

## Pathway to a Sustainable Food System

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We have a remarkable food system. Many farms produce twice as much food per acre as they did a half century ago and they do it with much less human labor. Meanwhile, supermarkets contain food from all over the planet at affordable prices. There is only one problem: This food system is not sustainable; we can't count on it to support future generations. Here's why:

- We are losing the productive foundation of our food system--our soil. Throughout the world, due to careless farming practices, we are essentially "mining" the earth's soil. The U.S. General Accounting Office reports that 84% of U.S. farms have soil losses greater than 5 tons per acre--they are losing soil more rapidly than new soil is forming. This is not sustainable.
- Our food system is running an energy deficit; the energy ratio is about 10:1. This means that, on average, about ten times more energy (fossil fuel) is used to cultivate, process, package, transport, and prepare the food we eat than is actually contained in that food. Indeed, just the energy required to transport our food (average food item travels 1200 miles before reaching our plate) sometimes exceeds the energy contained in the food, itself. This is wasteful and, ultimately, not sustainable.
- We are mining the lifeblood of our agricultural system--water. The Ogallala aquifer, underlying much of the American Great Plains is the single largest ground-water supply in the world. It took approximately 500,000 years for the water in the Ogallala to accumulate (think of it as "fossil" water), but we are now "mining" this water for irrigation purposes about 10,000 times faster than it is being replenished. This also is not sustainable.
- Our food system contaminates land, sky, and water. Agriculture's high reliance on fossil fuels contributes to global warming, while the excessive use of fertilizers and pesticides contaminates aquifers and wells. Herbicides such as Atrazine and Alachlor show up in about half of all wells tested in Iowa. Closer to home, excessive phosphates and nitrates pollute the Chesapeake Bay drainage.

In sum, our modern food system fails to adhere to the five core sustainability principles: 1) respect life, 2) live within limits, 3) value the local, 4) account for full costs, and 5) share power. What would a food system that honors these principles look like?

- Respect for life: Imagine a food system that didn't treat animals as "raw materials" to be packed into warehouses, injected with antibiotics and hormones, and stuffed with feed, but instead was committed to raising animals in healthy, humane settings (e.g., the way cows are generally treated on dairy farms in Pennsylvania).
- Live within limits: Picture a food system which was buttressed with government policies and programs that encouraged energy conservation, pesticide-free food production, family-based farming, and local marketing.
- Account for full costs: Imagine a community that refused to pass on to future generations environmental costs, such as soil erosion, and social costs, such as the impoverishment of farm families--a community that demanded soil health for farms

and economic wellbeing for farmers and took responsibility to pay more for food to ensure this.

- Value the local: Imagine a community deeply committed to conserving its farm land in sacred trust for present and future generations. Our county-wide discussions on farm-land preservation are a step in this direction.
- Share power: Finally, imagine a food system which was small-scale and participatory, rather than big and corporate. Family run partnerships between citizens and farmers, such as CSAs (Community Supported Agriculture), and Farmer's Markets are a first step in this direction.

If we hope to create a sustainable food system here in Centre County, we will all need to see ourselves as part of this system. Indeed, each dollar we spend on food is, in a very real sense, a political act. Our personal food preferences and buying habits can promote sustainability (by honoring sustainability principles) or they can undermine the health of our food system (by ignoring these principles).