

## TOGA Classes for Pick TN Conference 2018

### **Tradd Cotter:**

#### **2 hour session: Four Easy Ways to Grow Mushrooms at Home and on the Farm**

Tradd Cotter

If you think growing mushrooms is too complicated, here's your chance to see how easy and rewarding it can be. This workshop will get you growing, and you'll leave understanding the best ways to cultivate delicious mushrooms at home or on your farm. You'll learn about inexpensive start-up options for beginners, and many commercial ideas to expand on. This class will energize your efforts and maximize your production! Topics include: life cycle of fungi; mushroom behavior and intuitive growing; choosing, buying, and storing spawn; woodland mushroom farming (logs, wood chips, and composts); indoor production (small and large scale); converting existing structures into grow rooms (barns, chicken houses, storage containers); marketing your mushrooms (trends, demand, strategies); organic pest management; alternative product development (powders, extracts, compost

#### **1 hour session: Mushrooms, Molds and Mycorrhizae**

Tradd Cotter

Come learn how to braid mushrooms and other fungi into almost every aspect of your coexistence with this strategy guide for cultivating and extracting medicinal mushrooms, creating your own mycorrhizae for seed starting mixes, recycling home and farm waste, biological pest control and easy steps for cleaning contaminated soil and water. Broad in scope yet easy for beginners and experienced mushroom folks alike to create harmony and many levels of symbiosis at your farm or homestead.

### **Malachias Gaskin:**

#### **A Warrior's Garden**

**Malachias Gaskin, Author, Veteran, CEO**

This workshop focuses on self-healing with those who suffer from PTSD, depression, anxiety, or other mental health disorders with a focus on trauma.

A Warrior's Garden sits on top of three main pillars, Faith, Music, and Gardening with an unlimited amount of secondary pillars that are directed by the people involved helping to tailor it to them.

Our mission is to offer an environment where Veterans, First Responders, their families, or just people who want to know more about PTSD can learn and develop healthy coping mechanisms. This provides the ability to learn more about how to mitigate their symptoms (triggers) and develop healthy coping mechanisms that will allow for positive growth and interaction with their families and communities.

### **Annette Wzelaki:**

#### **Organic Certification- It May Be Easier Than You Think!?'**

In this session, we will cover choosing a certifier, the requirements for organic certification, writing your organic systems plan, the organic certification cost-share program and more.

#### **Finding a Time and Place for Cover Crops in Your Tunnel**

The use of cover crops is an integral part of sustainable field cropping systems, with well-documented benefits to soil health, pathogen suppression, and future crop yields. However, cover crops have been utilized to a lesser extent in year-round, intensive cropping systems such as high tunnels. This is due to both biophysical constraints in these systems, such as short windows for non-cash crops, as well as economic constraints, such as potential lost revenue from cash crops sacrificed by growing cover (non-cash) crops. This situation presents a set of trade-offs common to sustainable agriculture systems – balancing production with other ecosystem services enhanced by conservation practices that take land temporarily out of cash crop production. In the

Southeast, tunnels afford producers the ability to extend warm-season crops approximately one month earlier and later, and allow production of cool-season crops throughout the winter months. Although this may increase the availability of locally-produced foods, the intensity of these production systems leave little time for integrating cover crops and/or fallow periods typically associated with sustainable agriculture practices. In this session, we will focus on the trade-offs discussed above through evaluating the economic costs and ecosystem service benefits of cover crops in tomato high tunnel rotations. In a multistate field experiment we have been integrating cover crop treatments into a spring-planted tomato production system on research farms in KY and TN. Ecosystem services evaluated include soil parameters associated with soil health, nitrogen leaching, weed seed bank management, and yields. Economic parameters will include input costs and returns in both standard and cover crop-based rotations, as well as opportunity costs in cover crop rotations. We are also identifying novel cover crops for high tunnels.

**Cindy Shapton:**

### **The Homestead Garden, Growing Plants with a Purpose**

By Cindy Shapton aka, the Cracked Pot Gardener

With more and more people wanting to grow organic food and medicine in their backyards, choosing the right plants is essential...who has time to weed around plants that don't contribute to your family, critters or garden? Lets dig in to talk about some real contenders for the garden or as I like to call them, plants with a purpose. Most of us are familiar with a kitchen garden where one grows food to eat, herbs to spice up a meal, and even flowers to set the atmosphere at the dinner table. A homestead garden goes a step further to help heal and nourish the gardener and his or her family along with the livestock, all while maintaining balance in the ongoing battle between good and evil bugs and keeping the pollinators well fed.

Whether you have ¼ acre or hundreds of acres or a few containers on the patio, you can obtain a garden with plants that help you move toward a healthy and more sustainable lifestyle.

