

Michigan State University Student Organic Farm Brief Organizational Description

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The Student Organic Farm is a Michigan State University program developed by faculty, staff and students and located at the Horticulture Teaching and Research Center on south campus. Our mission is to cultivate knowledge and human capacity in organic and sustainable agriculture for students, farmers and educators. We strive to integrate experiential education, applied research, farmer outreach and community engagement around diverse, ecological, small-scale, intensive, year-round horticultural specialty crops including options for integrated animal and field crop production.

1. Background

The MSU Student Organic Farm (SOF) grew from a partnership of the students of the Michigan Sustainable Agriculture Network (MSAN) and faculty and staff including horticulture professor John Biernbaum, extension specialist Susan Smalley and academic specialist and Coordinator of the Residential Initiative for Study of the Environment (RISE) undergraduate specialization Laurie Thorp. MSAN was a registered student organization (RSO) supported by the CS Mott Chair for Sustainable Agriculture that eventually grew into the Student Organic Farm Initiative (SOFI) RSO, followed by the Student Organic Farm RSO and currently the Ecological Food and Farming Stewardship (EFFS) RSO. Initial discussion of the farm started in spring 1999, the organic high tunnel research at the Horticulture Teaching and Research Center (HTRC) that formed the basis of the farm started in 2001, the year-round community supported agriculture (CSA) program started in spring 2003, and the first RISE seminar class at the SOF taught by Thorp and Biernbaum was fall 2003. The first four years of activity were funded by \$120,000 in research grants, \$95,000 from the W.K. Kellogg Foundation, \$100,000 from the USDA Higher Education Challenge Grant Program and \$75,000 in produce sales. Initial farm managers were horticulture masters degree candidates on assistantship with the current staff farm manager position beginning in 2005. High tunnel and organic farming outreach expanded in 2006 with funding from the USDA Risk Management Agency. The 11-month Organic Farming Certificate Program (OFCP) in the Institute of Agricultural Technology was developed and approved in 2005-2006, and initiated in January 2007. After 3 years the IAT certificate program was discontinued and transitioned into the 9-month outreach (non-credit) Organic Farming Training Program (OFTP) and the Horticulture “Sustainable and Organic Horticulture” Bachelor of Science degree concentration in 2010.

Additional information is available at the website: www.msuorganicfarm.org.

2. Organization

The SOF continued the MSAN Steering Team management process. The ST operates with consensus decision making. Steering Team (ST) members represent the primary project areas and management responsibilities which are described below and illustrated in the organizational diagram at the end of the document. The current ST members and responsibilities are:

- John Biernbaum, Professor, Horticulture; Faculty Coordinator; Education, Research, Outreach and Infrastructure Development; (60% GF, 20% MABR, 20% MSUE)
- Laurie Thorp, Academic Specialist, College of Natural Science (75%) and CARRS (25%); Coordinator of Environmental Studies Specialization and Residential Initiative on the Study of the Environment (RISE) living learning program; SOF Undergraduate Programs Coordinator;
- Jeremy Moghtader, Academic Specialist, Outreach, Horticulture; Director of the Organic Farmer Training Program and SOF Farm Manager

- Adam Montri, Academic Specialist, Outreach, Horticulture; Hoophouse Outreach Coordinator
- Dan Fillius, Farm Assistant Manager (correct University title), Horticulture, SOF Production Manager

The primary roles of the Steering Team are to a) manage and provide integration of project areas, b) evaluate proposed new project areas for compatibility with mission, resource availability and economic sustainability, c) insure adherence to university and HTRC policy and d) function as stewards of the SOF programs and resources. Since 2005 the Steering Team has been comprised of faculty and staff. Additional faculty and staff may be added as new project areas are initiated. The need for additional members or change in the ST is determined by the ST. Student input to the Steering Team occurs through multiple channels including SOF employees and volunteers (through Fillius), undergraduate students (through Thorp), and the affiliated “EFFS” RSO (through Biernbaum and Julie Cotton, SAFS Specialization). With the location of the farm at the HTRC, the Horticulture departmental appointment of the faculty coordinator, and the emphasis on vegetables and fruit, the SOF is appropriately housed in the Horticulture Department. Faculty, staff and students from multiple departments in CANR and other colleges routinely participate in SOF activities and the SOF is viewed by the ST as more than a single department program.

3. **Program Areas** (Additional program area details follow in Section 6.)

