
I AM EXPO

The premier
show for fruit and
vegetable growers,
greenhouse growers
and farm marketers!

**100+ VIRTUAL EDUCATION
SESSIONS AND WORKSHOPS**

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GREAT LAKES VIRTUAL EXPO DEC. 8-10, 2020



INVITATION FROM THE GREAT LAKES EXPO BOARD

For the past 19 years the Great Lakes Fruit Vegetable and Farm Market Expo has been held in Grand Rapids. Because of this year's unprecedented circumstances we are holding the event online! It will be an unforgettable event. We invite you to participate in the first ever Virtual Great Lakes Expo, December 8 - 10, 2020.

Over three days, you will be able to visit with experts in our virtual tradeshow, network with other professionals, enjoy the awards page and poster sessions and take in the education program. The education program includes sessions on fruit crops, vegetable crops, other specialty crops, greenhouse crop production and marketing, farm marketing ideas and operations, farmers' markets and organic production and marketing. There will also be sessions covering diversity of general interest topics, including food safety and labor.

During the Virtual Trade Show, exhibitors will be showing a variety of products and services for growers, greenhouse and farm marketers. Exhibitors include farm equipment companies, seed companies, nurseries, fertilizer and farm chemical manufacturers and suppliers, packaging equipment and container companies, and greenhouse-specific suppliers. The trade show also includes an area for exhibitors offering products specifically for Farm Markets. Many state and federal agencies also exhibit, updating attendees on current programs and regulations.

We look forward to "seeing" you in December!

Adam VanDyk

President

Great Lakes Expo Board

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REGISTRATION

Register online at www.glexpo.com

Registration fees cover admission to the trade show and all the education sessions. Registration fees for attendees is \$40, and \$25 for current college students.

EXPO HIGHLIGHTS

Trade Show

The EXPO's trade show is one the largest shows for fruit and vegetable growers, greenhouse growers and farm marketers in North America! This year's show will be on a virtual platform. This platform will allow attendees to visit exhibit booths, place SWAG in a virtual briefcase and have personalized one-on-one meetings with booth personnel.

Meet the Experts

Throughout the EXPO, experts will be on hand in our new Genius Bars to answer questions in a virtual meeting room. The topics include; All About Apples - Stump the Educators, Berries and Small Fruit, Ecosystem-based Fruit and Vegetable Production, Enviroweather, Hemp, La Coshecha - a Spanish language session, and Nematology. Look for these in the Auditorium Schedule on the event platform!

Education Program

The education sessions start on Tuesday at 9:00am. Over three days, the program includes sessions on fruit crops, vegetable crops, other specialty crops, greenhouse crop production and marketing, farm marketing ideas and operations, farmers markets, and organic production and marketing. There will also be sessions covering a diversity of general interest topics including Mechanical Cultivation, Sprayer Technology, Beginning Farmer, and Emerging Pest Issues.

Sessions will all be held in the virtual platform and attendees will have the opportunity to watch all sessions that are offered throughout the EXPO. All sessions will be recorded and available for viewing on the virtual platform for 30 days after the end of the EXPO.

Presentations will be made by researchers and Extension educators from Michigan State University, and other land

grant universities and industry. Many of the education sessions will offer credits in 1 hour increments for Michigan and Ohio Private and Commercial Pesticide Applicators and Certified Crop Advisors.

Michigan State Horticultural Society Annual Meeting

The annual meeting of the Michigan State Horticultural Society (MSHS) will be held on Tuesday, December 8 at 4:30 PM. All members are invited to attend.

Michigan Vegetable Council Annual Meeting

The annual meeting of the Michigan (MVC) will be held on Tuesday, December 8 at 7:00 PM. All members are welcome.

Prayer Breakfast Speaker

On Wednesday, December 9 at 8:00am the annual Prayer Breakfast will be held. This year we will not be having breakfast in the same room but we will have a very inspirational speaker, David Smeltzer, a Michigan apple grower and former MSHS board member.

16 years of Jail Ministry; an interactive approach; lessons learned along the way

Have you ever wondered about or considered possibly joining a jail ministry? David Smeltzer, a 5th generation fruit farmer from Bear Lake, will share his experiences as he has walked this journey of faith for 16 years. He will talk about what it takes to journey with people trapped in the bondage of drugs and alcohol and the emotions of watching Christ work in peoples lives. Come prepared with questions and be prepared to interact in his talk.

SCHEDULE AT A GLANCE

Farm Market

Tuesday Morning

Farm Marketing 1

Tuesday Afternoon

Farm Marketing 2
COVID 19 Farm Market Roundtable

Wednesday Morning

Farm Marketing 3

Wednesday Afternoon

Farm Marketing 4
Farm Marketing 5

Thursday Morning

Farm Marketing Workshop 1 -
Argitourism 101

Thursday Afternoon

Farm Marketing Workshop 2 –
Creating Beautiful Market Bouquets
Farm Marketing Workshop 3 - How
to Create a Farm Website that Sells

Fruit

Tuesday Morning

Berries
Sweet Cider

Tuesday Afternoon

Apple 1
Apple 2
Grapes

Wednesday Morning

Blueberry 1
Cherry 1
Cherry 2

Wednesday Afternoon

Apple 3
Apple 4
Blueberry 2
Blueberry 3
Peach and Plum 1
Peach and Plum 2

Thursday Morning

Hard Cider

General Interest

Tuesday Morning

Mechanical Cultivation 1
Mechanical Cultivation 2
Managing Arthritis and Joint Pain
Labor 1

