

National Efforts to Evaluate Agriculture's Sustainability

Linda J. Cox

In the last issue of the newsletter, the need to develop a sustainability evaluation system for agriculture in Hawai'i was discussed. In this article, information about what has been done to develop such a system at the national level is presented.

The Keystone Center, a non-profit organization focusing on collaborative decision-making processes for environment, energy, and health policy issues convened and facilitated Field to Market, a collaborative stakeholder group of producers, agribusinesses, food and retail companies, and conservation organizations that are working together to develop a supply-chain system for agricultural sustainability. The group is developing a Sustainability Index for agriculture that can be used at the international, national, regional and local scale.

Field to Market concluded that the complete index should be comprised of environmental; health and safety; and social and economic outcomes. The components included in the Sustainability Index are:

Environmental Outcomes

- ▶ Land use
- ▶ Soil loss
- ▶ Water use
- ▶ Water quality
- ▶ Energy use
- ▶ Climate impact
- ▶ Biodiversity

Health and Safety Outcomes

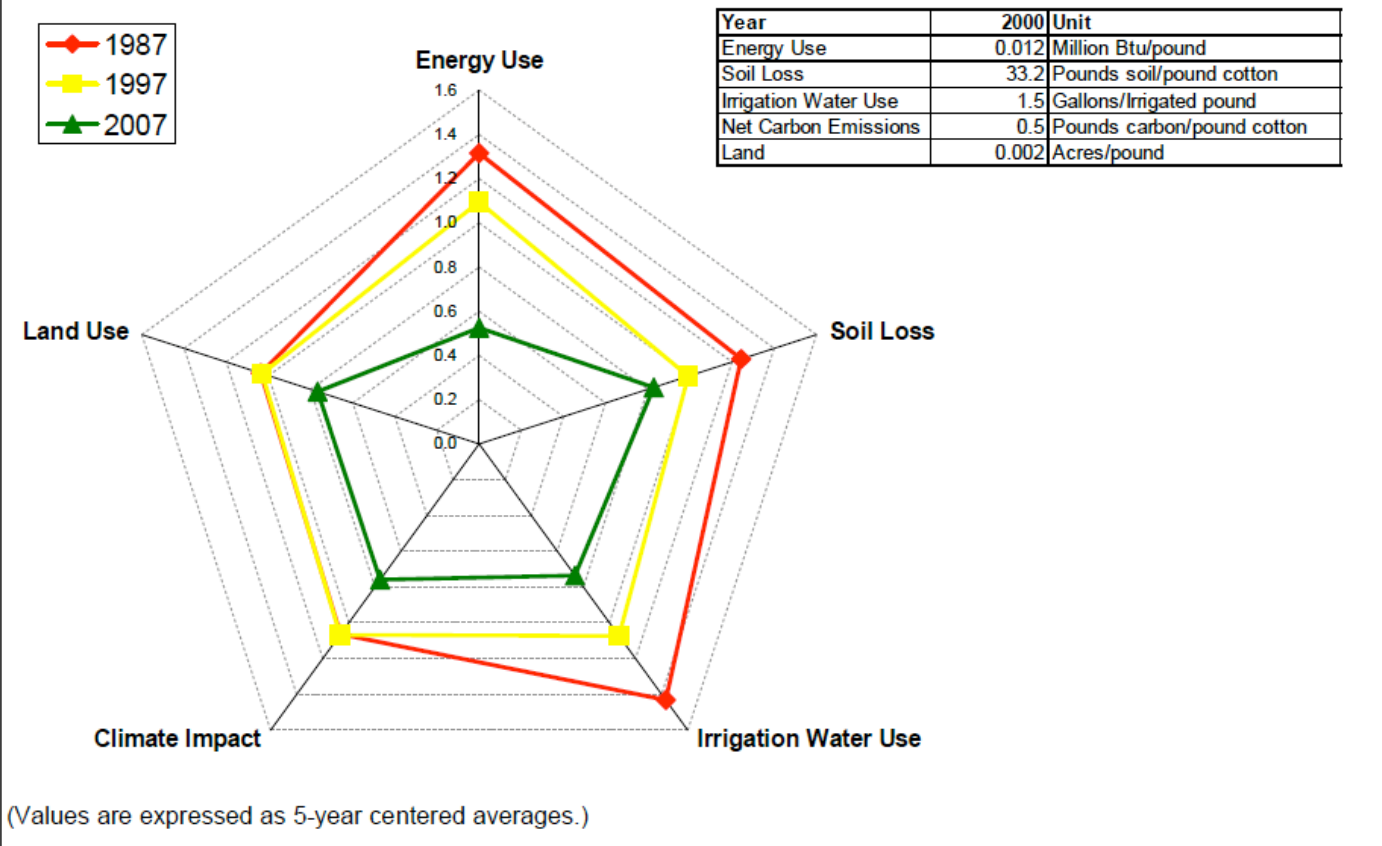
- ▶ Nutrition
- ▶ Safety

Social and Economic Outcomes

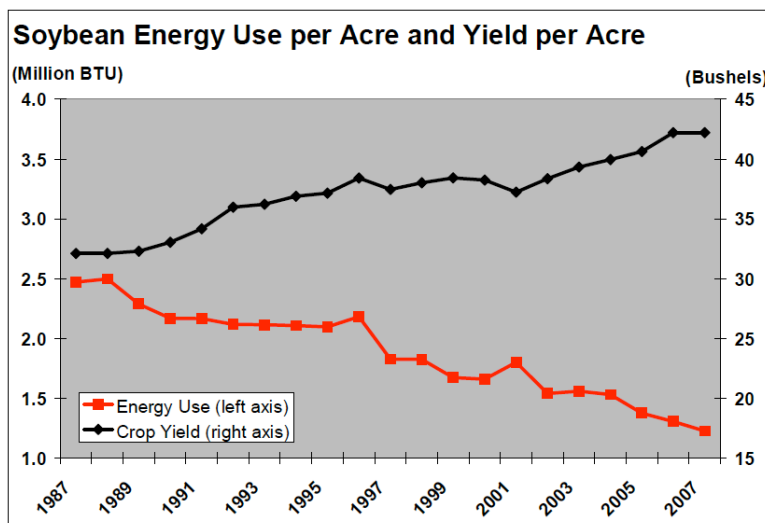
- ▶ Producer income
- ▶ Competing land and product uses
- ▶ Rural character and quality of life
- ▶ Availability
- ▶ Post harvest loss
- ▶ Consumer demand
