



MICHIGAN STATE UNIVERSITY | Extension

Southwest Michigan Greenhouse News & Notes
May 21, 2019

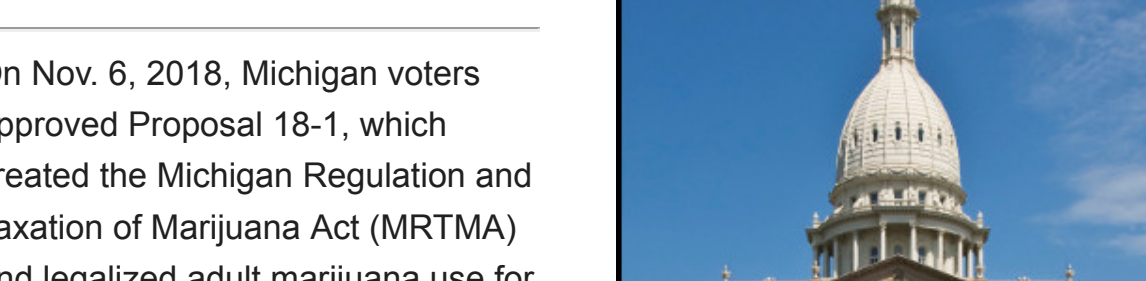
Topics covered in this issue:

1. Greenhouse LED Lighting Workshop
2. Recreational Marijuana Webinar Series
3. WMGA 2018 Project Highlight - Trial Gardens Intern
4. Summer Online Courses
5. Pesticide Container Recycling Program
6. Regulations for non-native aquatic plants
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10. Interesting Links

Free Lighting Workshop in June!

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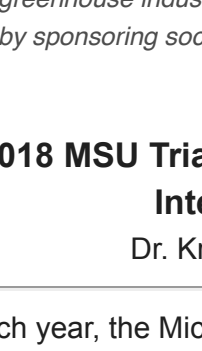
Horticultural Lighting Workshop: Are LEDs right for you?



Guest speakers: Dr. Erik Runkle and Dr. Roberto Lopez
from Michigan State University Dept. of Horticulture

Nationally-recognized experts in lighting applications for greenhouses, indoor farms, and other controlled environments

Thinking about using LEDs in your greenhouse or growing area? Dr. Runkle and Dr. Lopez will explain the most important factors to consider when selecting a lighting system for your operation.



Topics include:

- Lighting strategies for plant production
- Spectral wavelength combinations
- Lamp efficacies and durability
- Fixture costs and return on investment

Conventional and LED lighting fixtures will be discussed

*Join us on a tour of the LED installations at Kalamazoo Specialty Plants on historic Market Street! (5 min. drive after workshop)
Cost: Free! Registration is requested for handout preparation. Seating is limited to room size.

Online Registration and Agenda: bit.ly/ZooLED2019 Contact: [Jeremy Jubenville](mailto:Jeremy.Jubenville@msu.edu)
269-492-2813, jubenvj3@msu.edu

June 26, 2019
1:00PM - 3:00PM* Kalamazoo County Expo Center
2900 Lake Street, Kalamazoo, MI 49048 **Room 'B'**

MSU is an affirmative-action, equal-opportunity employer. Michigan State University Extension programs and materials are open to all.

[Click here to register for FREE!](#)

Hi everyone, there's a new webinar series on the Michigan Regulation and Taxation of Marijuana Act. It's designed primarily for local decision-makers, but I thought it might be of interest to some of us in the area. The first webinar begins May 23.
-Jeremy

Michigan and Marijuana: A Local Government Webinar Series

On Nov. 6, 2018, Michigan voters approved Proposal 18-1, which created the Michigan Regulation and Taxation of Marijuana Act (MRTMA) and legalized adult marijuana use for recreational purposes. Michigan State University (MSU) Extension, in partnership with the Michigan Department of Licensing and Regulatory Affairs (LARA), presents a webinar series...