Tuesday Afternoon

Food Safety 1
Food Safety 2
Beginning Farmer 1
Emerging Pest Issues 1
Emerging Pest Issues 2

Wednesday Afternoon

Pesticide Resistance Management
Protected Culture 1
Protected Culture 2
Soil Health 1
Soil Health 2
Here Comes da Boom: Sprayer
Technology
Beginning Farmer 2
Hemp

Thursday Morning

Irrigation 1
Irrigation 2
Labor 2

Thursday Afternoon

Consumer Insights
La Cosecha

Greenhouse

Tuesday Morning

Enhancing Profitability of Spring
Crops by Reducing Inputs and
Shifting Labor
Controlling Insects and Diseases in
Retail Greenhouses
Greenhouse and Controlled
Environment Hemp Production
New Greenhouse Disease
Management Recommendations

Tuesday Afternoon

The MSU Extension COVID-19 Hazard
Assessment and Mitigation Plan
(MSUE CHAMP) e-Tool
PGRs for Spring Crops
Optimizing sticking of cuttings
Latest and Greatest from MSU
Floriculture Researchers

Wednesday Morning

Keep the Plant Demand Growing
Growing with LEDs in the
Greenhouse: An Industry
Prospective
New and Novel Varieties
Factors that Influence the Success
of a Biological Control Program

SCHEDULE AT A GLANCE

Wednesday Afternoon

Common Problems Encountered When Implementing a Biological Control Program

Lessons from the Field: Better Practices for Remote Sales

Best Performing Annuals and Perennials in Michigan

Thursday Morning

Do High Tunnels Make the Cut for Specialty Cut Flowers: Top crops, Production and Handling Pointers

Shrubs as Cut Flowers: Simple, Versatile, Profitable

Bootstrapping a New Cut Flower Farm with the Time, Space, and Money You Have

Vegetable

Tuesday Morning

Asparagus 1

Pickling Cucumber 1

Asparagus 2

Pickling Cucumber 2

Tuesday Afternoon

Potato 1

Tomato/Pepper/Eggplant 1

Potato 2

Tomato/Pepper/Eggplant 2

Processing Vegetables 1

Processing Vegetables 2

Wednesday Morning

Vine Crops 1

Vine Crops 2

Onion

Wednesday Afternoon

Celery

Sweet Corn 1: Worm Issues

Sweet Corn 2: Birds and Weeds

Organic

Wednesday Morning

Large Scale Organic

Thursday Afternoon

Organic Fruit Production 1

Organic Fruit Production 2

Organic Opportunities 1

Organic Opportunities 2

Organic Vegetable Production 1

Organic Vegetable Production 2

Intro to Organics - Farmer Round Tables



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¹Source: BRANDT Field Trials 2016-2018

FARM MARKETING

Tuesday

11:00 AM - 12:00 PM

Farm Marketing 1

11:00 AM: **3 Steps to a Profitable Farm** - Charlotte Smith, 3 Cow Marketing

1:00 PM - 2:00 PM

Farm Marketing 2

1:00 PM: **Michigan Agritourism Association Update** - Janice Benson, MATA, Natalie Klackle, MATA

1:15 PM: **What We Do at Flinchbaugh Orchard and Farm Market** - Julie Keene, Flinchbaugh Orchard and Farm Market

3:30 PM - 5:30 PM

COVID 19 Farm Market Roundtable

Topics covered in this roundtable include school tours, CSA's, Farm and Farmer's Markets.

Wednesday

9:00 AM - 11:00 AM

Farm Marketing 3

9:00 AM: **Hosting Successful Farm Dinners** - Abra Berens, Granor Farm

10:00 AM: **Farm to Print: The Ins and Outs of Book Publishing** - Abra Berens, Granor Farm

1:00 PM - 3:00 PM

Farm Marketing 4

1:00 PM: **Farm Stay Best Practices** - Scottie Jones, Farm Stay USA and Leaping Lamb Farm

2:00 PM: **Creating Polished Farm Promotion and Recruitment Videos** - Randy Strobl, Wrinkle Creative, Mallory Patterson, Wrinkle Creative

3:30 PM - 5:30 PM

Farm Marketing 5

3:30 PM: **Pick-Your-Own Flower Field** - Adrienne Gammie, Marilla Field and Flora

4:30 PM: **How to Get Guest Into Your Market and Keep Them Coming Back** - Julie Keene, Flinchbaugh Orchard and Farm Market

Thursday

9:00 AM - 11:00 AM

Farm Marketing Workshop 1

Agritourism 101

9:00 AM: **Customer Service Tips for Including Guests With Disabilities** - Miranda Grunwell, Disability Network Southwest Michigan

9:40 AM: **Conducting Last Minute Events** - Jenny Ferels, Lewis Adventure Farm & Zoo

10:20 AM: **Partnering With Other Businesses for Successful Events** - Wendy Winkel, Grandpa Tiny's Farm

1:00 PM - 3:00 PM

Farm Marketing Workshop 2

Creating Beautiful Market Bouquets

3:30 PM - 5:30 PM

Farm Marketing Workshop 3

How to Create a Farm Website that Sells

FRUIT

Tuesday

10:00 AM - 12:00 PM

Berries

10:00 AM: Fall Strawberry Production - Pam Fisher, Retired OMFRA Berry Specialist

