Challenges and Opportunities in Developing the Student Farm as an Educational Resource: A Nationwide Delphi Study on Student Farms

Stephen Ratasky, Dept. of Crop Science
Michelle Schroeder-Moreno, Dept. of Crop Science
K.S.U. Jayaratne, Dept. of Agriculture & Extension Education

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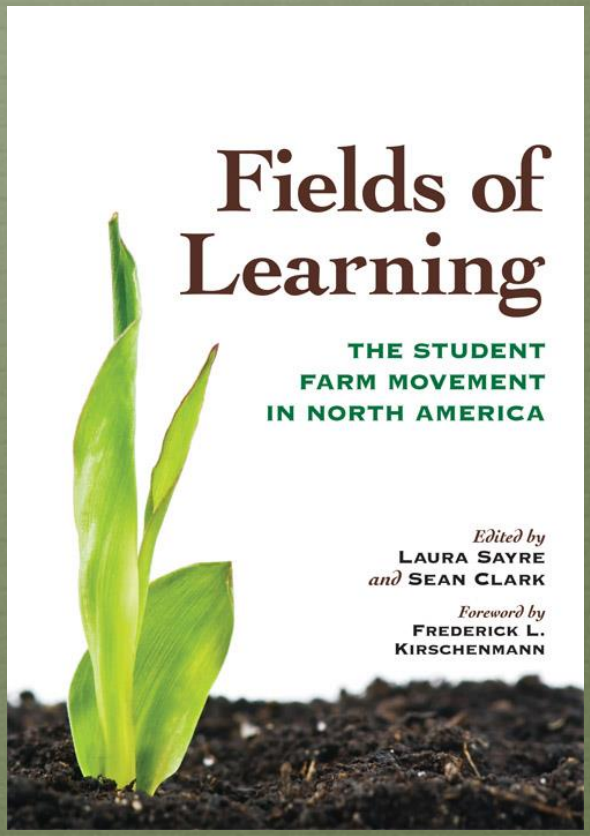
Student Farms are Critical Components of SA Education

- Over 100 sustainable agriculture education programs in colleges and universities nationwide (Parr 2011, Thompson 2009)
- Many of these programs utilize student farms as means for hands-on training and additional education



Recent book published about the student farm movement in North America (2011).

STUDENT FARMS GROWING NATIONWIDE

NCSU Agroecology Education Farm

PARK SCHOLARSHIPS

CEFS

10%

Affiliated with research by Stephen Ratasky, NCSU, Crop Science MS Candidate 2012.
Information from Sustainable Agriculture Education Association (SAEA) and Rodale Institute.
Full map compiled by Brandon Honeycutt, Emily Baldrige, Karli Moore, and Zack Goodman.

WEST

Butte College
CA SPU – Pomona
CA SPU- San Luis Obispo
CA SU - Chico
College of the Redwoods
Colorado State University
Deep Springs College
Evergreen State College
Fairhaven College of Western WA U
Humboldt SU
Merritt College
New Mexico State University
Oregon State University
Prescott College
Rudolf Steiner College
San Diego City College
Santa Rosa Junior College
Stanford University
University of California - Davis
University of California - Santa Cruz
University of Idaho
University of Minnesota - St. Paul
University of Montana
University of Oregon
University of San Diego
Utah State University
Washington State University
Willamette University

MIDWEST

Carleton College
College of the Ozarks
Earlham College
Goshen College
Iowa State University
Lawrence University
Maharishi University of Management
Michigan State University
Northland College
Oberlin College
St. Olaf College
Texas A&M University
University of Illinois Champaign-Urbana
University of Minnesota
University of Wisconsin
Wilmington College

NORTHEAST

Bennington College
College of the Atlantic
Cornell University
Dartmouth College
Delaware Valley College
Dickinson College
Green Mountain College
Hampshire College
Michigan State University
Middlebury College
Mount Holyoke College
Ohio State University
PA State University
Rutgers University
Slippery Rock University
Sterling College
University of Maine
University of New Hampshire
University of Vermont- Burlington
Vassar College
Vermont Technical College
Williams College
Wilson College
Yale University

