Workshop Topics and Objective

- Local sustainable agriculture and food system overview
- Operating sustainably
- Sustainable sourcing and distribution
- Marketing sustainable business and product attributes
- Operational resiliency
- Thinking strategically

Our objective is to foster collaborative learning and facilitate networking and B to B relationships.
The Transition to Sustainable (regenerative) Agriculture

Agriculture is sustainable when it:

• Feeds and nourishes people
• Restores and protects the land, air, water and other species on our planet (across the full product lifecycle)
• Is resilient to and helps mitigate climate change
• Provides livelihoods and dignity for farmers, workers and rural communities
Sustainable Agriculture: A practice By Any Other Name...

• The many perspectives and approaches to sustainable agriculture:
  • Agricultural best management practices
  • Sustainable intensification
  • Agroecology
  • Climate-smart agriculture
  • USDA Organic
  • Integrated agricultural production systems (permaculture, holistic management, etc.)
  • Multi-trophic aquaculture
  • Local food systems

• These approaches depart from conventional agricultural practices by embracing a robust systems framework.
The Common Market

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Address: offices in Philadelphia, New York City and Washington, DC. Main warehouse in Philadelphia, PA. Potential to meet farmers to pick-up product in Coxsackie, NY

Mission: To build an abundant supply of wholesome food in the region, keep food affordable and pay a fair price to producers. The Common Market sources from farmers and food artisans who show their commitment to sustainability in their responsible land stewardship and fair business practices, and gives preference to those who share our belief that sustainability is not a fixed point but a pathway of continuous improvement. The Common Market is currently focused on expanding institutional market opportunities, such as schools and hospitals.
Permaculture Ethics & Principles

Creatively Use & Repond To Change
Observe & Interact

Use Edges & Value the Marginal
Catch & Store Energy

Use & Value Diversity
Obtain A Yield

Use Small & Slow Solutions
Apply Self Regulation & Accept Feedback

Integrate Rather Than Segregate
Use and Value Renewable Resources & Services

Design from Patterns to Details
Produce No Waste

Ethics:
Care of Earth, Care of People & Fair Share

Source: Permaculture: Principles & Pathways Beyond Sustainability, David Holmgren, 2011
“White Oak Pastures is Radically Traditional Farming. Every day, we butcher meat from animals raised in a regenerative manner using humane animal management practices. To operate our vertically integrated, zero-waste model it takes caring people working together to accomplish a common goal: taking care of our land and our livestock.

We sell the meats and poultry we butcher on our farm. The hides from the cattle we slaughter are dried for pet chew rawhides or tanned and crafted into leather goods. The fat from our cattle is rendered down to create some of the most clean and pure tallow products available. The inedible viscera is composted to later be spread on our farm as rich organic matter to fertilize our soil.

White Oak Pastures is one of only a few Savory Institute hubs to restore grasslands with properly managed livestock.

White Oak Pastures is rebuilding the village of Bluffton, Georgia. Many rural communities have been sinking into oblivion because they were made irrelevant by the industrialized, centralized and commoditized farming system. In the last ten years, the impact of our farm on this small town of 100 people has been dramatic. We now employ 155+ good people who are eating, shopping and living in Bluffton.”

Source: https://www.whiteoakpastures.com/meet-us/about-white-oak-pastures/
Carbon footprint breakdown per kg of White Oak Pastures’ beef

Enteric emissions

- Conventional beef US*** (33)
- Pork CA* (9)
- Chicken US* (6)
- Beyond Burger™ ** (4)
- Soybean US* (2)

Manure emissions

- Soil carbon (29)
- Veg carbon (5)

Other farm activities (1)

Slaughter and transport (0.2)

Net total emissions (-3.5)

All numbers shown are Kg CO2-eq emissions per Kg fresh meat

*Value for comparison taken from the World Food LCA Database v. 3.3
**Value for comparison taken from Beyond Meat’s LCA
***Value for comparison calculated based on Rotz, 2013. Assumes no C loss or storage in cow-calf stage

"The County Agent," Norman Rockwell, 1948 - Marking the Transition to Modern Agriculture

Source: Norman Rockwell painted "The County Agent" for the cover of the July 24, 1948 issue of the Saturday Evening Post.
The Business of Agriculture in the 21st. Century — Let’s Not Overlook the Challenges

The corporate view
- Consolidate land holdings, new crop varieties (including GMOs), chemical and energy intensity, minimize labor, optimize yield

The challenges facing many small/mid-size farmers in the U.S.
- An ever increasing dependency on mechanization, fertilizers, pesticides, GMO seeds and associated debt and damage to the land
- Loss of available farm infrastructure
- Limited access to technical, financial and educational assistance
- Limited access to competitive markets
Sustainable Agriculture

Why Now?

- Challenges driving action toward sustainable agriculture:
  - Climate change mitigation and adaptation
  - Water quality and availability
  - Nutrient and pesticide management
  - Soil quality
  - Control deforestation
  - Pollination and other ecosystem services
  - Crop biodiversity (minimize use of GMOs)
  - Nutrition and diet
  - Competing land uses (biofuels, etc.)
  - Concentrated animal agriculture
  - Farmer, worker, rural community livelihoods, quality of life

As well as the critical need to increase yields to feed a growing, more affluent global population.
The Contribution of Livestock Production to Climate Change

According to the U.N. Food and Agriculture Organization, Global Livestock Environmental Model (GLEAM), "livestock emissions are estimated at 7.1 gigatonnes CO2-eq per annum, representing 14.5 percent of human-induced GHG emissions -- the livestock sector plays an important role in climate change."

Global surface area allocation for food production

The breakdown of Earth surface area by functional and allocated uses, down to agricultural land allocation for livestock and food crop production, measured in millions of square kilometres. Area for livestock farming includes grazing land for animals, and arable land used for animal feed production. The relative production of food calories and protein for final consumption from livestock versus plant-based commodities is also shown.

“More than three-quarters of our agricultural land is used for the rearing of livestock through a combination of grazing land and land used for animal feed production. Despite being dominant in land allocation for agriculture, meat and dairy products supply only 17 and 33 percent of global caloric and protein supply.”


Source: Our World in Data, https://ourworldindata.org/land-cover
Figure SPM.7 | Summary of projected changes in crop yields, due to climate change over the 21st century. The figure includes projections for different emission scenarios, for tropical and temperate regions, and for adaptation and no-adaptation cases combined. Relatively few studies have considered impacts on cropping systems for scenarios where global mean temperatures increase by 4°C or more. For five timeframes in the near term and long term, data (n=1090) are plotted in the 20-year period on the horizontal axis that includes the midpoint of each future projection period. Changes in crop yields are relative to late-20th-century levels. Data for each timeframe sum to 100%. [Figure 7-5]