10:25 AM: Managing Thrips in Strawberries - Celeste Welty, Ohio State University

11:00 AM - 1:00 PM

Sweet Cider

11:00 AM: Sweet Cider Pathogens and Their Management - Les Bourquin, Michigan State University Extension

11:45 AM: The Impact of Covid 19 on our Sweet Cider Production and Sales, a Grower Panel - Jim Engelsma, Engelsma's Cider Barn, Alicia Estrada, Plymouth Orchards and Cider Mill, Bill Emery, Erwin Orchards, Abbey Jacobson, Westview Orchards, Mike Titus, Yates Cider Mill

12:25 PM: MDARD Update and Cider Mill Inspections for 2020 - Mike Lally, MDARD

12:40 PM: Michigan Cider Makers Guild Update - Alicia Estrada, Plymouth Orchards and Cider Mill, Rob Nelson, Northville Cider Mill

1:00 PM - 2:00 PM

Apple 1

1:00 PM: Insect Control - Dr. Larry Gut, Michigan State University

- Management of Codling Moth Using Sterile Insect Releases
- Managing BMSB to Maintain Fruit Quality and Production Efficiency
- Pheromone-Based Mating Disruption for Managing San Jose Scale

1:30 PM: Permanent Spray System and Scab Reduction - Dr. Matthew Grieshop, Michigan State University

- Season Long Evaluation of a Solid-Set Canopy Delivery System with Optimized Microemitter Placement
- Comparison of Residue to Urea for Reducing Spring Apple Scab Inoculum

2:00 PM - 3:00 PM

Apple 2

2:00 PM: New Apple Variety Discussion - Dr. Bill Shane, Michigan State University

- Apple Germplasm for the Fresh and Processing Industries
- Evaluation of MAIA Apple Germplasm

2:10 PM: Crop Load Tips - Dr. Steven Van Nocker, Michigan State University

- Precision Control of Crop Load and Alternate Bearing

2:20 PM: Orchard Planning Resources - Dr. Erin Bunting, Michigan State University

- Online Map-Based Decision Support System for Topographic Site Planning in Apple Orchards

2:30 PM: Reflections from Phil Schwallier, Michigan State University Extension

- Forty Years of Extension Work

3:30 PM - 5:30 PM

Grapes

3:30 PM: Grape Disease Update - Tim Miles, Michigan State University

3:50 PM: Insect Update in Grapes - Rufus Issacs, Michigan State University

4:15 PM: Challenges Growing Wine Grapes in Northwest Michigan - Esmaeil Nasrollahiazar, Michigan State University Extension

4:35 PM: Growing Minnesota Cold Climate Grapes - Annie Klodd, University of Minnesota

7:00 PM - 8:00 PM

Emerging Pest Issues 1

7:00 PM: Cherry Development and Growing Degree Day Model for Predicting Spotted Wing Drosophila infestations - Nikki Rothwell, Michigan State University

7:25 PM: Changing Times - Outlook on Tree Fruit Disease Management in Michigan During the Next Decade - Heather Leach, Pennsylvania State University

7:00 PM - 8:00 PM

Emerging Pest Issues 2

8:00 PM: Status of the Invasive Spotted Lanternfly in the Northeastern U.S. - Heather Leach, Pennsylvania State University

8:25 PM: Introduction to the Asian Giant Hornet - Cassie Cichorz, Washington State Department of Agriculture

FRUIT

Wednesday

10:00 AM - 11:00 AM

Blueberry 1

10:00 AM: **Blueberry Disease Update** - Tim Miles, Michigan State University

10:25 AM: **Weed Control Options in Blueberries** - Sushila Chaudhari, Michigan State University

11:00 AM - 12:00 PM

Cherry 1

11:00 AM: **Utah Research on High Density Tart Cherries, can we get competitive yields?** - Brent Black, Utah State University

11:20 AM: **Orchard Systems, Automation, and Frost Protection in the PNW** - Matt Whiting, Washington State University

12:00 PM - 1:00 PM

Cherry 2

12:00 PM: **Little Cherry Disease** - Scott Harper, Washington State University

12:25 PM: **Little Cherry Disease** - Tobin Northfield, Washington State University

1:00 PM - 2:00 PM

Apple 3

1:00 PM: **Maximizing Apple Storability and What we've learned about bitterpit in Honeycrisp** - Dr. Randy Beaudry, Michigan State University

- Dynamic Controlled Atmosphere (DCA) Storage: Maximizing Storability While Reducing Disorders
- Bitter Pit Characterization, Prediction, and Mitigation in Honeycrisp

1:20 PM: **Apple Tree Physiology** - Dr. Todd Einhorn, Michigan State University

- New Thinning Strategies to Improve Apple Profitability and Predictability
- Optimizing Tree Quality for Early Orchard Establishment
- PGR Strategies to Reduce Bitterpit of Honeycrisp
- Evaluation of Multiple Leader High Density Apple Training Systems, 2020

2:00 PM - 3:00 PM

Apple 4

2:00 PM: **Black Stem Borer Control** - Dr. George Sundin, Michigan State University

- Shoot Blight Management with Reduced Rates of Apogee, Actigard and Coppers

2:15 PM: **Augmentative Releases of the Sumarai Wasp Against Brown Marmorated Stink Bug** - Dr. Marianna Szucs, Michigan State University

