

Penn State Sustainable Food Systems Program



STEERING COMMITTEE MEETING

10.3.14

9-11AM, 217 FRB

Insights from a National Survey of Student Farms



Who Grows Your Food? Appalachian Farms

Kirstein Farm
Ray Kirstein has been raising bees since 1995. His farm is located in the beautiful mountains of Black Mountain, North Carolina. His love for raising bees began because of the need to pollinate his apple orchard.

After a few years of visiting beehives from other beekeeper farmers in Buncombe County, Ray decided it was time to begin a bee farm of his own. Today Ray tends to 30 hives, and with all of his hard work he is rewarded with 75 pounds of honey per hive. Ray's wife admits, "It's the best part of raising bees."

If you are interested in beekeeping, Asheville's Beekeeper Association hosts a 7 week winter beekeeping school. For more information call 828-253-5522.

Kirstein Farm
Buncombe County
North Carolina

Who Grows Your Food? Appalachian Farms

Warren Wilson College Farm
Since 1996 students of Warren Wilson College have run and operated the College Farm producing food for its community and the surrounding area. The mission of the College Farm is first and foremost to serve as a robust theater in which the great goals of Warren Wilson's School of Work, Service and Academics can be fully met, as well as serving the College's environmental commitment to sustainability.

The farm crew is made up of about 25 students who have made a commitment to manage 275 acres of mixed crops and livestock and to make an effort to incorporate themselves into the decision making process of the farm. Warren Wilson College uses the farm as an educational tool in which to teach the practices and importance of sustainable agriculture and at the same time keeps a working farm with viable business ethics with viable contributions to the local food economy. We proud that all of the beef served in the Gladstein Cafeteria is raised on the farm.

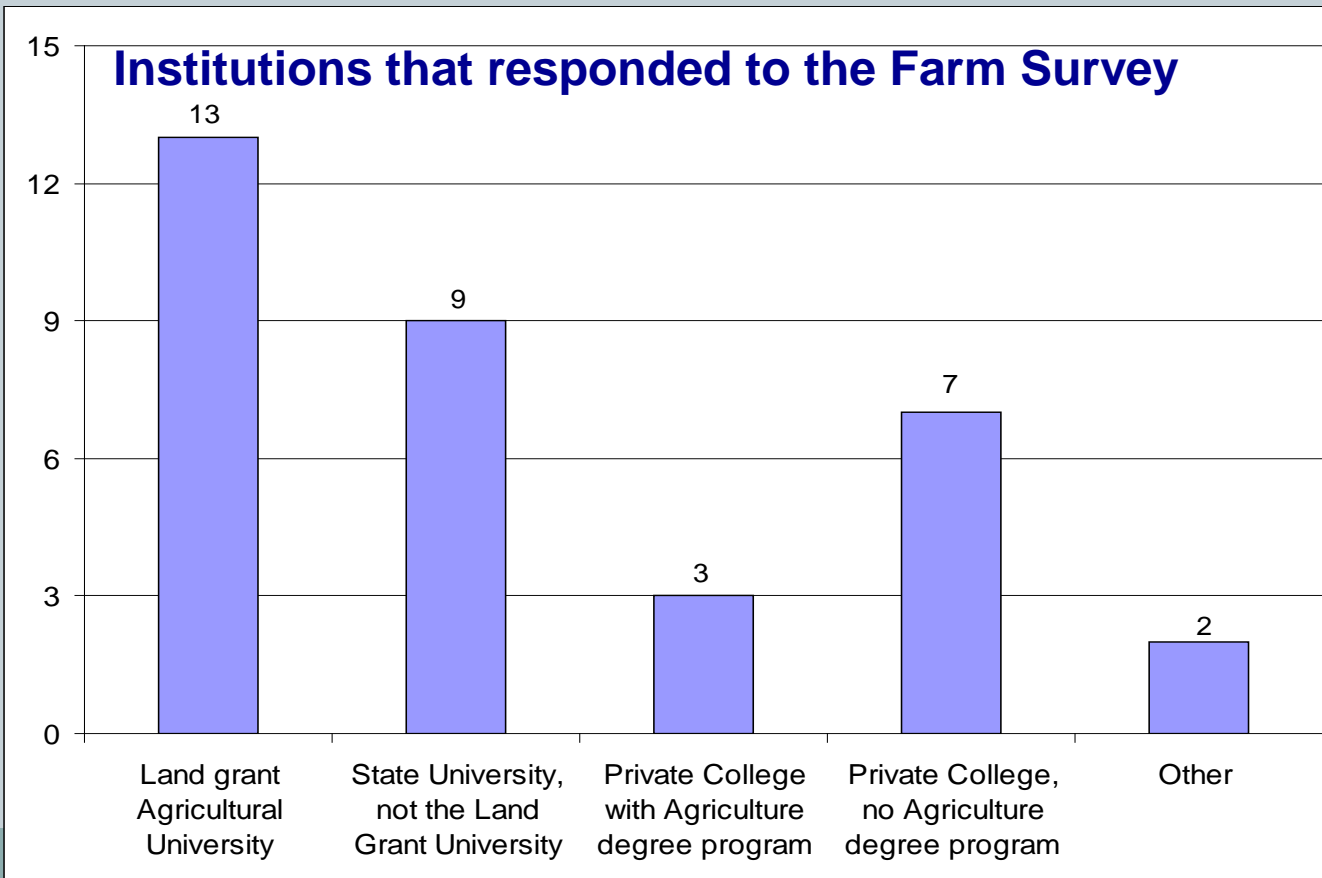
Warren Wilson College Farm
Buncombe County
North Carolina