SOUTHEAST

Appalachian State University
Berea College
Berry College
CEFS- North Carolina State & North Carolina A&T University
Central Carolina Community College
Clemson University
Duke University
Eastern Kentucky University
Elon University
Ferrum College
George Washington University
North Carolina State University
Louisiana State University
University of Florida Gainesville
University of Georgia
University of North Carolina Chapel Hill
University of Virginia
Warren Wilson College
West Virginia University

Lack of Communication Among Student Farms

- Existing research has focused on sustainable agriculture education and curriculum development
- Currently there is a lack of research and communication that targets shared characteristics, educational strategies, etc. on student farms.
- NCSU is in beginning stages of developing a student farm and wanted to further investigate these topics

Presentation Outline

- Objectives
- Study Background and Methodology
- Delphi Study Results
- Conclusions

CEFS interns working at NCSU AEF student education plots (Summer 2012).

Study Objectives

- The objectives include:
  - Identify key characteristics of student farms
  - Describe successful educational and outreach activities for students and community on student farms
  - Identify funding strategies for the establishment and long-term management of student farms
  - Describe current challenges and suggested solutions for student farms nationwide

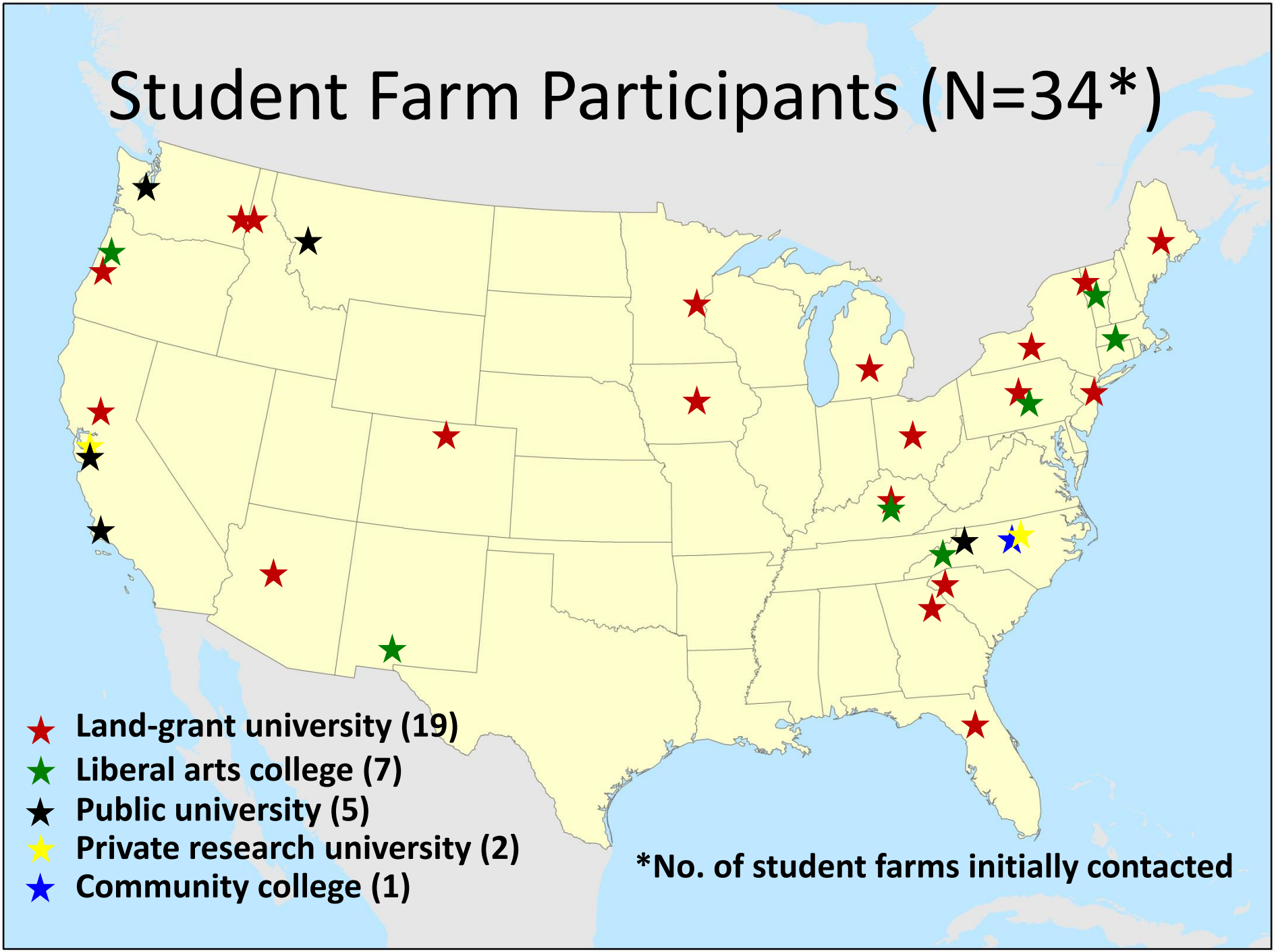
Delphi Methodology

- Multi-round, open-ended questioning technique
- Selected a small participating audience, all deemed experts based on previous knowledge and experience
- Goal is to reach a general consensus among the group participants and implement lessons learned at NCSU

Delphi Methodology

Round 1	Round 2	Round 3
• Student farm participants (N=34) were contacted and received initial 10-question online survey • Responses were gathered and collated from respondents	• Survey was redistributed to participants **with all responses viewable** • Participants were instructed to revise and/or edit any previously made responses	• An exhaustive response list of was created and participants were instructed to **RATE** the responses given the appropriate scale • All data was collected, analyzed, and descriptive statistics generated

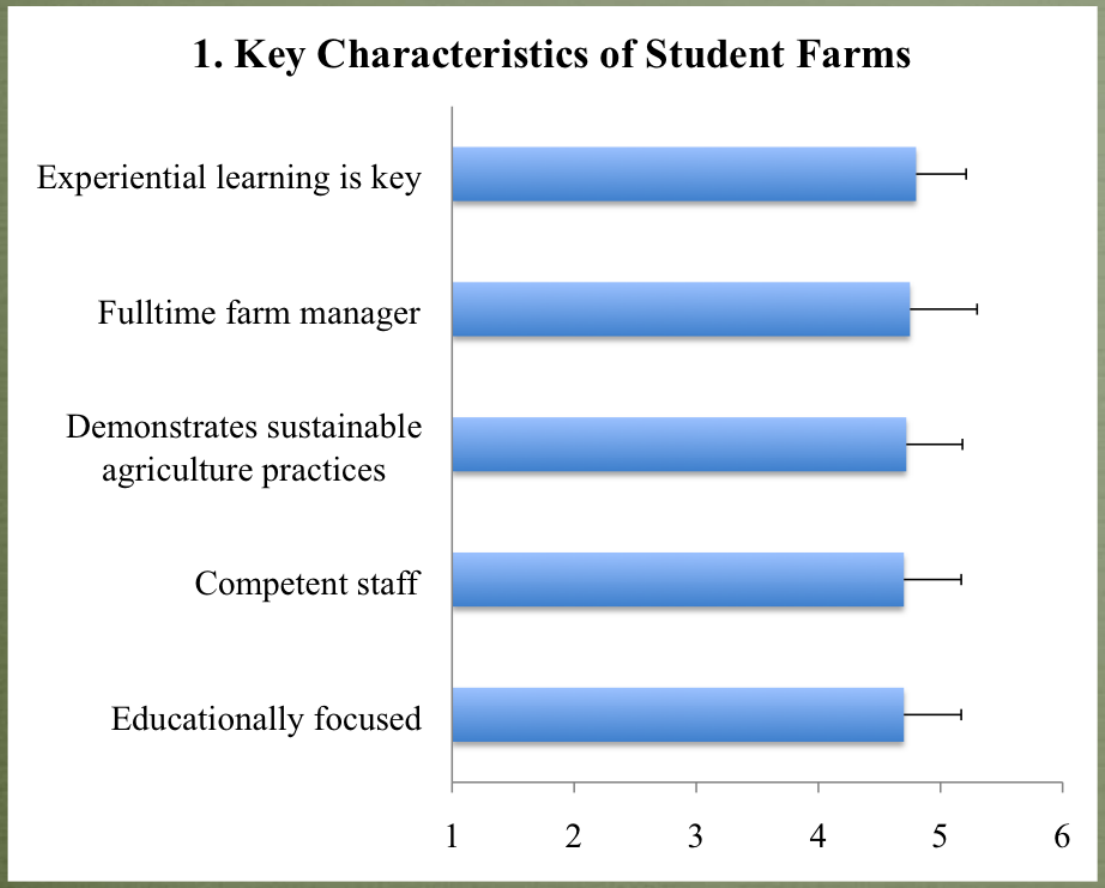
Student Farm Participants (N=34*)