2:25 PM: **Trunk Injection Control of Black Stem Borer in Apples** - Dr. John Wise, Michigan State University

2:35 PM: **Apple Replant Experiment at Clarksville Research Center** - Dr. Julianna Wilson, Michigan State University

- Apple Replant Experiment at Clarksville Research Center

1:00 PM - 2:00 PM

Blueberry 2

1:00 PM: **Blueberry Insect Update** - Rufus Issacs, Michigan State University

1:25 PM: **Restoring Michigan Blueberries** - Mark Longstroth, Michigan State University

2:00 PM - 3:00 PM

Blueberry 3

2:00 PM: **What Difference Does Mulch Make?** - Bernadine Strik, Oregon State University

2:35 PM: **Update from Michigan Blueberry Commission** - Kevin Robson, Michigan Blueberry Commission

7:00 PM - 8:00 PM

Peach and Plum 1

7:00 PM: **Plum, Set, Match: A Grower's Guide to Winning the Ultimate Pollinizer & Fruit Set Game** - Brian Smith, University of Wisconsin

7:30 PM: **New Trends in the Peach Tree Nursery Business at Sierra Gold Nurseries** - Brent Burky, Sierra Gold Nurseries

8:00 PM - 9:00 PM

Peach and Plum 2

8:00 PM: **Strategies to Keeping Peach Orchards Free from Virus Problems** - Elizabeth Cieniewicz, Clemson University

Thursday

10:00 AM - 11:30 AM

Hard Cider

10:00 AM: **What's New in Cider and Consumption In The U.K. And E.U.** - Neil Macdonald, Orchard Park Farm

10:25 PM: **Hard Cider Orchard Systems and the Harvest Process in England** - Neil Macdonald, Orchard Park Farm

11:00 PM: **Changes My Cidery Made in the Face of Covid-19** - MI Cider Maker Panel

GENERAL INTEREST

Tuesday

9:00 AM - 10:00 AM

Mechanical Cultivation 1

9:00 AM: **Stacking Tools for Better Weed Management**
- Eric Gallandt, University of Maine

9:20 AM: **Balancing Weed Control with Soil Health: A Farmer's Perspective** - Jean Paul Courtens, Philia Farm

9:40 AM: **Q&A**

10:00 AM - 11:00 AM

Mechanical Cultivation 2

10:00 AM: **Nuts and Bolts: Selecting and Calibrating Tools for Your Farm** - Sam Tilton, Lakeshore Technical College

10:20 AM: **Mechanical Cultivation at PrairieEarth Farm** - Hans Bishop, PrairieEarth Farm

10:40 AM: **Q&A**

11:00 AM - 1:00 PM

Labor 1

11:00 AM: **View from Capitol Hill: Federal Legislative Update** - Michael Marsh, National Council of Agricultural Employers

11:35 AM: **NASS Farm Labor Survey and the AEWR**
- Michael Marsh, National Council of Agricultural Employers

12:05 AM: **Immigration Reform** - Craig Regelbrugge, AmericanHort

11:00 AM - 12:00 PM

Managing Arthritis and Joint Pain

11:00 AM: **Occupational Therapy Methods to Reduce Joint Pain** - Stephanie Tamminga, Davenport University Occupational Therapy Program

11:30 AM: **Farm Equipment Modifications to Reduce Joint Pain** - Ned Stoller, Michigan AgrAbility

1:00 PM - 2:00 PM

Food Safety 1

1:00 PM: **Sanitizer Choices for Treating Irrigation Water and Their Effectiveness** - Chris Gunter, North Carolina State University

1:25 PM: **Biofilms: What are They and Why Should I Care?** - Laura Strawn, Virginia Tech

2:00 PM - 3:00 PM

Food Safety 2

2:00 PM: **Strategies for Maintaining Hygienic Cold Rooms** - Craig Kahlke, Cornell University

2:25 PM: **2020 Produce Inspections: Season in Review**
- Brent Krieger, Michigan Department of Agriculture and Rural Development (MDARD)

7:00 PM - 9:00 PM

Beginning Farmer 1

7:00 PM: **Beginning Farmer Meet and Greet and Q&A**

8:00 PM: **Farmer Panel of "Getting Started to Farm-My Story"**

Wednesday

12:00 PM - 3:00 PM

Hemp Production for Beginners

12:00 PM: **Hemp Production in Michigan: The Basics** – Eric Anderson, Michigan State University

12:45 PM: **Hemp Licensing and Regulations for 2021** – Gina Alessandri, MDARD

1:30 PM: **Hemp Irrigation Considerations** – Lyndon Kelley, Michigan State University

2:15 PM: **Hemp Grower and Processor Panel Discussion** – Nate Wittkamp, Mike Klumpp, Ag Marvels, LLC, Lori Whitmyer, Edgewood Farms, Eric Kietzer, Kietzer Farms

1:00 PM - 3:00 PM

Protected Culture 1

1:00 PM: **Biologicals to Manage Greenhouse Pests** - Steve Bogash, Marrone Bio Innovations, Inc

1:25 PM: **Rotation Strategies for Protected Culture** - Judson Reid, Cornell University

2:00 PM - 3:00 PM

Protected Culture 2

2:00 PM: **Grafting for Protected Culture Production** - Matt Kleinhenz, The Ohio State University

2:25 PM: **High Tunnel Leafy Green Production** - Matt Kleinhenz, The Ohio State University