[Click here to learn more!](#)



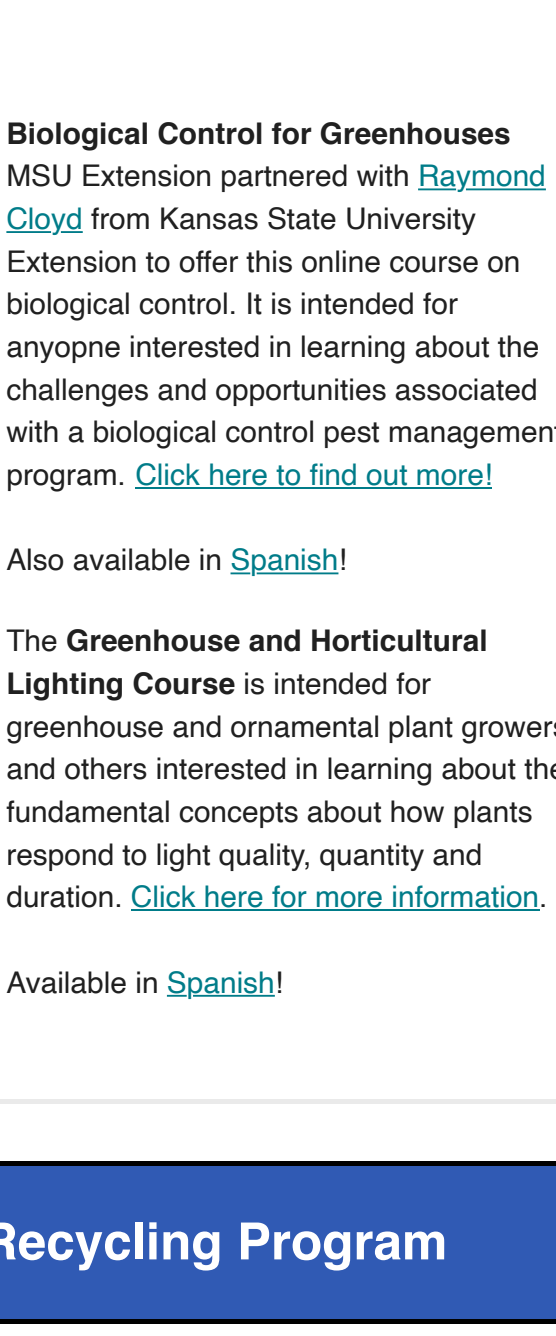
West Michigan Greenhouse Association 2018 Project Highlight

"The mission of the WMGA is to fund and prioritize floriculture/greenhouse research to improve the greenhouse industry in West Michigan. The association strives to unite and educate its members by sponsoring social, educational, and fund raising events."

2018 MSU Trial Gardens Student Internship

Dr. Kristin Getter

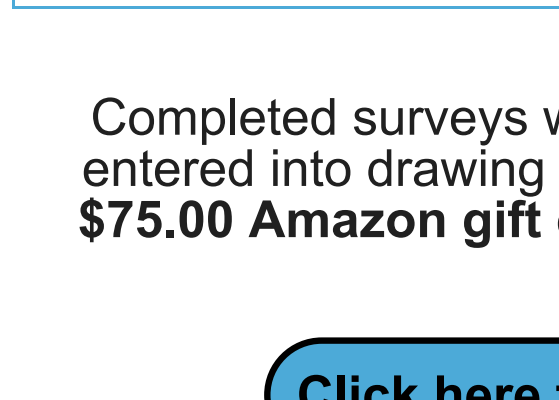
Each year, the Michigan State University (MSU) Annual Plant Trials have on display 400+ new introductions and industry standards for side-by-side comparisons. These ongoing trials are a highly visible component of our outreach to professionals and gardeners alike. Side-by-side comparisons are great for advertising and educating gardeners about the best performing plants for Michigan. The gardens are visited annually by tens of thousands of visitors who gain unbiased information about best annuals for Michigan gardens. The MSU Trial Gardens participate in the successful Michigan Garden Plant Tour which also attracts hundreds of professionals who interact with our staff and interns.



In 2018, the Western Michigan Greenhouse Association (WMGA) and Metro Detroit Flower Growers Association (MDFGA) jointly generously supported a student intern for the Annual Trial Gardens. Maleri Christofferson was hired for this position and she is a Horticulture student working on her B.S. degree with a concentration in Horticulture Science. Maleri worked with and assisted Daedre McGrath, the Trial Garden Manager, to plant, care for, and monitor over 400 annuals in the Annual Trial Gardens. She learned about plant evaluations and helped collect data on plant performance. The information was presented at Plant Trial Field Day (August 2018) and has since been published on our trial website (http://www.hrt.msu.edu/our_gardens/trial_garden). Maleri also participated in professional development opportunities, like visiting other trials gardens during the Michigan Garden Plant Tour.