Delphi Survey Questions

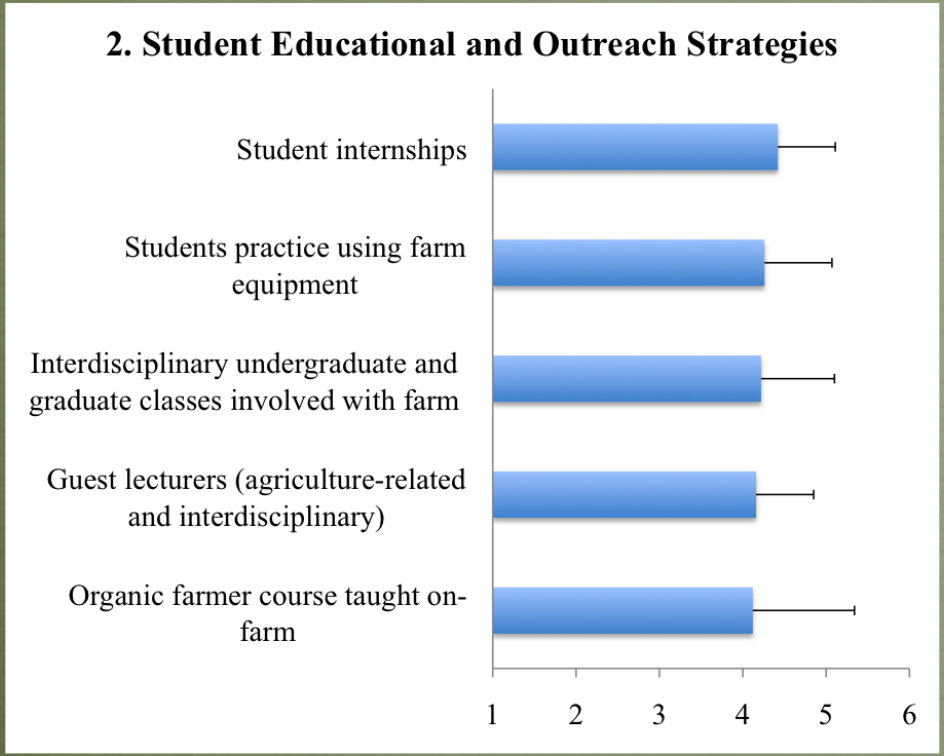
- 10 survey questions were answered about the following topics:
  - Characteristics of a student farm (overall success, establishment, and long-term management)
  - Successful educational and outreach strategies (students and community)
  - Funding strategies
  - Greatest challenges and issues experienced on student farms
  - Practical alternatives and solutions to current challenges
  - Future possibilities on student farms