3:30 PM - 5:00 PM

Pesticide Resistance Management

3:30 PM: **Fungicide Resistance in Tree Fruit Pathogens: How, Why, and What Next?** - George Sundin, Michigan State University

GENERAL INTEREST

4:00 PM: Preserving Insect Susceptibility to Synthetic and Biological Compounds Using Resistance Management Practices for Sustainable Production - David Mota-Sanchez, Michigan State University

4:30 PM: Herbicide Resistance: Status, Mechanism, and Management Strategies in Perennial Crops - Sushila Chaudhari, Michigan State University

3:30 PM - 4:30 PM

Soil Health 1

3:30 PM: Is My Soil Healthy? Observing and Assessing Soil Health Indicators on Your Farm - Julie Grossman, University of Minnesota

3:55 PM: Fertility in the Context of Soil Health - Allen Philo, BioStar Organics

4:30 PM - 5:30 PM

Soil Health 2

4:30 PM: Mustard Over Crops for Biofumigation - Jim Jasinski, The Ohio State University

4:55 PM: Experiences in Integrating Cover Crops on a diverse Vegetable Farm - Jean-Paul Stewart-Courten, Philia Farm

Here Comes da Boom: Sprayer Technology

4:30 PM: Shielded Sprayers and Weed Escapes: is There New Technology That Can Help Me Stay Sane, Kill Weeds and Not My Crop? - Jason Deveau, Ontario Ministry of Food, Agriculture and Rural Affairs

4:50 PM: The \$164,000 Question: Watch an Expert get Grilled on Design Pros and Cons of Different Air Assist Sprayers - Jason Deveau, Ontario Ministry of Food, Agriculture and Rural Affairs

5:10 PM: Q&A

7:00 PM - 9:00 PM

Beginning Farmer 2

7:00 PM: The Virtues of Cover Crops to Support Soil and Crop Health - Julie Grossman, Minnesota State University

7:25 PM: Choosing Robust Varieties to Meet Your Farming and Market Needs - Ron Goldy, Michigan State University Extension

8:00 PM: EQIP for Beginning Farmers - USDA NRCS Michigan Representative

8:30 PM: Q&A

Thursday

9:00 AM - 10:00 AM

Irrigation 1

9:00 AM: Improving Irrigation Water Use Efficiency Using Sensor Technology - Younsuk Dong, Michigan State University

9:25 AM: Managing Overhead Irrigation to Reduce Leaf Wetting Frequency and Improve Water Use Efficiency - Lyndon Kelley, Michigan State University

10:00 AM - 11:00 AM

Irrigation 2

10:00 AM: Updated Water Council and Water Policy - Laura Campbell, Michigan Farm Bureau, Jason Walter, Andy Le Baron, EGLE

10:25 AM: Midwest Water Stewards - Todd Feenstra, Tritium, Inc.

11:00 AM - 12:00 PM

Labor 2

11:00 AM: MSU's CHAMPs Program - Melissa Millerick-May, Michigan State University

11:30 AM: MIOSHA and Farm Worker Safety

1:00 PM - 2:00 PM

Consumer Insights

1:00 PM: Moving the Conversation from "Can We Grow It?" to "Should We Grow It?" - Trey Malone, Michigan State University

1:00 PM - 3:00 PM

La Cosecha

• La Cosecha (the Harvest) a program to train Latinx beginning farmers: Pesticide education and business. Talks in Spanish by Antonio Castro-Escobar MDARD, Florencia Colella, MSU Extension, Juan Pedro Solorio and David Mota-Sanchez MSU Entomology
- David Mota-Sanchez, Michigan State University

GREENHOUSE

Tuesday

9:00 AM - 9:50 AM

Greenhouse 1

Enhancing Profitability of Spring Crops by Reducing Inputs and Shifting Labor

Royal Heins, Michigan State University, Professor Emeritus

Reducing the number of input liners and direct-stick propagation are two ways to reduce input costs, especially for larger containers that typically have more than one liner per container. Direct stick propagation into the final container reduces costs by eliminating the cost of producing and transplanting a similar number of liners and as well, shifts labor to earlier in the season with the potential to reduce overtime labor during traditional peak weeks. This presentation will review how one can reduce costs by reducing labor and input costs for early-season production.

9:00 AM - 9:50 AM

Greenhouse 2

Controlling Insects and Diseases in Retail Greenhouses

Rick Yates, GGSPRO Technical Services

Long hours of operation, high density plant displays, and customer aversion to pesticides combine to make insect and disease control in retail settings challenging. The first line of defense is to develop scouting and exclusion strategies. Biological control agents can be a part of the plan in certain situations. When pesticides are needed, short re-entry intervals, low odor, bloom safety, and high efficacy are top priorities. Specific pest-by-pest recommendations will be presented.

10:00 AM - 10:50 AM

Greenhouse 3

Greenhouse and Controlled Environment Hemp Production

Allison Justice, The Hemp Mine

In this seminar, Dr. Justice will discuss considerations for greenhouse and controlled environment hemp production, including: propagation, vegetation, flowering, and postharvest handling. High level discussions will occur for everything from propagation to drying/curing.

10:00 AM - 10:50 AM

Greenhouse 4

New Greenhouse Disease Management Recommendations

Mary Hausbeck, Michigan State University

This session will highlight the latest solutions for flower/leaf blights and root rots of floriculture crops based on MSU research. Practical, ready-to-use recommendations will be provided.