[Click here to download the complete report!](#)

MSU Extension Online Courses: Summer Sessions



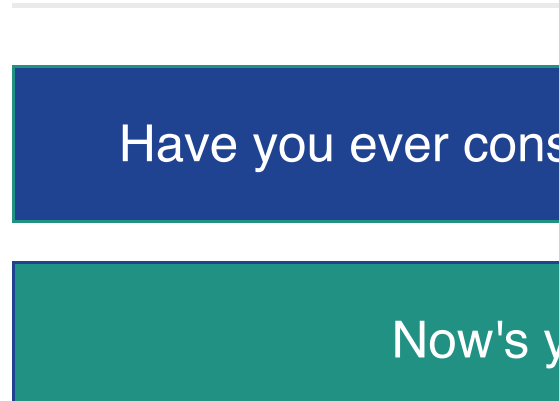
The Floriculture Root Zone Management course is for beginning-level floriculture growers. It covers the fundamental concepts about irrigation water, media and their effects on plant nutrition. [Click here to find out more!](#)

Now available in [Spanish](#).



Biological Control for Greenhouses MSU Extension partnered with [Raymond Cloyd](#) from Kansas State University Extension to offer this online course on biological control. It is intended for anyone interested in learning about the challenges and opportunities associated with a biological control pest management program. [Click here to find out more!](#)

Also available in [Spanish!](#)



The Greenhouse and Horticultural Lighting Course is intended for greenhouse and ornamental plant growers and others interested in learning about the fundamental concepts about how plants respond to light quality, quantity and duration. [Click here for more information.](#)

Available in [Spanish!](#)

Pesticide Container Recycling Program

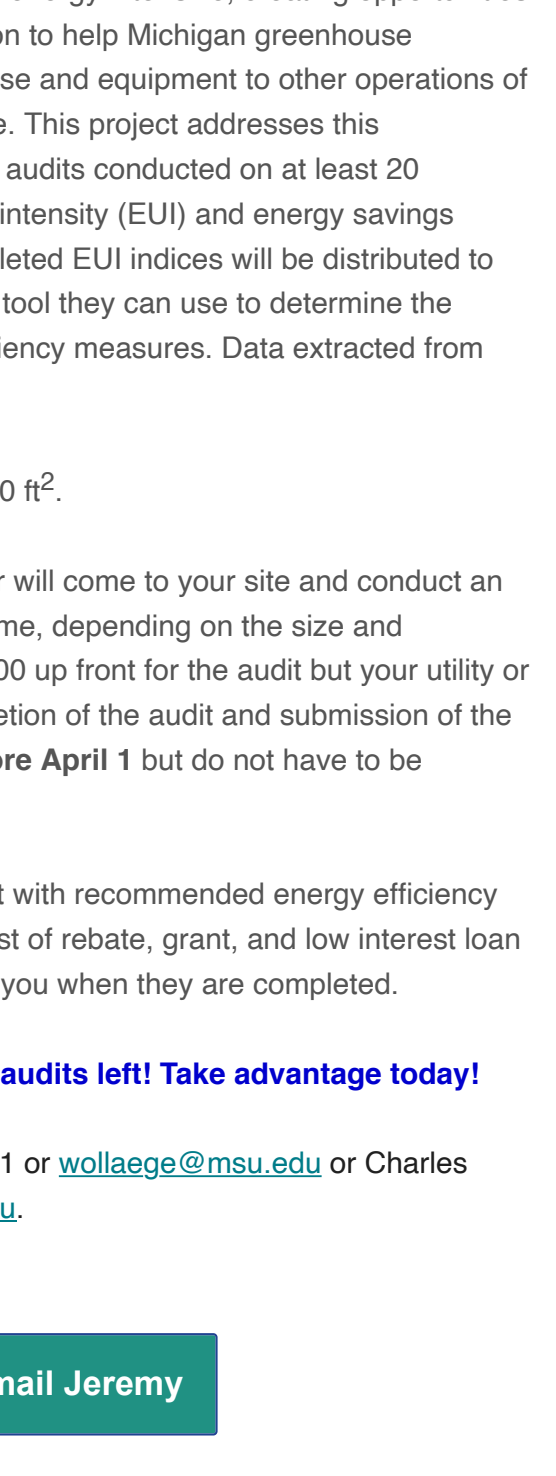
BFG customers can still return their triple rinsed pesticide containers to the Kalamazoo BFG location!

Large bags to collect and store your cleaned ag containers for recycling are available at BFG Supply. You can also tie up to 15 jugs together using twine.

Be sure to take advantage of this opportunity for easy disposal.

Guidelines and more information can be [found here!](#)

Contact Linda Zabik at 269-775-3365 or Linda.Zabik@mi.nacrdnet.net



Thank you so much to everyone that has responded to the IPM survey!