LOCAL FOOD
Thousands of miles fresher!
AppalachianGrow.org


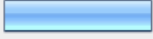
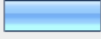
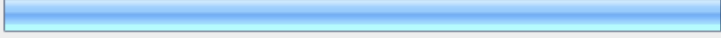
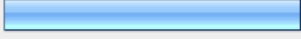
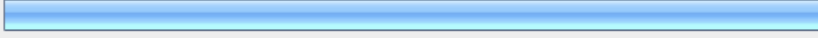


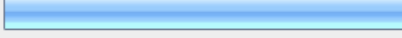
2007 Survey asked open-ended questions about farm activities, educational benefits, challenges & strategies

- surveyed 66 farm managers & 39 instructors

38 farm managers & 19 instructors responded



13. In the last three years, which of the following were produced on the farm? Please check ALL that apply.

		Response Percent	Response Count
agronomic crops - grain, forage, fiber crops etc.		38.2%	13
agroforestry crops		17.7%	6
biofuel crops		11.8%	4
cover crops		85.3%	29
crops that are grazed by livestock		35.3%	12
fruit crops		97.1%	33
vegetable crops		88.2%	30
livestock		38.2%	13
Other (please specify)		47.1%	16
		<i>answered question</i>	34
		<i>skipped question</i>	5

Educational Benefits

Agricultural Knowledge

General Agricultural Knowledge

"(Students) learn that eating is an agricultural act."

"Lifecycle of plants and the interplay between crop health and the given environment as well as constructed biology on the farm"

"Learning to grow seed to table"

Specialized Ag. Know

"Progress from seed to seed selection"

"Economics of operating a small farm (how tight it is)"

"Learning certified organic production practices"

Agricultural Skills

General Agricultural Skills

"General planting and maintaining skills"

"Learning how to grow food"

Specialized Skills

"Observation skills (and) routine health practices for large animals...movement and restraint of large animals"

"Learn appropriate post harvest handling procedures for a variety of crops"

"Irrigation management skills and budget /cash flow development skills"

Alternative Learning Environment

Experiential Education

"Extensive hands on training"

"Practical experience opposed to head knowledge"

"The CSA offers students an excellent opportunity to interact with customers (and) consider the market."

Improved Educational Facility

"Whereas they are often not looking forward to classes, most do so for the farm labs"

Community Experience

"Establish relationships with the farmers in the community"

"Shared work and learning on the UM PEAS farm provides students with a reference point for membership in a positive, healthy learning community"

Service Learning

"Students put gardens in the community..at a women's cooperative, a teen pregnancy home, a juvenile correctional facility, and an elementary school."

Higher Learning

Applied Knowledge

"Translating conceptual organization of farm planning and project execution to applied level"

"See theory applied in the field, especially the intricate relationship between organisms"

"Increased understanding of management and economic theory in practical situations."