1:00 PM - 1:50 PM

Greenhouse 5

The MSU Extension COVID-19 Hazard Assessment and Mitigation Plan (MSUE CHAMP) e-Tool

Melissa Millerick-May, Michigan State University

Michigan State University Extension has developed a free e-tool, the COVID-19 Hazard Assessment and Mitigation Plan (CHAMP), to help agricultural operations assess and mitigate the risk of disease transmission among their workers and customers. This tool will help growers identify and implement appropriate and meaningful exposure control strategies to comply with regulatory requirements and protect themselves, their employees, and their community.

1:00 PM - 1:50 PM

Greenhouse 6

PGRs for Spring Crops

Rick Yates, GGSPRO Technical Services

There are equal parts of art and science when it comes to utilizing plant growth regulators (PGRs) on spring crops. PGRs can not only help us manipulate plants into the shape and size we desire, when used properly they can also maximize profitability. Learn the secrets of effective PGR applications, including how to overcome stunted growth.

2:00 PM - 2:50 PM

Greenhouse 7

Optimizing Sticking of Cuttings

Paul Fisher, University of Florida

Dr. Fisher will discuss the different types of cuttings available and how to improve your sticking line. He will also discuss industry benchmarks, training and motivation for sticking line staff, and the economics of automated transplanters.

GREENHOUSE

2:00 PM - 2:50 PM

Greenhouse 8

Latest and Greatest from MSU Floriculture Researchers

Nikki Lukasko, Michigan State University

Roberto Lopez, Michigan State University

Daedre McGrath, Michigan State University

Erik Runkle, Michigan State University

Debalina Saha, Michigan State University

MSU faculty will share the latest on their findings from research projects supported by the Western Michigan Greenhouse and Metro Detroit Flower Growers Associations. Learn about the effects of calcium sprays for Botrytis, production recommendations for succulents and caladium, effects of mulching for liverwort control, hemp stock plant management, bioreactors to remediate water runoff, and the impact of the 2020 MSU Trial Gardens internship.

many benefits as well as a few of the challenges from your industry peers. Gain practical, real-world insight that will guide your facility in transitioning to LED supplemental and photoperiodic lighting.

10:00 AM - 10:50 AM

Greenhouse 11

New and Novel Varieties

Jason Twaddell, Ball Horticulture

Mike Fernandez, Danziger

Nathan Sell, Dummen-Orange

Jerry Gorchels, PanAmerican Seed

John Gaydos, Proven Winners

Jennifer Barnes, Syngenta Flowers

This session will highlight the new and novel plant varieties that Ball Horticultural Co., Danziger, Dummen-Orange, Pan American Seed, Proven Winners, and Syngenta Flowers have to offer.

Wednesday

9:00 AM - 9:50 AM

Greenhouse 9

Keep the Plant Demand Growing

Bridget Behe, Michigan State University

With the fundamental shift in plant demand due to COVID-19, how can growers and retailers keep sales growing? Bridget has some information and strategies to help growers and retailers use what they learned this past spring to continue to connect with consumers in spring 2021.

9:00 AM - 10:30 AM

Greenhouse 10

Growing with LEDs in the Greenhouse: An Industry Prospective

Tam Serrage, Revolution Farms

Drew Koschmann, Walters Garden

Wayne Blades, Wenke Greenhouses

Tom Gallagher, Consumers Energy

A panel of Michigan young and finish plant greenhouse growers will discuss their experiences and recommendations with growing floriculture and lettuce crops under LEDs. You'll hear the background stories of how and why they are switching to LEDs and what they have learned in the process. Hear about the

11:00 AM - 11:50 AM

Greenhouse 12

Factors that Influence the Success of a Biological Control Program

Raymond Cloyd, Kansas State University

Dr. Cloyd will address in detail the factors that can impact the success of a biological control program related to natural enemy quality; environmental parameters such as temperature, humidity, daylength, and light intensity; and plant characteristics including trichomes (hairs). He will emphasize the importance of understanding these factors to ensure the success of implementing a biological control program.

12:00 PM - 12:50 PM

Greenhouse 13

Common Problems Encountered When Implementing a Biological Control Program

Raymond Cloyd, Kansas State University

Dr. Cloyd will discuss the problems that may be encountered when developing and implementing a biological control program including: not developing a sound scouting program, not assessing the quality of purchased biological control agents, releasing biological control agents too late in production, and not using the correct biological control agent. The presentation will help you to be successful in implementing a biological control program.

GREENHOUSE

1:00 PM - 1:50 PM

Greenhouse 14

Lessons from the Field: Better Practices for Remote Sales

Mike Ouding, Kalamazoo Specialty Plants

Dirk Jonker, Jonker's Garden

Bridget Behe, Michigan State University

The spring 2020 season was unlike any other. Retailers made some dramatic business changes to respond to the COVID-19 circumstances. Industry leaders will discuss some of their lessons from the field including gearing up for online and curbside sales, managing inventory for online and in-person sales, and addressing labor concerns and issues.

