

## Registration and Fee

**Deadline:** Pre-registration is required by Friday, April 19, 2013.

**Registration fee:** There is no registration fee to attend this workshop.

Transportation, food and lodging expenses will be covered for Missouri residents. Non-Missouri participants will be responsible for their lodging and transportation expenses.

**Please fill out this form and mail it to Cindy Thompson c/o Lincoln University Cooperative Research, 110 Foster Hall, 904 Chestnut St., Jefferson City, MO 65101 by Friday, April 19, 2013.**

Name: \_\_\_\_\_

Affiliation: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

E- mail: \_\_\_\_\_

Travel (roundtrip miles): \_\_\_\_\_

Double room accommodation for two nights will be available for those who will drive a distance in excess of 120 miles one way.

Are you planning to stay in a hotel?  
Yes      No      (circle one)

If yes, how many nights will you stay? \_\_\_\_\_

Name of preferred room-mate: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



## Cooperative Research

**Dr. Frieda Eivazi, Interim Dean**  
College of Agricultural and Natural Sciences

**Dr. John Yang, Interim Head**  
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and Associate Research Director  
Lincoln University Cooperative Research  
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**For more information call or email:**

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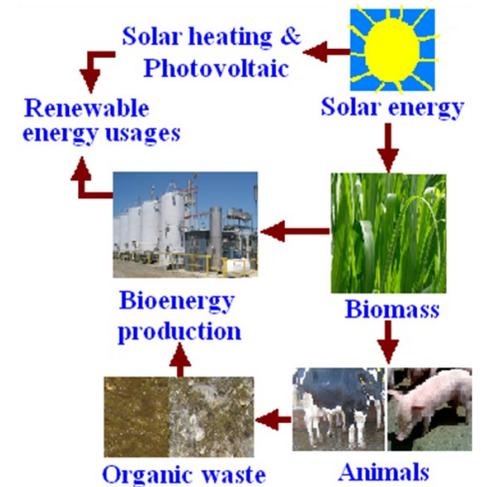
Cindy Thompson  
Phone: (573) 681-5967  
Fax: (573) 681-5955  
ThompsonC@LincolnU.edu

Please let us know if you need special accommodations.

<http://www.lincolnu.edu/web/cooperative-research/environmental-science>



## Alternative Energy Production and Utilization on Farms Workshop



**Tuesday, May 7  
through Thursday,  
May 9, 2013**

**George Washington  
Carver Farm  
3804 Bald Hill Road,  
Jefferson City**



### Workshop Goals:

- Provide an extensive educational program on the utilization of solar energy and the production and utilization of biogas on the farm. The application of wind energy on farms will also be covered
- Provide hands-on training on sizing anaerobic digesters and solar energy systems, and operating and monitoring the performance of an anaerobic digester and solar energy systems
- Take field trips to the MU Bradford research centre and LU Busby farm to view renewable energy projects.

### Intended Audience:

This is a 'train-the-trainer' workshop. This In-Service Education (ISE) is meant for extension educators, personnel from state and federal agencies, non-governmental organizations with outreach responsibilities, and high school agriculture teachers.

### Selected Topics to Be Covered

- Renewable energy and sustainability
- Biochemical concepts of anaerobic digestion
- Different designs of anaerobic digesters
- Potential uses of digested materials
- Basics of solar energy systems
- Algae production
- Designing and sizing of solar energy systems
- Biodiesel
- Pyrolysis and biochar production
- Application of solar energy system on farms
- Integration of solar heating systems in anaerobic digesters
- Economics of biogas and solar energy systems
- Applications of wind energy on farms



### Keynote Speakers:

- Dr. David Brune, Extension Ag Engineering, University of Missouri
- Mr. Charles Gould, Extension Educator-Agricultural Bioenergy & On-farm Energy Efficiency, Michigan State University

### Program Outcome and Evaluation

It is expected that the participants will share knowledge gained at the workshop with their clients by organizing workshops and webinars, or writing articles, etc. The workshop attendees will also participate in two surveys to be conducted, one six months after the workshop, the other one year later. The workshop attendees will also participate in a one-day wrap up meeting that will be held 18 months from the end the workshop in order to share their experiences on how they transferred the knowledge they gained in the workshop to their clients.



Sponsorship is provided by Lincoln University, the North Central Region of Sustainable Agriculture Research and Education Program, University of Missouri-Extension and United States Department of Agriculture, National Institute of Food and Agriculture.



United States  
Department of  
Agriculture

National Institute  
of Food and  
Agriculture