Critical Thinking

"Students get to interpret real life farm issues and apply critical thinking skills to"

"Developing diagnostic skills relating to insect, disease and soil fertility issues"

"Students develop critical thinking skills in sustainability tradeoffs"

Problem Solving

"Ability to understand and complete the problem solving and decision making"

"Becoming proactive to problem-solving on the farm versus reactive"

Systems Thinking

"Students learn to think in a systems holistic approach to problem solving"

Systems Understanding

"Understand the whole and how the parts fit together"

"Lifecycle of plants and the interplay between crop health and the given environment, as well as the constructed biology of the farm"

Personal Development

Develop Ownership

"Developing a sense of ownership in a project"

"Learning to take ownership and responsibility in a project not focused on the self"

Confidence

"Being confident that they can accomplish their goals on the farm"

"They gain a lot of self-confidence by actually seeing the fruits of their labor and"

Teamwork

"Learn how to work together as a team to perform tasks"

"They learn how to work together as a team to perform tasks"

Value Development

Ag-Eco

"Land stewardship"

"Learn ways of living in harmony with nature and being constructive members in their community"

Work Ethic

"Development of a strong work ethic"

Student Farm Challenges

Educational and Academic Conflicts with Agricultural Production

Agricultural and Academic Calendar do not Coincide

Balancing Education and Production

"Balancing education with keeping the farm operating."

Class Time-Limits

Labor

"Recruiting and maintaining student labor"

Lack of continuity

"Institutional memory- I am the only constant with the farm"

Scheduling

Time Management

Weather

Funding

From Administration

Land

Equipment

Facility needs

Grant writing is time consuming

Operational budget for technology

Staff

Management

Developing a Certified Organic Program

"Development of a certified organic production system (steep learning curve)"

Management Decisions

"Who makes management decisions"

Time Management

"Managing/Allocating time to a combined program of research, demonstration, and teaching."

Institutional Support

Administration

"University support"

Department

"Gaining acceptance at the department level"

Teaching Challenges

Difficulties Serving Different Student Interests

"Agriculture is a diverse topic and it is hard to always serve the student's interests."

Experiential Learning is Resource Intensive

Building Skill Development

"Engaging people enough with the skills they could learn, but not scaring them away with the amount of work needed to learn and practice the skills."

Lack of Equipment Experience

Lack of Student Interest

Lack of Student Knowledge

"Lack of farm knowledge students are not from farm or ranch background."

Responsibility

"Young students disrespect (for) operational rules"

Systems Learning

"Getting people to understand the work holistically, instead of as a disjoint list of tasks to be done"

Strategies to address Challenges



STRATEGIES TO CHALLENGES

Educational and Academic Conflicts with Agricultural Production

Identify Activities for Academic Months

fall harvest, spring maintenance, schedule on edges of season

Focusing on Priorities and Strategic Planning

focus on education, grow for profit, limit experiments, careful

Strategies to Increase Assistance

student management, ask for support, obtain farm manager, offer

No Success

Funding

Farm Income and Grant Writing

CSA Income, Grant Writing, Fundraising

Administration

Funding from Administration, Establish Endowment

Legislature

"A local farmer that we helped set up in a CSA did go to the legislature this year and got some one-year funding support."

Private Funding

Private Funding, Borrow equipment

No Success

Management

Communication

Sharing Decisions

Experience

"The best strategy for development of an effecient production system is experience; it improves each year."