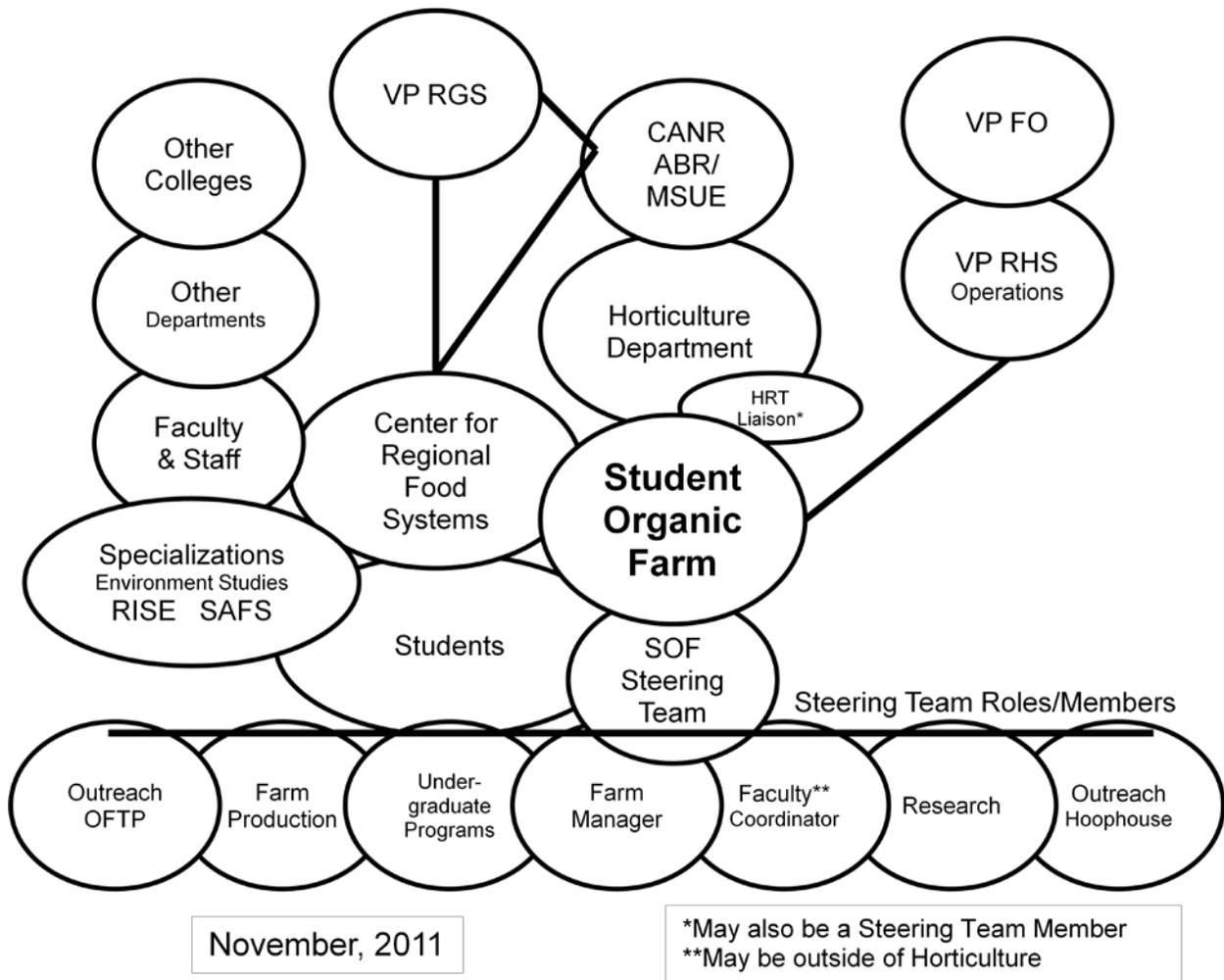
The SOF was intentionally developed with an emphasis on student engagement in a context that integrates teaching, research, outreach and community service. There are currently five key program areas that reflect the original goal. The activities occur primarily at the HTRC located on south campus (3291 College Road, Holt), but also occur in partnership with other units and locations around campus such as the planned herb hoophouse at Bailey Residential Hall and across the state in the case of Hoophouse Outreach. Program activities are consistent and operate within the HTRC policies as determined by the Horticulture Department, HTRC faculty coordinator and HTRC manager.

1. *Year-round Organic Produce Production and Marketing* provides a foundation for the SOF and our service to the campus, local and statewide communities. Primary program responsibility including student employees and volunteers is with Jeremy Moghtader and Dan Fillius.
2. *Undergraduate Experiential Education and Research* occurs through paid and volunteer positions and on-farm laboratories or field study trips by MSU, LCC and other students. Primary coordination and leadership is by Laurie Thorp and John Biernbaum with on farm implementation including tours and volunteers by SOF staff.
3. *The Organic Farmer Training Program (OFTP)* is a nine-month full-time intensive on-farm outreach program designed to prepare a cohort of 15 to 16 participants to operate a year-round diversified organic farm and related marketing and community activities. The OFTP is lead by Jeremy Moghtader and is integrated with the produce production and marketing.
4. *Hoophouse/High Tunnel Farmer Outreach* to rural and urban farmers and high tunnel users is provided and Adam Montri, with mentoring and presentation support from John Biernbaum.
5. *Organic and Year-round Produce and Farm Animal Research* at the SOF is coordinated by John Biernbaum and Laurie Thorp. Research is both at the SOF and other sites through partnerships with faculty exploring certified organic production methods.