- ▶ Return of value to producers

In order to begin, the group decided to start at the national scale and benchmark the environmental performance of particular crops. Data collected at the national level was used to measure outcomes for the five environmental indicators for land use, soil loss, irrigation water use, energy use, and climate impact for corn, cotton, soybeans, and wheat in the U.S.

Cotton Efficiency Indicators (Per Unit of Output, Index 2000 = 1)

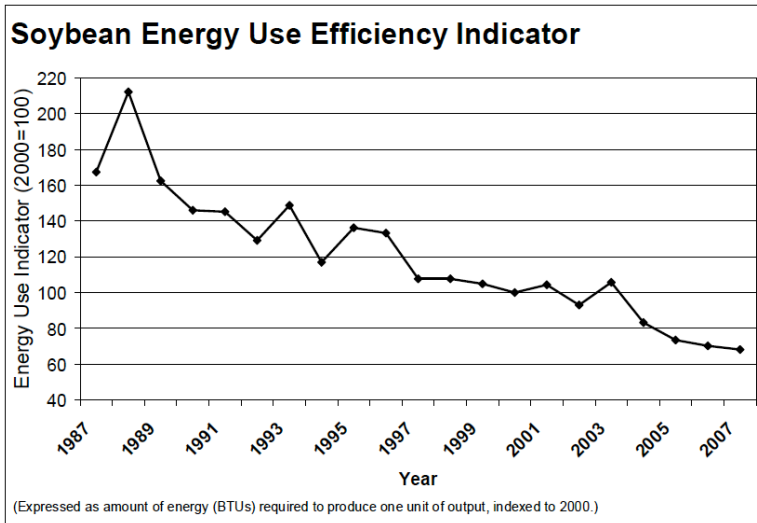


This initial effort, which began in 2009, is very promising. The information can be used to produce a spidergram that demonstrates the change in the environmental “footprint” for a specific crop over time for all of the five efficiency indicators indicates how this process can be used to track sustainability. Graphs that illustrate how each indicator changes over time can also be constructed using this information.



Field to Market continues to push forward with this important initiative. By logging onto their website at <http://www.fieldtomarket.org/>, producers can find many additional resources. A Fieldprint Calculator (found on the website) will help producers assess their sustainability performance using these five indicators. The news section of the website provides a link to the complete report on which this article is based. This work is crucial to

Hawaii's agricultural producers as they strive to participate in the State's effort to become sustainable by 2050.



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