

## Presentation Titles and Descriptions

Speaker	Title	Description
<b>Dr. David Tarpy (Keynote)</b>	Quality of Commercial Queens	Our interest in multiple mating by queens asks the logical question about how good commercial queens are. Diminished queen quality and reduced longevity is a major problem experienced by beekeepers, and so this presentation explores the good news and the bad news when it comes to buying queens in the apiculture industry.
	Diagnosing Queen Problems: is it the Queen, the Colony, Both, or Neither?!	Practical advice-based on empirical research-looking at different symptoms and attributing whether or not the problem is the queen's fault. A lesson in showing how we blame the queen way more often than it's actually her fault.
	Honey Bee Genetics and Bee Breeding	This is a fairly technical lecture on how beekeepers can harness the power of genetics for breeding better traits in their bees. Essential for anyone interested in taking their queen rearing to the next level.
	Coming Out of Winter	Early spring is not only the most tenuous time for colonies and beekeepers, it is a very busy time for the bees. Understanding the biology of the bees during this time helps beekeepers minimize winter losses, maximize honey production, and succeed in the following year.
<b>Karee Beck</b>	Beeswax Candle Making	Karee will discuss wax preparation and talk about the process for making candles with silicone molds. She will have equipment on hand to demonstrate her technique.
<b>Mike Connor</b>	Tree and Shrubs as Resources for Honeybees	Trees are the largest source of pollen and nectar for pollinators throughout the Great Lakes region. While pollinator gardens and flower plantings are important to our Native bees, our domesticated honey bees require much more. Honeybees need the massive resources provided by trees for spring build-up, for

		population growth, and for a honey crop. This talk will cover the major tree and shrub species that are vital to our bees, as well as a brief Primer on how to properly select, plant and care for those trees
<b>Amy Fester</b>	Superb Skin Care Begins With Beeswax	Do you know about your skin care's ingredients? Are you applying natural, safe, and beneficial creams on your body? Even many upscale health and beauty businesses boast about including products of the hive in their skincare. Come learn how to create your own "nutrition for the skin", utilizing beeswax.
<b>Peggy Garnes</b>	Backyard Queen Rearing	It's time to raise your own queens for free: local survivor stock at your fingertips.
	How to Make Money With Honey	Let's look at more honey uses to cash in with at home stands, Farmer's Market, and County Fair.
<b>Zachary Huang</b>	Bee Behavior	Zachary will show videos of various honey bee behaviors, which includes common ones such as waggle dance and vibration dance, but also other behaviors that are rarely seen, such as stop signal and tremble dance. He will also interpret a duet of honey bee queens singing to each other. He will also show videos of honey bees swimming.
<b>Charlotte Hubbard</b>	Way Forward	A review of best practices and common pitfalls to help prepare you for successful early-stage beekeeping.
<b>Cecilia Infante</b>	Frontiers in Apitherapy: The history, science, and therapeutic promise of psilocybin-infused Blue Honey	Honey and psilocybe (magic mushrooms) have been used for their healing properties for thousands of years. But only recently, in 2018-2019, did a national movement begin to decriminalize the use of magic mushrooms and research their potential to treat substance-use disorders, depression and anxiety, PTSD, and cancer-related existential distress. Simultaneously, the medicinal properties of honey—particularly against Covid 19—accelerated research into this functional food's healing benefits. This presentation will explore the history, science, and therapeutic promise of psilocybin-infused honey, known as Blue Honey. I will also review the processes of making this product at home.

<b>Adam Ingrao</b>	Producing Quality Nucs for Profit on a Small Scale	Nuc production is an important part of developing a sustainable local bee supply that does not rely on the importation of bees to replace annual losses. In this session, we will discuss the ins and outs of nuc production for beekeepers under 100 colonies. There will be a special focus on development, management, costs, quality control, time commitment, profit margins, and customer expectations.
<b>Nick Kaminski</b>	From Hobby to Commercial: Lessons Learned	A collection of lessons over a 10-year period on a journey to become a commercial beekeeper. This talk is an in-depth look at the hidden cost of expansion and the challenges of running a commercial apiary.
	Beekeeping in the Black: Revenue Streams of the Hive.	Beekeeping can be an expensive hobby, ever wonder how your hives can make money for you? This talk explores revenue streams from the hobbyist to commercial beekeeper.
<b>Don Lam</b>	Diseases and Pests	An overview of the diseases and pests a beekeeper may encounter and how to manage them.
<b>Jan Lawson</b>	The First Two Months	An overview on preparing for bees arrival, installation, and key initial activities and checks for about the first two months of beekeeping.
<b>Janet Macunovich</b>	Design and Care for Pollinator Gardens	Smart and ecologically aware gardeners know to treasure the insects that pollinate flowers. Here's how to design and maintain a landscape to attract and protect these vital players.
	Bio-Logical Gardening: Beauty without pesticides"	Interested in greener and pollinator-friendly ways to control insects, disease and other pests in a garden? Join us to learn about non-chemical approaches in agriculture and horticulture and how to adapt these tactics to specific problems in your garden.
<b>Megan Mahoney</b>		

<b>Meghan Milbrath</b>	Rules and Regulations in MI Beekeeping	Does Michigan require inspections? What is needed for a honey house license? Do you need a honey house license? Is honey a cottage food? Can I use the term raw on my label? How about organic? Who is covered under right to farm? In this talk we will answer these questions and more, and will go over what is required and what is recommended in Michigan Beekeeping.
	Queen Rearing	
<b>Jason Towers</b>	Bee Biology	Understanding basic bee biology is key to success. Jason will review lifecycle, roles, castes and other concepts, explaining why these are critical to keeping bees successfully.
<b>Jenna Walters</b>	The Consequences of Extreme Heat Stress on Blueberries and Bees	Extreme heat events pose a major threat to plant-pollinator interactions, but the full effects are not well understood. To better understand the effect of heat stress on bees, we conducted a no-choice field cage study with <i>Osmia lignaria</i> females who were provided blooming blueberry, phacelia, and clover plants that had been recently exposed to either extreme heat (37.5°C for 4 h) or normal temperatures (25°C for 4 h). Females that were provided only heat exposed plants produced significantly fewer offspring than females provided non-stressed plants. Of the offspring produced in cages with heat-stressed plants, larval survival was significantly lower compared to those that visited flowers of plants exposed to normal temperatures. Results from this research highlight how extreme heat can influence both sides of plant-pollinator interactions, with compounding influence on pollination.
<b>Gordon Wardell</b>	Apiculture at MSU 40 years ago	
<b>Preston Zale</b>	This Keeping of Bees	An overview of the first year of beekeeping; outlining what to expect in terms of time, cost, equipment needs and other challenges.