2:00 PM - 2:50 PM

Greenhouse 15

Best Performing Annuals and Perennials in Michigan

Josh Miller, Four Star Greenhouses

Greg Michalak, Raker-Roberta's Yong Plants

Kristi Challender, Raker-Roberta's Yong Plants

Daedre McGrath, Michigan State University

Laura Robles, Walters Gardens

Brian Weesies, Mast Young Plants

Each year, hundreds of cultivars of flowering annuals and herbaceous perennials are trialed and displayed by participants of the Michigan Garden Plant Tour. Hear about the 2020 highlights from the MSU Trial Garden, Four Star Greenhouse, Mast Young Plants, Raker-Roberta's Young Plants, and Walters Gardens.

9:50 AM - 10:30 AM

Greenhouse 17

Shrubs as Cut Flowers: Simple, Versatile, Profitable

Stacey Hirvela, Spring Meadow Nursery

Adding shrubs to your cut flower production extends your sales season, provides a long-term income stream, and can utilize areas of your property that may not be suitable for growing other cuts. Join us to learn which plants to choose, how to grow them, and how and when to harvest for maximum profitability with minimal effort.

10:40 AM - 11:30 AM

Greenhouse 18

Bootstrapping a New Cut Flower Farm with the Time, Space, and Money You Have

Dave Dowling, Ednie Flower Bulb

What does it take to start a cut flower farm? Dave show us how to create a viable cut flower operation in a smaller space with little startup expense the first few seasons. Learn how to avoid making the same mistakes others have made and hear about some time-saving tricks everyone should try. Topics covered will be useful for new growers as well as those with a few years of growing experience.

Thursday

9:00 AM - 9:40 AM

Greenhouse 16

Do High Tunnels Make the Cut for Specialty Cut Flowers: Top Crops, Production and Handling Pointers

Roberto Lopez, Michigan State University

Are high tunnels worth the investment and potential headache over producing specialty cut flowers in the field? Roberto will share research information on how timing, yield and quality of a wide variety of specialty cuts are influenced between these two production techniques. Lastly, he will cover how to prolong the life of these varieties.

VEGETABLE

Tuesday

9:00 AM - 10:00 AM

Asparagus 1

9:00 AM: Drift Reduction Technology and a Homegrown Solution for a Delayed Postharvest Burndown in Asparagus - Jason Deveau, Ontario Ministry of Food, Agriculture and Rural Affairs

9:20 AM: Why are Hotspots so Hot? Investigating the Unknowns in Asparagus Beetle Overwintering Biology - Jennifer Zavalnitskaya, Michigan State University

9:00 AM - 10:00 AM

Pickling Cucumber 1

9:00 AM: Downy Mildew Management in Pickling Cucumbers - Mary Hausbeck, Michigan State University

9:25 AM: Managing Fields and Grading Sheds Under COVID-restricted Conditions - Philip Tocco, Michigan State University Extension

10:00 AM - 11:00 AM

Asparagus 2

10:00 AM: Nitrogen Management in Asparagus - Zachary Hayden, Michigan State University

10:20AM: Asparagus Emergence Studies - Dan Brainard, Michigan State University

Q&A

10:00 AM - 11:00 AM

Pickling Cucumber 2

10:00 AM Pickling Cucumber Research in Delaware - Gordon Johnson, University of Delaware

1:00 PM - 2:00 PM

Potato 1

1:00 PM: Colorado Potato Beetle Insecticide Resistance Management During Warmer than Normal Temperatures - Zsolia Szendrei, Michigan State University

1:25 PM: Foliar and Postharvest Potato Disease Management Recommendations - Jaime Willbur, Michigan State University

1:00 PM - 2:00 PM

Tomato/Pepper/Eggplant 1

1:00 PM: ToBRFV and Other Virus Diseases - Mary Hausbeck, Michigan State University

1:25 PM: Thrips Control - Xavier Martini, University of Florida

2:00 PM - 3:00 PM

Potato 2

2:00 PM: Integrated Management of Potato Early Die: Disease Complex Dynamic and Treatment Effectiveness - Emilie Cole, Michigan State University & Luisa Parrado Guevara, Michigan State University

2:25 PM: Weed Control Challenges and Management Strategies for Potatoes in 2021 - Erin Burns, Michigan State University

2:00 PM - 3:00 PM

Tomato/Pepper/Eggplant 2

2:00 PM: Biostimulants: Should I Use Them? - Matt Kleinhenz, The Ohio State University

2:25 PM: Getting the Most Out of Your Tomato Fertility - Chris Gunter, North Carolina State University

3:30 PM - 4:30 PM

Processing Vegetables 1

3:30 PM: How do you get too much of a Good Thing? Nitrogen in Processing Veggies - Zachary Hayden, Michigan State University

3:50 PM: Heat Effects in Snap Beans - Gordon Johnson, University of Delaware

4:30 PM - 5:30 PM

Processing Vegetables 2

4:30 PM: Managing Phytophthora Capsici in Processing Squash - Mary Hausbeck, Michigan State University

5:10 PM: Integrating Cover Crops and Nematicides for Nematode Control in Veggie Rotations - Marisol Quintanilla, Michigan State University

VEGETABLE

Wednesday

9:00 AM - 10:00 AM

Vine Crops 1

9:00 AM: Plant Pumpkin Decisions Affecting Pollinators - Jim Jasinski, The Ohio State University

9:20 AM: The Grounder, the Line Drive, and the Pop Fly: Fielding Three Very Different Vine Crop Diseases - Mary Hausbeck, Michigan State University

10:00 AM - 11:00 AM

Vine Crops 2

10:00 AM: Using Grafted Plants in Cucumber and Melon Production - Wenjing Guan, Purdue University

