IPM programs for key pests of vegetables and fruit crops and ways to adopt IPM in different cropping systems.*

Dr. Clement Akotsen-Mensah

12:30— Lunch—**Eat with an Expert**

1:30 - **High Tunnel Soil Nutrition Management Program** – *After several growing seasons, many high tunnel farmers find yields begin to decline caused by imbalances in soil nutrients such as phosphorus, potassium, calcium as well as other metrics like pH and salts. A struggle ensues to maintain productivity by adding more nutrients; often making things worse! What are the keys to long term soil health and productivity in protected culture? Judson will share personal experience and data from dozens of farms, as well as advice from those farmers. This session will focus on tomatoes and other fruiting vegetables, but will have implications for winter management too.*

Judson Reid

2:30 - **Winter High Tunnel Production** - *What is required to keep production flowing for consistent market sales all winter long in our mid-MO climate.*

Liz Graznak

Break

3:45 – **Crop Rotation** - *High tunnel production has continued to grow in the Midwest providing an engine for local food production. However, many growers choose to utilize these structures primarily (or even exclusively) for tomato production leading to very little room for crop rotation. Learn about research projects to determine the feasibility of high tunnels for other high-value crops like strawberries, sweet potato slips, melons, and others for high tunnel growers. During this presentation, we will explore some of these options and discuss different strategies for incorporating diversity into high tunnel production.*

Cary Rivard

4:45 – **Round table** - *A chance to follow up with today's presenters and other resource people*

Tuesday, February 18

8:00 am - **Getting started with an EQIP Tunnel** – *Securing and implementing an EQIP Tunnel from the perspective of NRCS staff and a successful applicant*

9:00—Winter nutrient and pest management – *True season extension happens in the cold months. Tunnels can be used to produce all kinds of greens and root vegetables in the winter months. However very little is known about nutrient and pest management in this new growing environment. Do winter greens need 600 lbs of nitrogen per acre! How do you control cabbage worms and aphids in January? Judson Reid shares data from trials on both nutrient and pest management in the colder months.*
Judson Reid

Break

10:15 Concurrent Sessions

Track 1

10:15 – **Winter cover cropping** – *The use of cover crops in field production systems has been well studied, and has been found to improve a number of soil health indicators such as water infiltration, soil organic carbon, cation exchange capacity and nitrogen fertility. The use of cover crops in high tunnels is not as well understood. When is the best time to plant them? What species grow well? Wouldn't it pay more to grow spinach for winter markets? Judson will share a case study that seeks to produce homegrown nitrogen for tunnels; decreasing applications of P, Mg and Ca. The goal is increased soil and crop health, fruit yield and quality, and profitability per tunnel. Tomatoes and other fruiting vegetables will be the focus of this talk, but winter growers will find benefit in the concepts discussed.*
Judson Reid

11:15 – **Greenhouse and High Tunnel Coverings** - *Recent research has revealed that light plays a major role on not only on plant and crop growth, but also nutritional quality for leafy and fruiting vegetables. High tunnels offer the option of manipulating light based on the type of covering that is utilized for these structures. This presentation will discuss research that KSU has been conducting with various high tunnel coverings as well as movable tunnels in an effort to address phytochemical production and nutritional quality. Learn how coverings can affect light and temperature in a tunnel, as well as plant photosynthesis, pigmentation, yield, and nutrition.*
Cary Rivard

Track 2

10:15 - **Introduction to Winter Production of Cut Flowers** - *Growing and marketing specialty cut flowers can be a profitable and rewarding business.*
Miranda Duschack

Lunch—Eat with an Expert

1:15 — **Focusing on High Value Crops**—*Liz Graznak crunches some numbers and discusses her thoughts on the profitability of growing 5 different vegetable crops.*
Liz Graznak

2:15 - **Round Table**—*A chance to follow up with our presenters and other resource people*

3:00 - **Farm tour**

Presenters

Judson Reid is a Senior Extension Associate with the Cornell Vegetable Program. In this position he manages a series of research and education projects throughout New York State for greenhouse, high tunnel and field production of fresh market vegetables. Judson is involved in the evaluation of grafting on tomatoes, cucumbers and eggplants; biological pest control, new cropping techniques and low temperature pest management concerns. An extensive network of private farm cooperators enhances his effective research and demonstration program. Current projects examine the viability of grafting of cucumbers for cold soil hardness, biological insect control in low temperature settings for mixed greens crops, PAR and yield influence of multi-story cropping as well as variety evaluations. Judson has conducted educational sessions with farmers in the U.S., Mexico, Canada, Caribbean, Africa, Eastern Europe, Central Asia and Cuba (New York) on these topics. Having spent his youth on a Northern New York dairy farm, Judson earned undergraduate and graduate degrees from Cornell University in agriculture.



Liz Graznak is a Columbia native whose love of gardening and the outdoors is the result of time spent outside with her grandparents growing up. It was in graduate school in at Cornell University that Liz discovered Community Supported Agriculture farming and realized her passion for growing food & building community. After working on a number of different farms out east Liz decided to move back to the Columbia area. While farming with her friend & mentor Dan Kuebler, who owns The Salad Garden in Ashland, MO., Liz realized that if she was ever going to be able to afford to purchase her own farm she was going to have to have a “real” job for a while. Liz worked for six years at Superior Garden Center honing her business & employee management skills. In November 2007 Liz & her wife Katie purchased Happy Hollow Farm. CSA farming has provided the opportunity to fulfill Liz’s long anticipated goal of growing beautiful, healthy food and sharing it with a community of people that share her enthusiasm and commitment to a local food system. Liz is entering her ninth year of USDA certified organic production and has expanded to nearly 7 acres of veggies, fruit, eggs & flowers. Liz and Katie have two daughters, aged 1 and 7. Happy Hollow Farm sells through a 65 member CSA, 50 Saturdays a year at the Columbia Farmers Market and to a number of local Columbia restaurants and grocery stores.



