An Educational Farm as a Model of Sustainability: Experiences at Berea College

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STUDENT FARM MOVEMENT

There has been widespread and growing interest in student educational farms over the past two decades (Figure 1). College students, staff, and faculty see value in creating and developing educational farms on campuses to provide experiential learning opportunities in sustainable agriculture.

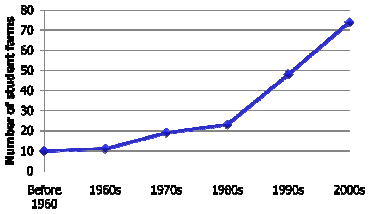

Figure 1. Cumulative number of student farms established at colleges and universities in North America. Data from Sayre and Clark (2011) *Fields of learning: The student farm movement in North America*. Establishment dates were not available for 13 of the 87 farms listed.

But can a student farm really serve as a realistic model of sustainability? Separated from the risks of the market and often operated by individuals ('academics') with limited direct experience in production agriculture, some critics argue that these farms are little more than privileged students "playing farmer" and that they have little resemblance or relevance to the agricultural systems that actually produce the food we eat. Indeed, most of these are focused on using and developing alternatives to conventional methods that are more sustainable. But agreeing upon and then meeting the multifaceted criteria constituting sustainability – ecological, economic, and social – can be a challenge.

BEREA COLLEGE FARM

Established in 1871, the Berea College Farm is one of the oldest continuously operating student farms in North America (Figure 2). Today it includes field crops, horticultural crops, pastures, and livestock on about 500 acres of land surrounding the campus in central Kentucky.

Figure 2. Images of the Berea College Farm in the early 1900s (photos from the Berea College Archives).

In the late 1990s the horticultural enterprise began transitioning to certified organic production while the rest of the farm continued with conventional practices and a degree option in 'sustainable agriculture systems' was added the curriculum.

Figure 3. The horticulture enterprise, managed organically since the late 1990s, uses food-waste compost as it's primary soil amendment and potting medium.

TENSION AND CHANGE

An informal and counter-productive division emerged between students working in horticulture and pursuing the "sustainable systems" degree and those pursuing the general agriculture degree and working with the conventional crop and livestock enterprises. To alleviate this problem the two degree options were merged into one – BS in Agriculture and Natural Resources – and two goals were agreed upon and formalized for the farm:

1. Be a **laboratory** to provide students with ***practical learning experiences***
2. Serve as a **model** of ***sustainable agricultural production*** in the region (Figure 4)

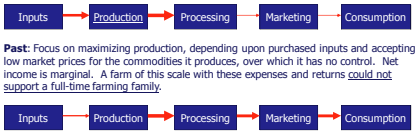

Figure 4. Diagram showing the shift from maximizing production to a goal of achieving sustainability, without prescribing a specific production system, such as organic. Arrows indicate emphasis.

This has allowed students, staff, and faculty involved with the farm's five main income-generating enterprises to pursue the goals with flexibility, creativity, and accountability (Figure 5).

Figure 5. Main farm enterprises generating income: horticulture, hogs, beef cattle, goats, and value-added processing.

MEASURING PROGRESS

The farm has measured and tracked indicators of environmental, economic, and social sustainability. Sharing information and maintaining transparency has been important for promoting constructive dialogue among students, staff, and faculty with different perspectives on sustainability and useful in making long-term management decisions.

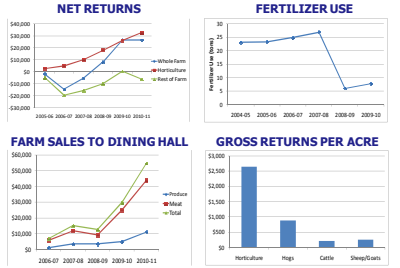

Figure 6. Selected indicators of farm performance and sustainability.

Student feedback on recent changes in management practices indicate that strong differences of opinion about sustainability persist but the farm is seen as a valuable educational resource that is considered essential to their education in agriculture (Figure 7).

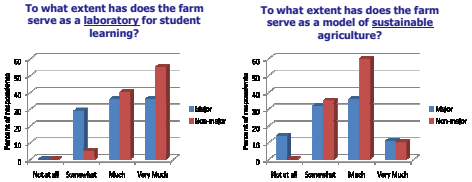

Figure 7. Student survey results, April, 2011. N = 28 majors and 20 non-major who worked on the farm during the academic year.