10:40 AM: Parthenocarp and Fruit Set in Vine Crops - Gordon Johnson, University of Delaware

11:00 AM - 1:00 PM

Onion

11:00 AM: Controlling Stemphylium in Onions - Mary Hausbeck, Michigan State University

11:20 AM: Management of Problem Weeds in Onions - Sushila Chaudhari, Michigan State University

12:00 PM: Perspectives on Onion Marketing from Our NOA President - Doug Bulgrin, Gumz Farms

3:30 PM - 4:30 PM

Celery

3:30 PM: Screening Cover Crops for Their Ability to Host Plant Parasitic Nematodes - Marisol Quintanilla, Michigan State University

3:50 PM: Celery Weed Control Update - Sushila Chaudhari, Michigan State University

4:10 PM: Q&A

3:30 PM - 4:30 PM:

Sweet Corn 1: Worm Issues

3:30 PM: Current Efficacy and Management of BT Sweet Corn - Galen Dively, University of Maryland

3:50 PM: Year-to-year Variability in Corn Earworm and its Control with Pyrethroids - Celeste Welty, The Ohio State University

4:30 PM - 5:30 PM:

Sweet Corn 2: Birds and Weeds

4:30 PM: Laser Scarecrows: A 21st Century Approach to Birds in Corn - Rebecca Brown, University of Rhode Island

4:50 PM: Weed Control: Considerations Before you Fill Your Sprayer - Mark VanGessel, University of Delaware

5:10 PM: Q&A



ORGANIC

Wednesday

9:00 AM - 11:00 AM

Large Scale Organic

9:00 AM: **Soil Fertility Management in Organic Systems** - Allen Philo, BioStar Organics

9:25 AM: **Electric Discharge Systems for Weed Control in Sugarbeet** - Tom Peters, North Dakota State University

10:00 AM: **Mechanical Cultivation at PrairieEarth Farm** - Hans Bishop, PrairieEarth Farm

Thursday

1:00 PM - 2:00 PM

Organic Opportunities 1

1:00 PM: **Socially-Distant Direct Marketing: REKO Markets** - Heather Anderson, Green Wagon Farm

1:20 PM: **Socially-Distant Direct Marketing: Customizable CSA** - Rebecca Henderson, Green Wagon Farm

1:40 PM: **Q&A**

1:00 PM - 2:00 PM

Organic Fruit Production 1

1:00 PM: **Know Your Enemy: Update on SWD Ecology** - Matt Greishop, Michigan State University

1:30 PM: **Codling Moth Phenology 101: or How I Learned to Stop Worrying and Love Degree Day Models** - Matt Greishop, Michigan State University

2:00 PM - 3:00 PM

Organic Fruit Production 2

2:00 PM: **Codling Moth Sterile Insect Release Overview** - Chris Adams, Oregon State University

2:00 PM - 3:00 PM

Organic Opportunities 2

2:00 PM: **Cooperative Farm Marketing: Grown in Detroit** - Imani Foster, Keep Growing Detroit

2:00 PM: **Q&A**

3:30 PM - 4:30 PM

Organic Vegetable Production 1

3:30 PM: **Food Safety Certification for Organic Production** - Phil Tocco, Michigan State University

3:50 PM: **Organic Field and High Tunnel Tomato Production** - Steve Bogash, Marrone BioInnovations

4:10 PM: **Q&A**

4:30 PM - 5:30 PM

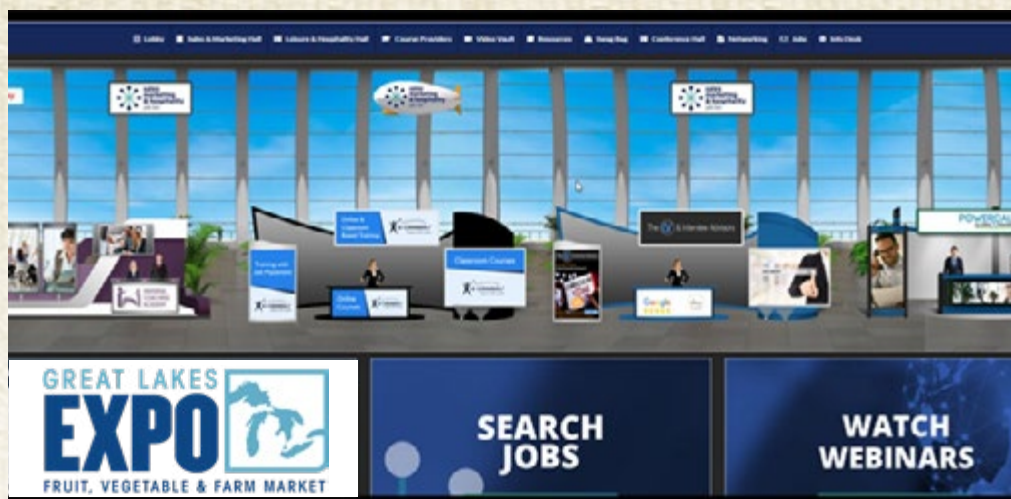
Organic Vegetable Production 2

4:30 PM: **Vegetable Disease Management for Organic Systems** - Judson Reid, Cornell University

4:50 PM: **Nematodes Managed While Improving Soil Health for Organic Production** - Marisol Quintanilla, Michigan State University

5:10 PM: **Q&A**

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