Results

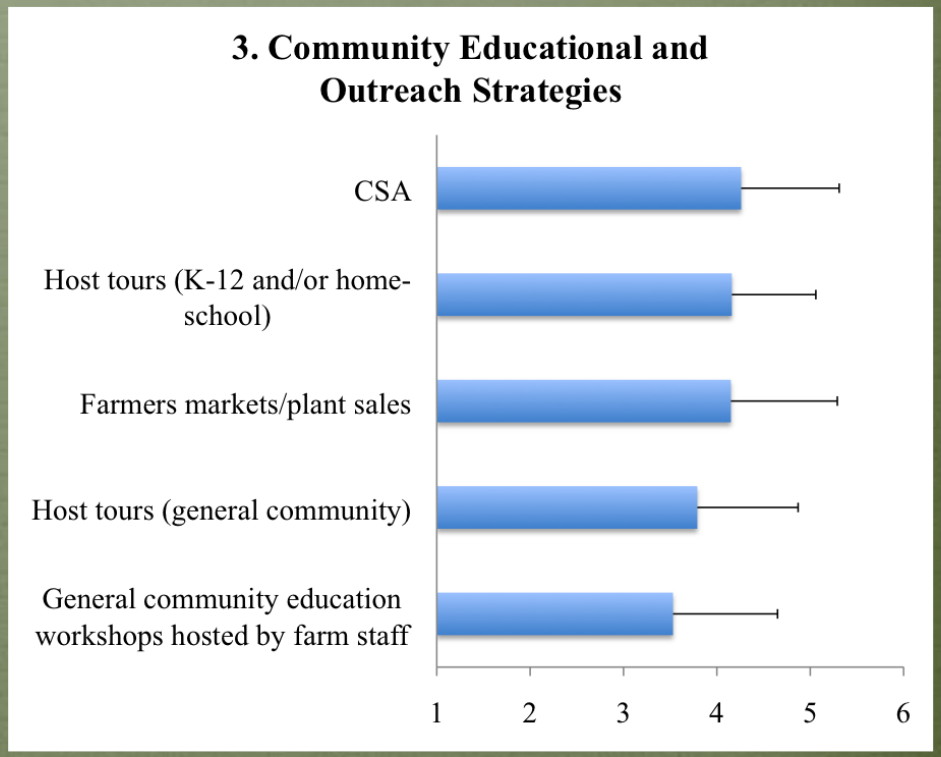


Scale: Not Important (1), Minimally Important (2), Somewhat Important (3), Important (4), Very Important (5); (+SD). Only **top 5 responses** are shown (n=40).

Students tending plots at Central Carolina Community College student farm, Pittsboro, NC.



Scale: Not Successful (1), Minimally Successful (2), Somewhat Successful (3), Successful (4), Very Successful (5); (+SD). Only **top 5 responses** are shown (n=24).