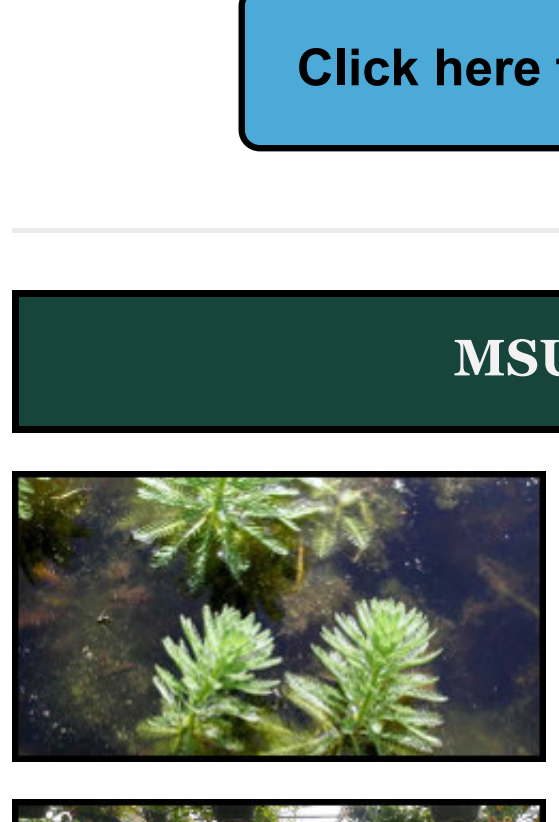
Just a "heads up" -- I'll be contacting greenhouses that haven't responded to help make sure we get a good representative sample of operations across Michigan.

If you'd rather just take the survey on your own, check out the link below. It takes less than 5 minutes! =)

Completed surveys will be entered into drawings to win **\$75.00 Amazon gift card!!**



[Click here for IPM Survey!](#)



Registration now required to sell non-native aquatic plants

by Heidi Lindberg

The Michigan legislature voted to amend the Natural Resources and Environmental Protection Act to require all retailers of live non-native aquatic species to register with the Michigan Department of Natural Resources (DNR) every calendar year. The new amendment applies to all people selling live...

[Continue reading...](#)

Have you ever considered an energy audit?

Now's your chance!

Are you less than 5 acres OR have a range less than 5 acres on its own energy meter?

We are looking for greenhouse partners to complete energy audits – at **NO COST** to you after rebate!

Greenhouse Energy Index Project

Purpose: Plant production in greenhouses is energy intensive, creating opportunities for larger potential energy savings. Information to help Michigan greenhouse operators compare their operations' energy use and equipment to other operations of similar size and business type is not available. This project addresses this information gap by analyzing certified energy audits conducted on at least 20 greenhouse operations to create energy use intensity (EUI) and energy savings indices for Michigan greenhouses. The completed EUI indices will be distributed to greenhouse operations across the state as a tool they can use to determine the potential impact of implementing energy efficiency measures. Data extracted from the energy audits will be aggregated.

Operation size: Less than 5 acres or 217,800 ft².

Your commitment: A certified energy auditor will come to your site and conduct an audit. It will require about 2-3 hours of your time, depending on the size and complexity of your operation. You will pay \$500 up front for the audit but your utility or electric co-op will reimburse you upon completion of the audit and submission of the rebate form. **Audits need to be started before April 1** but do not have to be completed by then.

The benefits: You will receive an audit report with recommended energy efficiency measures based on ROI. You will receive a list of rebates, grant, and low interest loan opportunities. The EUI indices will be sent to you when they are completed.

There are a limited number of free energy audits left! Take advantage today!

Contact us! Heidi Lindberg at (616) 994-4701 or wollage@msu.edu or Charles Gould at (616) 994-4547 or gouldcm@msu.edu
-or-

[Click here to email Jeremy](#)

Pssst... Can we bug you about bugs?

(it won't take long, I promise!)

The Michigan State University Extension Floriculture Team is currently conducting a **statewide survey** of greenhouses.