Institutional Support

Demonstrate Success

Educate the Administration

Build Relationships

No Success

Teaching Challenges

Experience and Learning

give students individual focus, teach general knowledge, dicipline,

Rewards for Involvement

food, fun

Open Activities for Student Population

informal conversations, intense recuritment

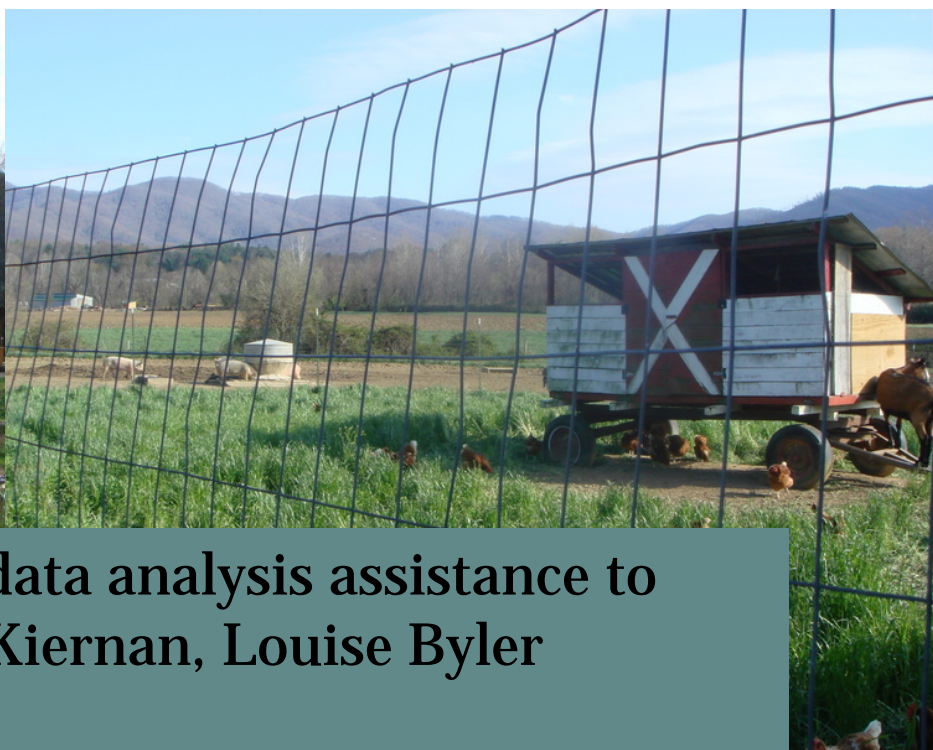
Create Income

"Devise ways for system to help pay for itself (student labor) in a predictable, steady way (e.g., CSA)"

Diversify

weekend workdays, easy projects, projects with different comittment

No Success



Special thanks for survey design & data analysis assistance to Katherine Bullington, Nancy Ellen Kiernan, Louise Byler

Questions: Heather Karsten, Dept. Plant Science

hdk3@psu.edu



Food? an Farms
in College Farm
of Warren Wilson College
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Kirstein Farm
Randolph County
North Carolina

beautiful mountains of Black Mountain, North Carolina. His love for raising bees began because of the need to pollinate his apple orchard.

After a few years of visiting beehives from other beekeeper families in Randolph County, Ray decided it was time to begin a bee farm of his own. Today Ray tends to 30 hives, and with all of his hard work he is rewarded with 75 pounds of honey, per hive. Ray's wife admits, "It's the best part of raising bees."

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Penn State Sustainable Food Systems Initiative



- Need for the initiative
- What's been done so far
- Where do we want to be
- How do we get there

Need for the Initiative



- Meet **STUDENT INTEREST** in experiential learning on a student farm: engage with where our food comes from
- “Prepare students, faculty and staff to be **SUSTAINABILITY LEADERS** in their professional, personal and civic lives” (*Land Grant 2.0*) as health concerns, climate change, urbanization, population growth impact our world
- 61% of prospective students (and 61% of parents) consider **SUSTAINABILITY** when making a decision about attending a university (*Princeton Review 2014*)
- Create **NEW OPPORTUNITIES** in food systems education, research, outreach and practice

THE OHIO STATE UNIVERSITY
STUDENT FARM

Dickinson

COLLEGE FARM



WSU

Organic Farm

DILMUN HILL

CORNELL STUDENT FARM



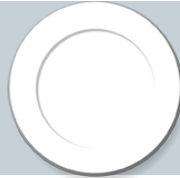
GARDEN CITY HARVEST



MISSOULA - MONTANA



As of 2010, at least 44 universities have student farms



HARVARD

FOOD LAW SOCIETY



sustainable **student** farm
UNIVERSITY OF ILLINOIS

University of Michigan Sustainable Food Program



PURDUE UNIVERSITY

PURDUE AGRICULTURE

THE PURDUE STUDENT FARM



YALE SUSTAINABLE FOOD PROJECT

LOCAL - SUSTAINABLE - HANDS-ON

Center Precedents



- Iowa State Leopold Center
- Michigan State Center for Regional Food Systems
- Johns Hopkins Center for a Livable Future
- University of Vermont Program in Sustainable Food Systems
- UC Santa Cruz Center for Agroecology and Sustainable Food Systems



LEOPOLD CENTER
FOR SUSTAINABLE AGRICULTURE

What's been done so far?