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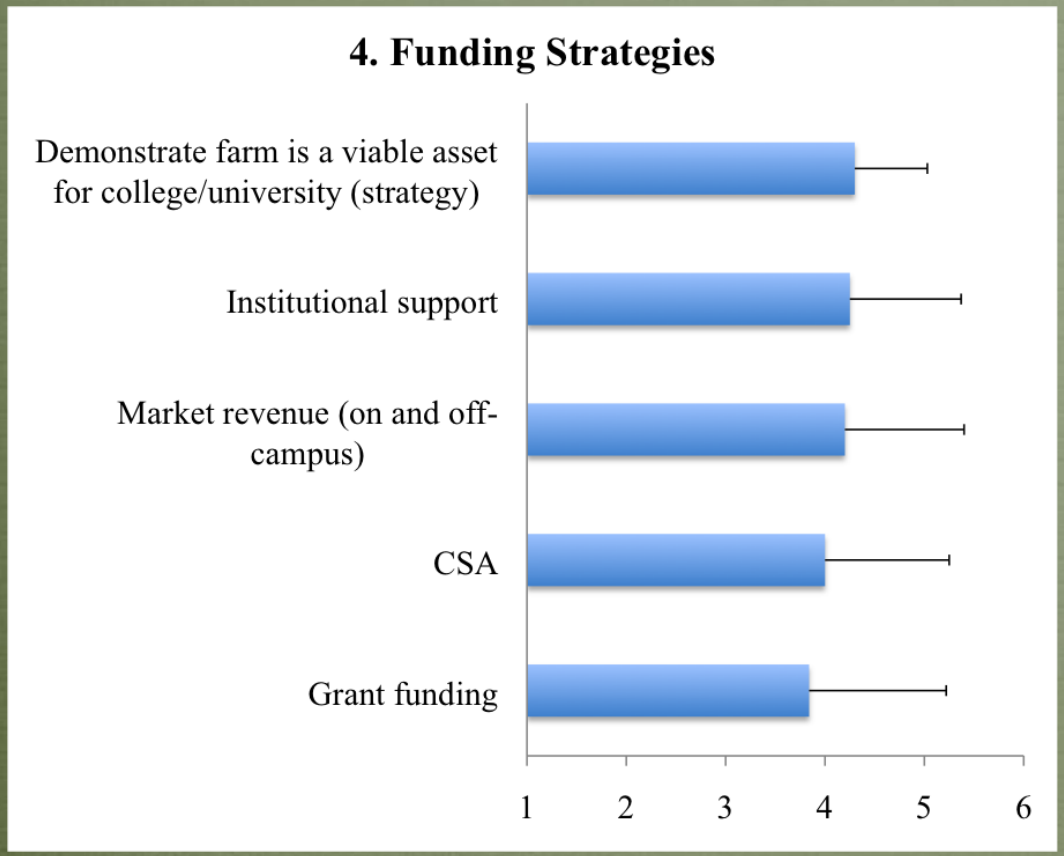
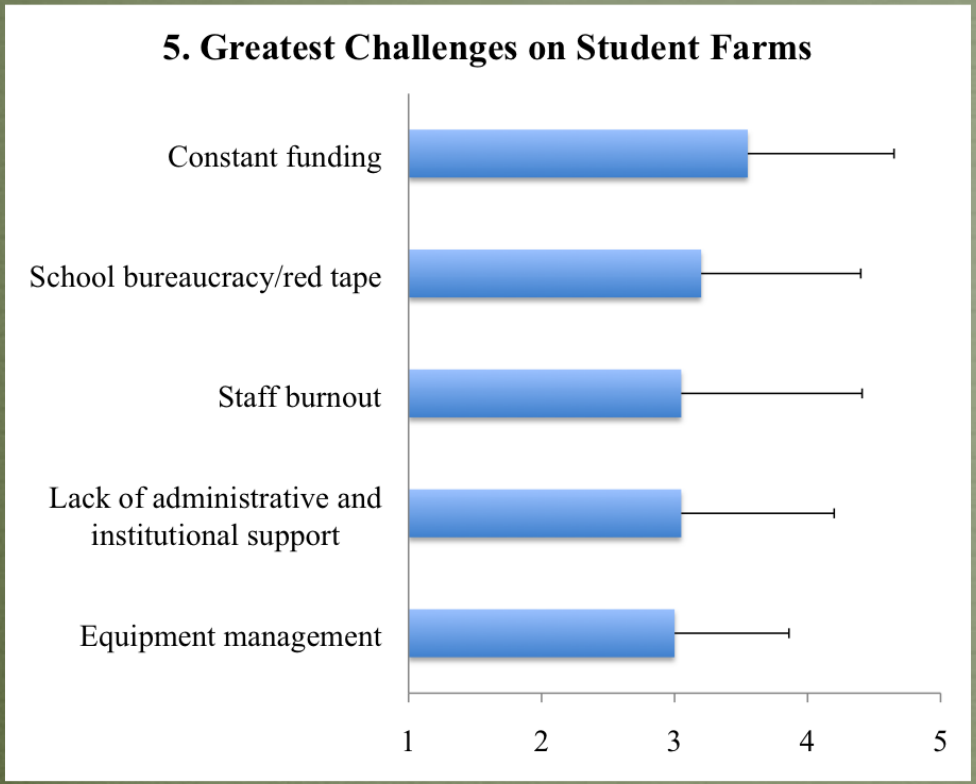
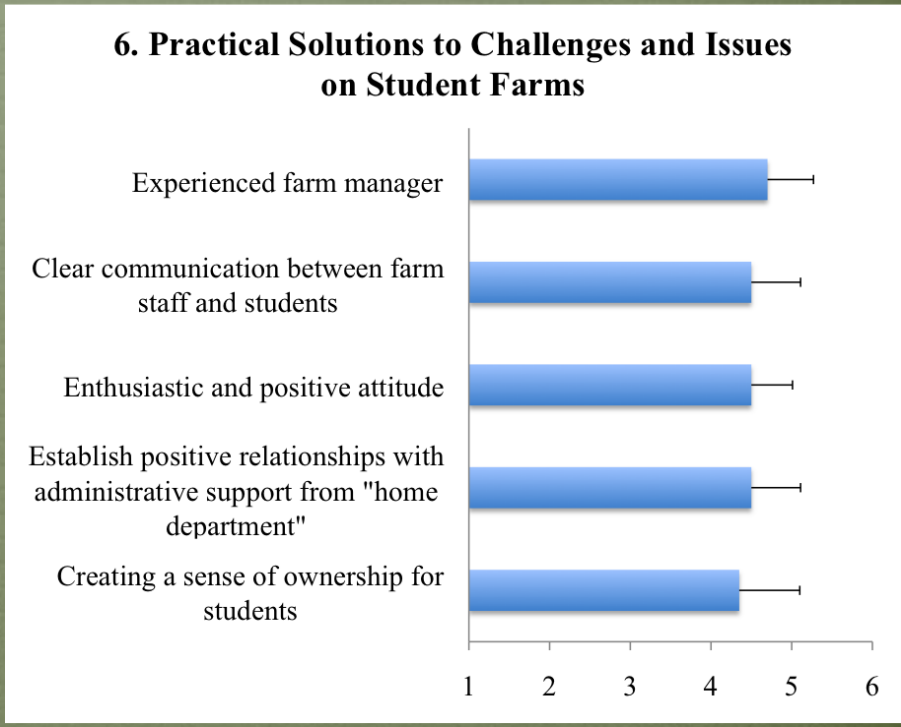


Scale: Not Important (1), Minimally Important (2), Somewhat Important (3), Important (4), Very Important (5); (+SD). Only **top 5 responses** are shown (n=21).

Discussion with institutional administration about AEF development at Farm to Fork Reception (October 2012).



Scale: Not Challenging (1), Minimally Challenging (2), Somewhat Challenging (3), Challenging (4), Very Challenging (5); (+SD). Only **top 5 responses** are shown (n=27).



Scale: Not Important (1), Minimally Important (2), Somewhat Important (3), Important (4), Very Important (5); (+SD). Only **top 5 responses** are shown (n=22).

Study Conclusions

- An experienced farm manager was identified as both a successful component and solution to challenges.
- Experiential learning and interdisciplinary education identified as important for student education strategies.
- Highly rated challenges were maintaining administrative support and constant funding.
- Demonstrating the student farm as a viable asset to the institution was identified as an important funding strategy (and can ultimately act as a solution).
- **Great potential for student farms to go beyond the model of just educating students and can engage community**.

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