Cary Rivard, an associate professor and extension specialist, is director of the K-State Olathe Horticulture Center. He was born and raised near Kansas City, and received his B.S. in agricultural sciences and biology from Truman State University in Kirksville, Missouri. Cary completed his M.S. and Ph.D. in Plant Pathology at North Carolina State University and started at K-State in 2011. His current research includes organic and sustainable vegetable production, tomato grafting, and high tunnel production and he has statewide extension responsibilities including the delivery of the www.hightunnels.org website as well as Growing Growers KC.

Dr. Clement Akotsen-Mensah is the State IPM Specialist and Interim director of Innovative Small Farmers’ Outreach Program (ISFOP) at Lincoln University. He holds a Master’s degree focused on Biology and Biodiversity from Western Kentucky University and a PhD in Entomology from Auburn University. He has extensive experience conducting large scale research in tree fruit crops, vegetable and field crops and has collaborated on a number of internationally funded projects that looked at factors which determine yield loss.



Miranda Duschack is the co-founder and co-owner of Urban Buds, established in 2012. Together, she and Mimo Davis grow 70 different varieties of cut flowers annually on their one acre flower farm in south St. Louis city and sell at Tower Grove Farmers' Market, direct to florists, and design for wedding and events. In addition to farming, Miranda is a cooperative Extension agriculture educator for Lincoln University of Missouri.



Nahshon Bishop (far left) grew up in southwest Missouri around small family farms. After graduating from College of the Ozarks with a degree in Horticulture, Shon joined Lincoln University Cooperative Extension in the Southwest Region of Missouri and currently is the Small Farm Specialist for the Innovative Small Farmers Outreach Program (ISFOP) which serves Barry, Lawrence, McDonald, Newton, Jasper, and Greene counties. Shon has worked extensively with high tunnels since 2011.

Patrick Byers (above right) is Commercial Horticulture Field Specialist with University of Missouri Extension, serving 6 counties in southwest Missouri. Responsibilities include advisement to fruit and vegetable farmers to support sustainability and profitability. Research interests include native fruits, hops, and garlic. Patrick also specializes in produce food safety, helping to coordinate statewide training for fellow specialists and farmers. Patrick is interested in international agricultural issues, working with farmers in Uzbekistan, Moldova, Lebanon, Azerbaijan, Hungary, and China.



David Middleton (left) grew up on a diversified grain and livestock farm near Laddonia, Missouri. He graduated from the University of Missouri with a B.S. and M.S. in Animal Science. David joined Lincoln University Cooperative Extension (LUCE) in 2014 as the Farm Outreach Worker (FOW) for Lawrence and Greene Counties. With Shon Bishop, he has worked extensively with the Webb City Farmers Market's Year-Round Growing Education Center.

Robert Balek (right) is a horticulture specialist in the Jasper County office of University of Missouri Extension.



Hotel information—a discounted rate of \$89.95 plus tax per night is available until February 1 at:

Holiday Inn St. Louis West at Six Flags, 901 Six Flags Road, Eureka, Missouri 63025

636 938-6661

Ask for the Winter Production Conference rate

Save the Date! The Missouri Tomato School, Thursday & Friday, May 14 & 15, 2020

Platte County MU Extension, 11724 NW Plaza Circle #300, Kansas City, MO 64153

Day 1—presentations by Dr. Rick Snyder, organizer of the Mississippi Greenhouse Tomato Short Course, Dr. Joe Kemble, Auburn University & other regional experts.

Day 2—a morning of farm visits with instruction by Drs. Snyder & Kemble.

Registration fee of \$30 includes Days 1 & 2 activities, one lunch, & Dr. Snyder's Tomato Handbook.

For information, contact Eileen at 417 483-8139 or eileennichols@sbcglobal.net

Registration Form

Full registration (\$50) includes lunch each of the two days and materials. Additional registrations from the same farm or group (\$35) each include lunch each of the two days but no materials. For \$50 registrations, please circle your choice of book below. Paid registration must be received by February 1* to guarantee a book.

Greenhouse and Hoophouse Grower's Handbook by Andrew Mefferd

OR* **Winter Harvest Handbook by Eliot Coleman**

Mail with check made out to Webb City Farmers Market to :

Webb City Farmers Market, PO Box 1. Webb City, MO 64870

Questions or need to use your credit card? Call Eileen at 417 483-8139.

Name

Farm/Business Name

PO Box/street address

E-mail address

Town/State/Zip

Telephone

Additional person(s) attending:

Email or mailing address if different from above

Fee(s):

Full registration (\$50) \$ _____

Additional registrations (the \$35 rate does not include the book) (_____ persons x \$35 each) \$ _____

Dietary or other information: _____ Total enclosed: _____

Would you like your contact information shared with other attendees? Yes _____ No _____

Please share information with us about attendees you are registering.

I am considering starting winter production _____

I am a beginner winter producer _____

I am an experienced winter producer _____

I am an educator _____

Registrations and walk-ins after February 1 are welcome but cannot be guaranteed to receive meals or materials.