What's been done so far?



- Generating incredible interest and enthusiasm for the initiative! Listserve: 160 students, 135 faculty/staff
 - Tabled and presented at HUB Fair, CAS Fair, LASS, Ag Advocates
- Presentations to leadership in College of Ag and Health & Human Development (next: Arts & Arch; Liberal Arts)
- Two student, two faculty/staff and one collective visioning meeting: 160 attendees
- sites.psu.edu/studentfarm: 211 users, 326 sessions since 8/18



What's been done so far?



- Weekly student meetings, approx. 20 students/week
- Formalizing committees of students, staff and faculty to work on planning and design
- CED capstone, Food Marketing course, Landscape Contracting indep study, Plant Science internship, HRIM indep study, CivCom capstone, LArch MS thesis, Rural Soc PhD focused on the initiative (and lots of volunteers)
- Anthropology, Architecture, Astronomy, BBH, Biology, Chemical engineering, Education, EMS, English, Geography, HDFS, History, LArch, Nutrition, Psychology, Sociology, many Ag departments



Where do we want to be: the Program



- Opportunities for multi-disciplinary, experiential education, student research and outreach in sustainable agriculture and food systems
- Students from any major able to participate
- Within walking distance from campus (Overlook Heights)
- Diverse production: initially vegetables/fruit, later add biofuels, grain, poultry, livestock, etc.
- Likely begin with selling food to PSU Dining Commons
- Connected to the curriculum through Sustainable Food Systems minor, courses on the farm, etc.
- Phased development of a Center/campus

Steering Committee Responsibilities

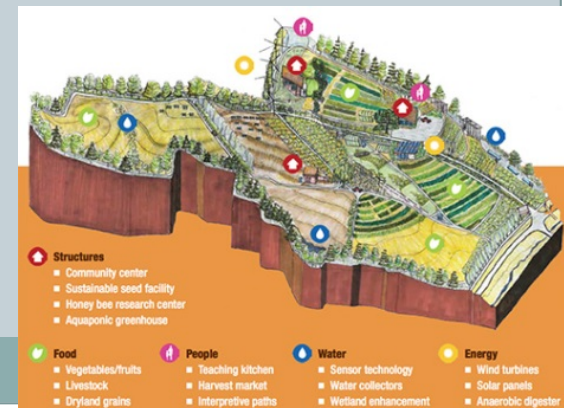


- Set and maintain vision
- Keep the overall initiative moving forward according to approved timelines
- Ensure cross-college engagement
- Develop the program proposal
- Approve proposed budgets
- Oversee the fundraising process
- Support integration into University systems and goals

How do we get there?



- FA14: Research and write a farm program proposal
- SP15: Write full business plan; develop site planning documents; begin capital campaign
- SU15: Continue capital campaign & begin developing site
- FA15: Continue capital campaign & site development; begin farm business, production and market planning
- SP16: Finalize farm plans & supply purchases; begin production



Fall 2014



- Sub-committee work
 - Business and Operations
 - Site Analysis and Design
 - Curriculum and Minor
 - Outreach and Communications
- Week of Oct 20: large group workshop to identify desired features of the farm site, program and curriculum
- Week of Nov 10: large group workshop to identify desirable site layout components
- Student and faculty survey: CED capstone

Sub-Committees



- Student and faculty/staff co-chairs
- 8-12 per committee
- Balance expertise and perspectives
- Meet every other week; first meeting in next 2 weeks
- Provide oversight for committee members' work
- Internal communication: Google Docs, Google Groups, Box
- External communication:
 - Students report to each other (3 Ps); Co-chairs report to steering committee
 - Committee notes posted to sites.psu.edu/studentfarm

Sub-Committees



- **Business and Operations**
 - Elsa Sanchez (co-chair), Dave Cranage, Jim Richard
- **Outreach and Communications**
 - Kristen Devlin (co-chair), Mark Theiss
- **Curriculum and Minor**
 - Sue Barsom (co-chair), Heather Karsten, Mitch Hunter
- **Site Analysis and Design**
 - Derek Kalp (co-chair) Shari Edelson, Dave Mortensen