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Final project report submitted to the Organic Farming Research Foundation:

**Project Title:**

**Fundamentals of Organic Farming and Gardening:  
An Instructor's Guide**

**Coordinator:**

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**Collaborators:**

Lynn Pugh, Curriculum Project Coordinator, Cane Creek Farm, Cumming, GA  
Karen Smith, Daniel Pearson, Kristina Lefever, curriculum reviewers

**OFRF funding:** \$13,400, awarded Fall 2007

**Funding category:** Education & Outreach

**Project period:** 2008-2009

**Report submitted:** June 2009. 8 pages.

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ORGANIC  
FARMING  
RESEARCH  
FOUNDATION

## INTRODUCTION & PROJECT SUMMARY

The ORGANIC FARMING CURRICULUM PROJECT was successful in creating an improved and updated edition of the *Fundamentals of Organic Farming and Gardening, An Instructor's Guide* curriculum with an emphasis on the adult learner and more flexibility for use in different course settings. (See curriculum enclosed.)

In 2006, Georgia Organics produced a new curriculum, designed for use by extension agents, master gardeners and high school teachers. Surprisingly, there have been few existing general teaching tools available for agricultural instructors in the United States. The project goal was to create a basic, user-friendly, organic curriculum for agricultural educators to instruct farmers, vocational agricultural students and gardeners. The science-based curriculum, produced on a CD and funded by Southern SARE, covered many topics including: soils, soil biology, soil management, plant biology, crop management, composting, marketing, organic certification, instructions for setting up an organic demonstration bed and farmer profile videos. A design team of agricultural professionals, farmers, scientists and writers was enlisted to develop the project over a two-year period.



**Organic Farming Curriculum Class Spring 2009**

The curriculum proved to be tremendously popular and successful. Instructors across the nation placed orders, and Georgia Organics distributed almost 1,000 copies in a year - our entire original supply. Numerous workshops were held in conjunction with the curriculum's release, and the entire curriculum was taught on-farm over eight alternating Saturdays during the winter '07 and then again in the fall of 07,

in Georgia. The curriculum was also added to the Georgia

Department of Education's Agricultural Education Curriculum CD, distributed annually to all high school agriculture and science educators in the state.

## OBJECTIVES STATEMENT

Although this curriculum filled a large void in the South and in the U.S., its original goal was to enlighten both adults and high school student to foster organic farming and gardening. Based on demand and evaluative feedback, it became apparent that the need for adult instruction in organic farming superseded the need for instruction of younger audiences, thus a 2<sup>nd</sup> revised edition was proposed and funded by the Organic Farming Research Foundation. The objectives of this revision project were as follows:

### Objectives:

- Reposition the curriculum to sharpen its focus on adult instruction in organic farming while retaining usability for high school instructors;
- Edit, amend and enhance content and instructional tools and improve adaptability and offerings for both short and long course formats;
- Reproduce the revised curriculum in a DVD format and add a free downloadable version online;
- Advertise, promote and redistribute the curriculum to key instructors and stakeholders in Georgia, the South and across the nation; and
- Evaluate the curriculum's use, content and effectiveness for future revisions.

## MATERIALS & METHODS

Lynn Pugh, a farmer and Georgia Organics curriculum coordinator, used her experience in teaching this curriculum to adults to shape new presentations and activities. Lynn taught the curriculum six separate times from 2007-2009 in a course offered through Georgia Organics. The course consistently sold out and was organized over a course of eight alternating Saturdays and featured both classroom and on-farm activities. Evaluations were conducted at the end of the course with all participants. Useful and popular activities taught to adults, as well as requested topics from students, were included in the revised version.



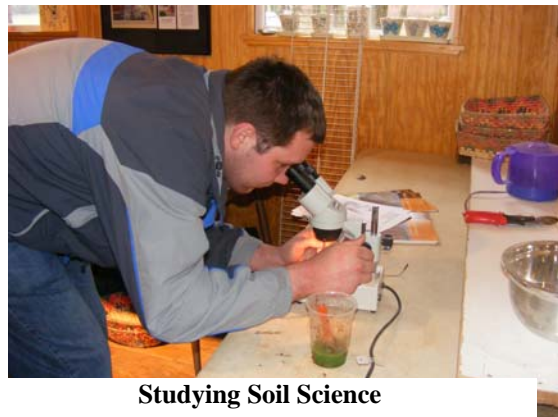
**Food Web Activity**

The first big curriculum improvement was in the development of new PowerPoint presentations for each unit, incorporating highlights, illustrations, photographs, and teacher notes to improve and update the information from the existing units. A section on crop rotation with an explanation and activities to help students plan a crop rotation was one of the significant additions. Several tables such as plants that attract beneficial

insects and a table on companion crops were added. All of the lesson plans were then rewritten with references to the appropriate PowerPoint offerings.