4. Decision Making and Lines of Responsibility

The Steering Team works through a consensus mode of decision making. Consistent with University policy, a faculty member (Biernbaum, Horticulture) is responsible for the program and reports to a department chair (Baird, Horticulture). Consistent with University policy, academic specialists report to a department chair and or Dean together with consultation with the faculty member responsible for the program. The SOF faculty and staff are currently participating with the MSU CS Mott Group in the development of the proposed MSU Center for Regional Food Systems. This Center will provide a new and broader context for SOF activities and expanded program connections as part of the Center within the university. If the Center is approved, the SOF Steering Team will continue to function as described elsewhere in this document, but will do so in direct connection to the Center, while also maintaining its affiliation with Horticulture and other units.

MSU Student Organic Farm Organization and Partnerships



5. Funding, Financial Administration and Oversight

As the program started and grew, funds from produce sales were initially managed as a subaccount in the HRT revolving account, then a separate revolving account with three subaccounts and currently funds are managed in three revolving accounts (produce, OFTP, outreach). In addition research/grant accounts and a scholarship endowment account are all managed by HRT. An additional project revolving account is located in CARRS (Thorp) and a proposed scholarship endowment account is to be located with Residential and Hospitality Services (RHS).

During a strategic planning process funded by CANR in 2007 and 2008, the SOF-ST engaged community partners and CANR administration, faculty, staff and students in an in-depth review of programs and identification of opportunities. While enthusiastic about the SOF programs, neither the Horticulture Department nor the CANR administration were able to identify a viable plan for recurring funding of SOF staff/programs other than through the faculty coordinator position (Biernbaum). The SOF-ST therefore continues a course that relies primarily on entrepreneurial programs and grants. Both the CSA program and the OFTP are managed as pay-in-advance programs. The hoophouse outreach program is a grant funded project. Program expenses for the three project areas outlined total \$424,500 and are approximately 85% labor and 15% operations.

Budget Summary

	Farm & Produce		Organic Farmer Training		Hoophouse Outreach	
Revenue	CSA	\$150,000	Fees	\$126,000	Ruth Mott	\$25,000
	Farm Stand	\$20,000	Other	\$3,500	MEDC, Kellogg	\$50,000
	Wholesale	\$15,000			Other	\$35,000
	Total	\$185,000		\$129,500	Total	\$110,000
Expenses	Students	\$40,000	Specialist	\$75,500	Specialist (80%)	\$60,000
	Staff (3)	\$100,000	Staff (1.5)	\$50,000	Staff (1)	\$35,000
	Operation	\$45,000	Operation	\$4,000	Travel & Oper	\$15,000
	Total	\$185,000	Total	\$129,500	Total	\$110,000

Specialists, staff and activities directly support the undergraduate experiential education component. Budget for project areas above does not include salary for Biernbaum or Thorp; or associated research. Biernbaum salary and fringe is approximately \$150,000 with salary lines of 60% UG, 20% ABR, 20% MSUE. Biernbaum currently teaches 9 credit hours annually in Horticulture. Courses are related to SOF program areas but not directly tied to the SOF. Assuming 50% of Biernbaum time as SOF related, the budget total approaches \$500,000.

The RISE budget is not related to the overall SOF budget with any 'hard line' or direct support. The RISE program is funded through the College of Natural Science with support from 6 other colleges, including CANR. Laurie Thorp, Director of the Environmental Studies Specialization/RISE program has no formal appointment related to the SOF but has provided service to the university for the past 8 years serving on the SOF Steering Team. Her contribution to the SOF is representative of how other faculty and staff can associate with the farm formally or informally to accomplish their related teaching, outreach and research goals. The SOF-ST would like to see similar relationships develop with additional staff and faculty.

6. Additional Program Area Details

Year-round Diverse Organic Produce Production and Marketing

Certified organic produce (vegetables, fruit, herbs, flowers) is grown using approximately five acres of field production and 0.5 acre passive solar or heated greenhouses. In accord with the philosophy of successful farming taught and modeled at the SOF, diverse and primarily direct marketing relationships have been developed and provide the foundation for year-round experiential education programs and community engagement/service.

- CSA Programs: Currently 70 year-round memberships and 60 summer-only memberships providing fresh organic produce for over 500 people.
- On-Campus Farm Stand (Weekly from April through October).
- Residential and Hospitality Services (RHS) partnership for wholesale fresh produce.
- MSU Purchasing wholesale produce agreement.