### **Grow Herbs for Value Added Products**

Cindy Shapton

Thinking of trying your hand at farming but want to start small? Or, looking for some value added product ideas to help supplement your income? Join me as we talk about my favorite multi-faceted plants and how to capitalize on them.

I will share with you some of my 30 plus years (did I say that out loud?) of herbal experience to help shed some light on this interesting subject. Grandpa (mine and yours) always said, "don't keep all your eggs in one basket". I think he and grandma knew about value added products grown on the farm.

**Zena Clardy, Ph.D.:**

### **"Growing International Vegetables for Market, Nutrition and Health"**

Arvazena Clardy, Ph.D.

Tennessee has a growing number of International citizens from various countries from around the world, now residing in the Nashville and surrounding counties. They desire their traditional vegetables which are not grown in Tennessee. Nashville has several International grocery stores, these stores ship in produce from out of the county, therefore many of these vegetables are past their recommended shelf life. The local groceries and farmers markets do not carry these desired fruits and vegetables, therefore creating a market for these vegetables.

Bitter Melon and Bottle Gourd have been identified to contain medicinal properties for assisting with reducing inflammation, reduction of blood pressure, provide anti-anxiety effects and diabetes prevention in some individuals who consumer these vegetables.

Goals and objectives of the research: (1) Evaluating International Vegetables for successful growth and production in Tennessee; (2) Developing and Exploring Alternative Crops for Small Producers in Tennessee; and (3) Evaluation of Bottle Gourd, Bitter Melon and Tinda for medicinal and for obesity prevention.

**Dr. Dilip Nandwani and Roy Bullock:**

**Weed Management in Organic Vegetable Production**

Presenters: Dr (s). Dilip Nandwani and Roy Bullock, College of Agriculture, Tennessee State University

Weeds are a big challenge in organic vegetable production. Controlling weeds in organic vegetable systems requires the use of many techniques and strategies. This presentation talks about problem avoidance, preventive strategies, managing the weeds, weed suppression with mulches, cover crops, thermal weed management, alternative herbicides etc.

**Dr. Dilip Nandwani and Debra Lockard:**

**Urban Agriculture: Vertical Farming**

Presenters: Dr. Dilip Nandwani, Associate Professor, College of Agriculture, Tennessee State University and Debra Lockard, Producer, Glimp, TN

Urban Agriculture is gaining importance world-wide and in U.S. Nashville is growing and land is limited in urban settings for growing fresh food locally. **Vertical farming** is the practice of producing food in vertically stacked layers, vertically inclined surfaces and/or integrated in other structures. The modern idea of **vertical farming** uses controlled-environment agriculture (CEA) technology, where all environmental factors can be controlled. In this presentation, speaker will discuss about organic vertical gardening system installed at the Organic farm, Tennessee State University. Topics will be covered on installation, potting media, supplies and materials, crops grown in the vertical system, nutrients etc.

**Dr. David Lockwood:**

**Caneberry Production: An Opportunity for Tennessee Farmers**

**Dr. David Lockwood**

Blackberries and raspberries are becoming increasingly sought after by consumers. Production of these crops, especially blackberries, offers some real opportunities for Tennessee growers. The interval between crop establishment and first production and full production is very short compared to most other fruit crops. Recently released varieties of thornless blackberries offer high yields of good quality fruit and plants that are much more worker-friendly. While they are not free of insect or disease problems, the list of them is much smaller than for most other fruit crops and the options for their control is constantly improving. Caneberry production will be explored beginning with site selection and progressing through planting, training, fertilization, pruning and pest control production in mature plantings.

**Grafting Fruit and Nut Crops**

**Dr. David Lockwood**

Grafting is a perfect example of the combination of science and art. A pecan grower and nurseryman that I respected immensely maintained that grafting was something any 20-year-old with 40 years of experience could do. The reason fruit trees, nut trees and vines are often grafted are manifold, ranging from plant size control, earliness of bearing, insect and disease resistance, adaptability to various soil conditions and more. These points will be discussed along with how to graft, when to graft and caring for the grafted plant. Demonstrations of some of the more common types of grafting that can be done while plants are dormant will be demonstrated.

**Megan Roberts:**

**Successful Heritage Poultry Production**

This course will cover the finer points of developing a successful heritage poultry operation. We will discuss breed selection, breeding and hatching, production models, processing, and marketing. The strategies discussed are adaptable to chickens, turkeys and water fowl. Designed for the diverse small farm, the course is geared towards commercial pasture-based poultry producers.

**Sequatchie Cove Farm Story**

Bill Keener

**Small Tool Implementation**

Bob Due

Dr. Jason Dekoff:

Soil Health

Dr. Jason Dekoff