A new introductory unit on organics was also prepared with materials from Georgia Organics, ATTRA, and other resources to reflect recent data and trends in organic agriculture. This introductory unit, prepared by the Georgia Organics staff, presents the case for the need for more instruction in organic farming as well as updating the status of organic food and production within the context of the larger agricultural sector. Brief statements and pictures of young organic farmers from Georgia were added to increase the interest level and provide motivation for good instruction.

The third improvement was to develop materials and presentations that can be extracted for one to two hour sessions from the units. Three presentations were developed focused on soils, insect management and composting. These stand-alone presentations were developed with materials from the curriculum. Teacher notes were included to facilitate the transmission of accurate information.



**Studying Soil Science**

All of the curriculum materials were reviewed by two reviewers who provided feedback and comments that were then incorporated into the curriculum. The reviewers, Karen Smith and Daniel Parson, were



**Students Learn to Build a Hoop House**

experienced educators and active in the organic farming movement. A third evaluator was not able to help us as originally intended; however, we substituted a third editorial reviewer, Kristina Lefever, who is a farmer and longtime volunteer of Georgia Organics. Kristina has also taken Lynn's course, so she provided additional input from a student perspective. Collectively, the three reviewers' input was invaluable in reshaping the curriculum and providing resources in a convenient format for instruction about organic farming.

Here is an example of the type of feedback that was offered:

*The curriculum is well organized and covers the fundamentals that a beginning farmer would need to know. Tables of beneficial plants would be helpful in the crop management unit where you are talking about plants that attract beneficial insects.*

*Reviewer of Curriculum revision*



The curriculum was produced and printed in February 2009 and was available in time for the Georgia Organics conference which was attended by 1,100 participants. The curriculum was produced on a CD-Rom instead of a DVD format, as originally intended, because we were still able to fit all the materials on the CD-Rom. Georgia Organics printed 1,000 copies of the curriculum on disk.



**Students Learn to Make Garlic Spray**

Classes using the revised curriculum materials were held in winter '08, fall '08, winter '09, and spring '09. Participants in the fall class were Georgia Organics farmer mentees, the winter classes were composed of gardeners, master gardeners, and future and beginning farmers ranging in age from early-20s to mid-60s. An all-day class was also held using the short presentations in the spring of '09 to a group of gardeners and prospective farmers. Evaluations were done by all of these groups. This feedback informed the

revisions that were made in the curriculum. Here are a couple examples of favorable overall feedback received.

*I felt prepared on so many different levels upon completion of the course!*  
- Winter 09 participant

*Having completed the master gardener training and attempted organic gardening for years, I wasn't sure I would learn a lot, but I did. I now know how to make use of the information I had gathered in my head.*

*Student, Winter 09*

## **OUTREACH**

Georgia Organics leveraged internal and external communication mediums to promote the curriculum and utilized its partnership to integrate the curriculum into existing education programs. The following is a summary of these outreach efforts:

### Georgia Organics Communication – Georgia

Organics made an initial announcement about the revised curriculum in the January online newsletter (distribution 10,000 recipients) and in the program update of the winter 2009 newsletter (distribution 15,000). That was followed up with a full article on the curriculum in the Spring Newsletter (see Appendix A) and the curriculum's debut at the



**Students Plant Seedlings**

Georgia Organics conference (attendance 1,100). A reference on the organization's Facebook page was also posted to more than 1,300 fans.

Georgia Department of Education – Georgia Organics secured the integration of the revised curriculum to be integrated in the 2009-2010 Georgia Department of Education's Agricultural Education Curriculum CD, distributed to every agriculture education teacher in Georgia. In July, 2009, 21 agriculture education teachers will attend a three-day educational workshop that will offer an overview of the curriculum. (See Appendix B for a copy of the agenda and list of teachers from around the state.)