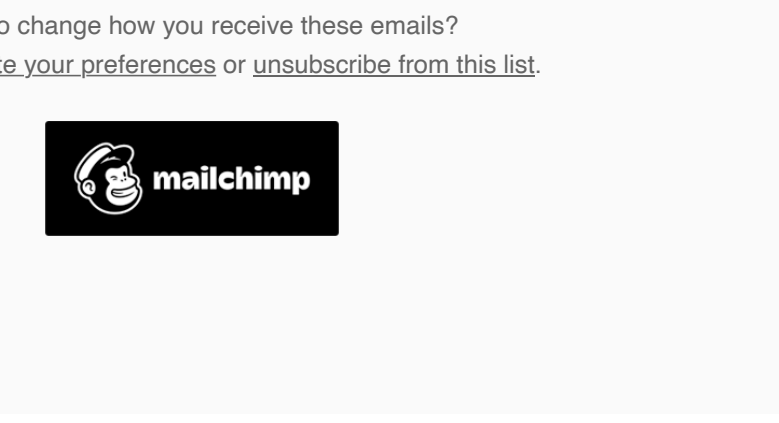
By taking this survey, you will help us:

- **Confirm** which pests are the most troublesome.
- **Understand** which management strategies are most successful.
- **Develop** meaningful research projects and educational programs.

This **small** amount of time can have a **big** impact in the future.

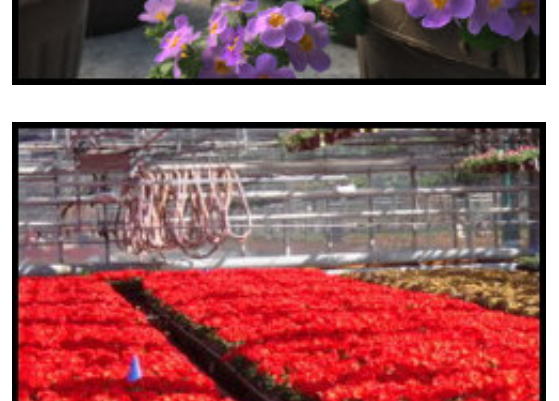
This is intended for **anyone who participates in the pest management decision process**.

Survey takes about **5 minutes (or less!)**



[Click here for IPM Survey!](#)

MSUE News



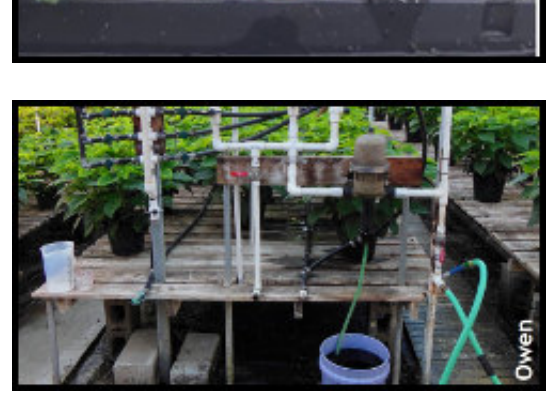
Aquatic plant species prohibited from sale in Michigan
Apr. 19, 2019 | Heidi Lindberg | There are currently 18 prohibited aquatic plant species that pose a threat to the local ecosystem.



Farm transition is a lot like investing – start early!
Apr. 5, 2019 | Ron Goddy and Jon LaPorte | The transitioning of farms to the next generation can be difficult. The best way to make it easier is to start the conversation early.



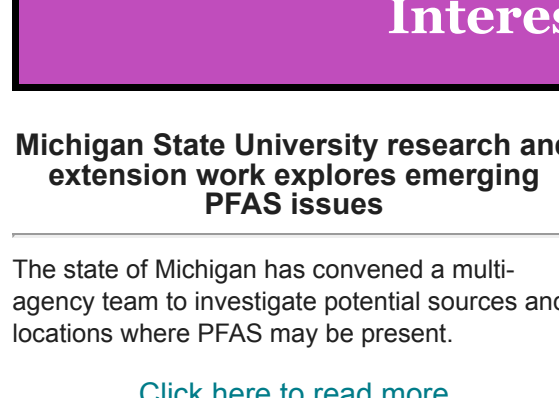
Decorating with plants
Apr. 5, 2019 | Heidi Lindberg | From modern, sleek containers to holiday-themed gifts, plants are key to any home décor style.



SW Michigan greenhouse report – April 2019
Apr. 12, 2019 | Jeremy Jubenville | Warmer temperatures a signal for lively times in the greenhouse.