Undergraduate Experiential Education for Specializations and Majors

The foundation of the SOF is the living laboratory the farm provides for students of diverse interests to engage in a wide range of agriculture and food system experiences from field to fork to understanding their roles and responsibilities related to food and farming. The farm provides a context and a place for students to share, discuss and process classroom concepts with their peers. Students are engaged in a range of entrepreneurial experiences where they fully understand that their meaningful work is essential for the ongoing success of the farm. Example projects developed by or for students in the Environmental Studies specialization and RISE include honey bees, laying chickens, pork grazing, worm composting and culinary herb production. The SOF provides a bridge between the academic and operational aspects of MSU including partnership with RHS related to local food for campus and the cycling of food from the farm to campus and back to the farm in the form of food residuals used for compost production to renew the farm soil. Biernbaum teaches the Organic Farming Principles and Practices course (HRT 251, 3 cr), Compost Production and Use (HRT 253, 1 cr), Organic Transplant Production (HRT 243, 1 cr), and Passive Solar Greenhouses for Protected Cultivation (HRT 242, 1 cr), which are either required or electives in the Sustainable Agriculture and Food Systems (SAFS/Julie Cotton) specialization in CANR and the Sustainable and Organic concentration within Horticulture. The SOF is used for field trips or as a laboratory for at least 10 other MSU courses. The SOF continues to be a recruiting tool for undergraduate and graduate students.

Organic Farmer Training Program (OFTP)

The OFTP is a nine-month full time outreach program that runs from March 1 through November 15. Participants are selected by the OFTP Director and staff through an application and interview process designed to build a diverse, compatible co-hort of 15 to 16 participants. Fees (\$8,400 per participant in 2011 and 2012) are submitted one-half upon acceptance into the program and half prior to the start of the program. An internal MSU loan program using as yet unsecured non-state dollars has been proposed and is under review/consideration by MSU administration.

The curriculum was developed to meet a set of defined learning objectives and outcomes originally identified by the Steering Team and approved by HRT, CANR and University curriculum committees as the Organic Farmer Certificate Program with the Institute of Agriculture Technology. After three years as a for-credit program the OFCP was shifted to a non-credit outreach program to better meet the educational needs of the applicants and participants and to more efficiently align with the operation of the SOF farming programs. OFTP funds currently support the director and lead instructor, the OFTP manager, and a part-time

recruitment and application management coordinator. The OFTP curriculum is updated annually under the leadership of Jeremy Moghtader, OFTP Director, based on participant comments and Steering Team review. Participants successfully completing the program are awarded a certificate from the SOF and the Department of Horticulture.

Hoophouse Outreach Program

Year-round organic farming education with an emphasis on the use of high tunnels (also called hoophouses or passive solar greenhouses) is provided throughout Michigan to rural and urban farmers. Outreach activities occur with partners across Michigan including Michigan Food and Farming (MIFFS), Michigan Organic Food and Farming Alliance (MOFFA), Greening of Detroit, Ruth Mott Foundation (Flint), Michigan Land Use Institute (MLUI), MSU Mott Group, MSUE, USDA Risk Management Agency (RMA), USDA Natural Resource Conservation Service (NRCS), Michigan Department of Agriculture (MDA), and Michigan Economic Development Corporation (MEDC). See www.hoophouse.msu.edu.

Applied Research

The SOF was the first campus site for organic farming related research and has been certified organic since 2004. Activities at the SOF have demonstrated MSU organic farming expertise to farmers and organic farming research granting agencies, and helped inspire additional MSU organic farming research. Yield data for fields and hoophouses has been collected since 2003. Dr. Biernbaum continues work on vermicomposting of campus food residues and organic transplant production that benefit the SOF production. Example associated research projects include 1) organic swine husbandry with Drs. Rozeboom (ANS) and Thorp (CARRS), 2) organic high tunnel fruit production with Drs. Hanson, Lang (HRT), Isaacs, Greishop (ENT), Schilder (PLP) and specialist Morrone, 3) compost for application of beneficial nematodes in orchards with Dr. Whalon (ENT), 4) compost and compost tea for plant pathogen management with Dr. Schilder (PLP), 5) organic edible dry bean production with Drs. Renner and Adams (CSS), 6) biological pest management with Dr. Greishop, and 7) vermicompost for increasing methane production by anaerobic digestion with Dr. Safferman. The SOF is one of four teaching programs in the research project funded by the Department of Education to study student learning related to sustainability by Drs. Habron and Thorp (CARRS).

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Early in the development of the SOF, Dr. Biernbaum proposed a vision for the farm and programs as *“Farmers, friends and families using facts and feelings to faithfully, physically and fearlessly farm front-yards, forests and fields for food, feed, fiber, fuel, flowers, fertility, fun, freedom, fairness, and the future.”* (The reason why the RSO for the SOF is known as “EFFS”.)