Course and Class Offerings – Lynn Pugh taught the revised curriculum over the fall 2008 and winter 2009 to adults using the new PowerPoint presentations and activities. A class was also taught in the spring 2009 using the short PowerPoint presentation to a group of 26 gardeners and aspiring farmers.



**Former Student Prepares for Market**

Cooperative Extension – The first meeting of a new Organic Production Team of cooperative extension agents acting as district specialists was held in May with our partners at the University of Georgia. All attendees and agents received a copy of the revised curriculum. In addition, an announcement about the curriculum was sent through the communication network of cooperative extension.

Three CD's have been ordered by county extension agents to date.

Media – A press release on the curriculum (see Appendix C) was distributed in June 2009 and Georgia Organics will continue to pursue media stories to publicize the revisions. The media hook on a revision has been a bit tougher to pitch versus the curriculum's original launch in 2006.

Online & Web-Based Activity – Georgia Organics has uploaded the curriculum to its website. The organization is going through a major web renovation in the fall of 2009 and has already included the curriculum and navigability to the curriculum as a key objective. <http://www.georgiaorganics.org/curriculum/index.html>

Environmental Education in Georgia will be updating their website devoted to the curriculum with new dates this summer.

<http://www.eeingeorgia.org/resource/about.aspx?s=44476.0.0.4863>

## **PROJECT RESULTS & CONCLUSIONS**

Georgia Organics accomplished its key goal in creating a flexible and enhanced organic farming and gardening curriculum that widened its focus for adult and high school audiences. The revisions allow a user to utilize the entire curriculum or extract relevant components for pointed use. Participant feedback from the in-depth classes show consistent high marks for the quality of the material in the curriculum. Feedback from agriculture teachers using the curriculum has been positive, especially about the ease of use for the instructor. Because the curriculum has been taught a total of six times by curriculum developer Lynn Pugh, Georgia Organics feels it has had strong input from students and a short feedback loop for direct implementation. Georgia Organics will continue to monitor additional feedback since the organization's production timeline was pushed back six months, cutting into valuable evaluation time. The entire staff is documenting all requests for curriculum for additional follow-up at a later time.

The curriculum is already being utilized by the Georgia Department of Education and University of Georgia and Fort Valley University extension agents through our existing partnerships. Georgia Organics hopes to improve national awareness of the curriculum in the months to come. The curriculum is available to the public for a fee of \$10 (including shipping), but it is also available for free on the Georgia Organics website. The availability will improve greatly with the redevelopment of Georgia Organics website in the Fall of 2009, which will allow for more prominent positioning and navigation.

Georgia Organics is proud to have developed one of the only public curriculums on sustainable farming and gardening in the nation and is grateful to the Organic Farming Research Foundation for the funding to enhance this valuable tool. We look forward to sharing this curriculum with users around the country and leveraging it here in the South to advance "train the trainer" opportunities to foster farmer education.

## Appendix A

### Georgia Organics Newsletter Placement



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### Want to Learn How to Farm Organically? Here's Step 1

An updated and revised version of *Fundamentals of Organic Farming and Gardening: An Instructor's Guide*, is now available for extension agents, master gardeners, high school teachers, and anyone else interested in learning about the organic farming trade.

The science-based curriculum, designed by Lynn Pugh of Cane Creek Farms and produced on a CD-Rom by the Organic Farming Research Foundation, and Southern SARE, covers many topics, including: soils, soil biology, soil management, plant biology, crop management, composting, marketing, organic certification, instructions for setting up an organic demonstration bed and farmer profile videos.

You can get the CD-Rom free if you are a farmer and a member of Georgia Organics. For non-farmers, they are \$5 for Georgia Organics members and \$10 for non-members. Call 678.702.0400 to order.

### Growing Growers

During her presentation at the Glover Family/ Love Is Love Farm in Douglas County on March 19, Kathy Ruhf, co-director of the non-profit organization Land for Good, described successful methods of passing farms from one owner to another. Navigating through the tax, financial, and legal issues are only parts of the complicated processes of farm succession. Access sample lease arrangements and learn more at [www.landforgood.com](http://www.landforgood.com).