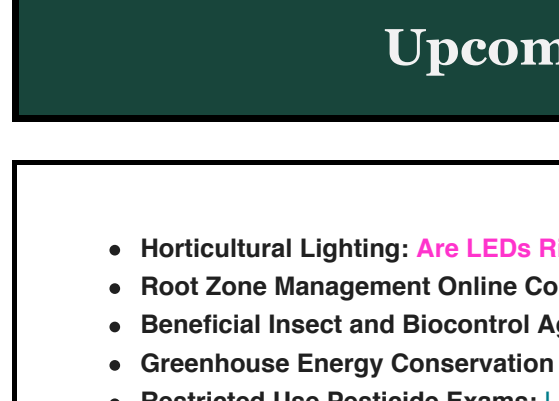
Success with PGRs
March 2019 | Erik Runkle | This article summarizes practices to obtain the best results from your PGR applications.



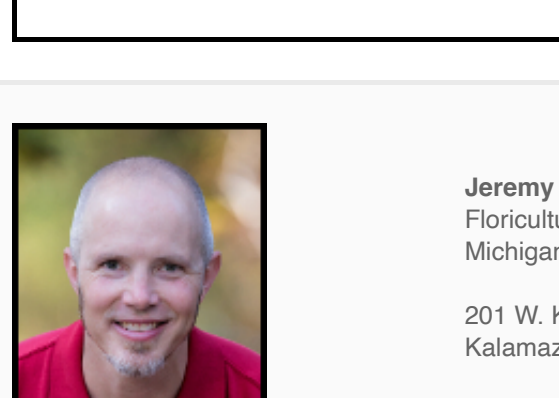
Overview of plant growth regulators for greenhouse production
Feb. 13, 2019 | W. Garrett Owen & Brian Whipker | An overview of each PGR active ingredient and their attributes.



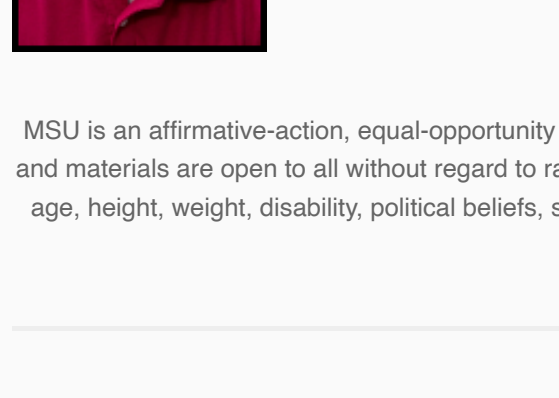
Greenhouse disease and insect management recommendations for 2019
Feb. 6, 2019 | Heidi Lindberg | Updated recommendations from MSU specialists.



Press technique: Determining substrate pH and electrical conductivity of plugs and liners
Jan. 18, 2019 | W. Garrett Owen | Use this technique when working with plugs and liners.



Evaluating the Precision of a Fertilizer Injector by Measuring Electrical Conductivity
Jan. 16, 2019 | Garrett Owen | Performing injector maintenance is a beneficial practice.

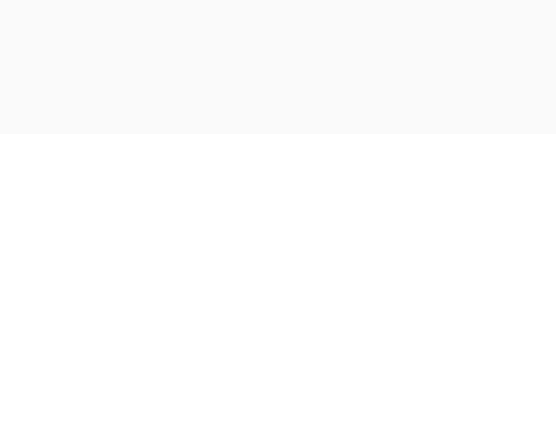


New Worker Protection Standards resources for trainers, workers and handlers
Jan. 3, 2019 | Heidi Lindberg | Employer handbooks, training videos, online courses and Spanish resources on the PERC website.

Interesting Links

Michigan State University research and extension work explores emerging PFAS issues

The state of Michigan has convened a multi-agency team to investigate potential sources and locations where PFAS may be present.
[Click here to read more](#)



If you haven't listened to **Bridget Behe's Marketing Munchies** podcasts, this might be something you'd like to check out.

The past few sessions have been on price-conscious consumers, marketing hemp, and tart cherry marketing.



Upcoming Events

- Horticultural Lighting: **Are LEDs Right for You?**: June 26, 2019. [Registration open!](#)
- Root Zone Management Online Course: Summer Session. [Click here for more info!](#)
- Beneficial Insect and Biocontrol Agent Supplier Tour: **Summer 2019**
- Greenhouse Energy Conservation & Renewable Energy Tour: **Autumn 2019**
- Restricted Use Pesticide Exams: [Locations and Registration](#).



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