

# A Hands-On Workshop Production and Processing of Oil Crops for Biofuel & Other Value Added Products

**Presented by Biofuels Expert C. David Thornton**

Madren Conference Center  
240 Madren Center Dr.  
Clemson University  
August 14, 2014  
9 AM – 4 PM

To be successful, small-scale farmers must find ways to reduce operating costs and identify new sources of revenue to give them a competitive edge in the marketplace. Production of crops for biofuel combined with the added value of their byproducts can help offset the increasing costs of petroleum based products, improve farm profitability and reduce environmental impact. Workshop participants will learn about oil crops such as sunflower, brassicas (canola, rapeseed, mustards, radish and camelina) and black soldier fly larvae. There will be discussion and demonstration of added-value processing of crops into biofuel, animal feed and food-grade oil. Demonstrations will take place at the nearby Clemson University Cherry Crossing Research Center and Mobile Biofuels Lab. There participants will observe operation of an oilseed press and biodiesel production equipment and tour the Black Soldier Fly composting facility. Participants will have the opportunity to help make a batch of biodiesel and take samples of the products home.

## **ABOUT THE INSTRUCTOR**

C. David Thornton is a biofuels expert and Composting Facilities Manager with the Recycling Program at Clemson University. He is in demand as an expert speaker on biofuels and on-farm energy systems at venues such as the Carolina Farm Stewardship Association Conference and the Organic Growers School. While at Clemson, David has managed research projects on production of biofuels from algae and biodiesel production. He also managed a program to produce biofuel for campus fleet vehicles from waste oils, algal oils, and yeast oils as part of the campus initiative for Net Zero emissions. Before coming to Clemson, David served as the Design Build Department Manager for Piedmont Biofuels located in Pittsboro, NC.

## **REGISTRATION**

The cost to participate is \$12 for SC Extension Agents and Personnel and \$35 for all other participants. Registration includes lunch at Seasons Restaurant. To register, please visit: [https://secure.touchnet.net/C20569 us.../.../product\\_detail.jsp...](https://secure.touchnet.net/C20569_us.../.../product_detail.jsp...)

## **AGENDA**

- 8:40 – 9:00 Registration (coffee and refreshments provided)
- 9:00 – 9:15 Welcome and Introduction
- 9:15 – 11:00 Production and processing of oilseed crops for the Southeast (Crops and varieties, yields, harvesting methods/Processing methods)  
Introduction to Black Soldier Fly: Production and processing for oil and animal feed
- 11:00 – 11:20 Transport to Cherry Crossing Research Center
- 11:20 – 11:45 Introduction to oilseed and biodiesel processing equipment
- 11:45 – 12:20 Oilseed press demonstration
- 12:20 – 1:20 Transport back to Madren Conference Center for lunch (provided)
- 1:20 – 1:30 Transport to Recycling Center and Mobile Biofuels Lab for afternoon session
- 1:30 – 3:00 Biodiesel production demonstration; hands-on session on making biodiesel
- 3:00 – 3:30 Tour of Composting Facility including the Black Soldier Fly system
- 3:30 – 4:00 Demonstration; processing BSF larvae into oil and animal feed
- 4:00 Adjourn

*Sponsored by the Clemson University Sustainable Agriculture Program, Clemson University Recycling Services and Clemson University Biosystems Engineering Program. Supported in part by a grant from the Southern Region SARE Professional Development Program*