Photo By Tom Brodnax



## Appendix B

### GEORGIA DEPARTMENT OF EDUCATION AGRICULTURE EDUCATION FIELD DAYS JULY 7-9, 2009

#### Agenda

#### **July 7: Cane Creek Farms – Cumming, Ga**

9:30 a.m. – 10:00 a.m. Registration, Welcome, Announcements, Introductions Overview of Farm to School: Four C's  
10:00 - 12:00 How to harvest and process farm products  
12:00 – 1:00 p.m. – Working Lunch – CSA  
1:00 - 3:00 p.m. **Overview of the Curriculum Integration of Hands on Activities**

#### **July 8: Decatur, Ga**

10:00 – noon: Gaia Gardens Farm Tour and Hands on Activities  
Noon – 1:00p.m. Working Lunch – Development of School Gardens  
1:00 – 3:30p.m. School Gardens Tour – Montessori, Decatur High School, Oakhurst Elementary  
3:30 – 5:00p.m. Tour of Decatur Farmer's Market and Hands on Activities

#### **July 9: Decatur, Ga**

9:00 – 1:00 : Working Lunch Topic Culinary: Chef Educational Partnerships  
How to prepare and conduct cooking demos and taste test with students  
1:00 - 3:00 p.m. : How to Establish First Farm to School Meeting in Local Community

#### **By August 1: On Site Work: 5 hours**

Teacher will developed agenda and plan of action with established community contacts for first Farm to School advisory meeting with key stakeholders. Agenda must be sent to Erin Coon and DOE Agriculture Education State Staff for verification and certification of professional learning units.

#### Teachers Registered:

- |                                     |                                  |
|-------------------------------------|----------------------------------|
| 1. Lula Curry, Macon                | 12. Steve Cabe, Rabun            |
| 2. Michelle Stephens, Hartwell      | 13. Abby Needham, Loganville     |
| 3. Virgil Blalock, Warner Robbins   | 14. David Warren, Rome           |
| 4. Tim Savelle, Madison             | 15. Nathan Conner, McDonough     |
| 5. Pam Stratton, Athens             | 16. Cheralyn Boettcher, Bonaire  |
| 6. Veronica Sanders, Warner Robbins | 17. Wendy Matteson, Rossville    |
| 7. Sara Clark, Calhoun              | 18. Joe Matteson, Ringgold       |
| 8. Barb Saunders, Gainesville       | 19. Veronica Owens, Marietta     |
| 9. Taylor Ginn, Jefferson           | 20. LuAnn Jones, LaGrange        |
| 10. Jessica Bowden, Perry           | 21. Shannon Lawrence, UGA Intern |
| 11. Joe Green, Marietta             |                                  |

## Appendix C



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### **Sustainable Agriculture - Training the Next Generation**

#### **Georgia Organics Releases Updated Curriculum for Organic Farming Instruction**

ATLANTA – An updated and revised version of “Fundamentals of Organic Farming and Gardening, An Instructor’s Guide,” is now available for extension agents, master gardeners, high school teachers, and anyone else interested in learning about the organics farming trade.

The science-based curriculum covers many topics, including soils, soil biology, soil management, plant biology, crop management, composting, marketing, organic certification, instructions for setting up an organic demonstration bed, and farmer profile videos. The curriculum was produced for CD-Rom by Georgia Organics and designed by Lynn Pugh of Cane Creek Farms. Production of the first and second edition of the curriculum was funded by the Organic Farming Research Foundation and Southern Sustainable Agriculture Research and Education.

Organic food sales have grown an average of 20 percent annually in the last ten years, reaching sales of \$16.7 billion in 2006. Although Georgia is the 5th largest vegetable-producing state with over 10 million acres of farmland, only 3,000 are certified organic.

“A sustainable local food system is critical to the future of Georgia’s health, environment, and economy,” says Georgia Organics Executive Director Alice Rolls. “However, demand for local, sustainable food is outpacing supply, and this is the single largest roadblock Georgia faces in taking full advantage of the growing market opportunities.

“Georgia needs more tools to help agriculture instructors train more farmers to enter the fast-growing organic sector, and this curriculum fills that void” Rolls says.

Georgia Organics members can get the CD-Rom for \$5 for and \$10 for non-members. Call 678.702.0400 to order.

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