

*NOTE: Dr. Hamm's whole presentation was videotaped and will be available via YouTube sometime soon. I'll pass along the link as soon as I receive it from the event organizers.*

Dr. Hamm has an undergraduate degree in biology and a PhD in human nutrition. He taught at Columbia University in New York City and Rutgers University in New Jersey before moving to MSU seven years ago. He is one of a dozen professional researchers and practitioners in sustainable agriculture and food systems that together comprise the "Mott Group" at MSU. The Mott Group coordinates a number of research and outreach programs throughout each of Michigan's counties aimed at advancing local, sustainable agriculture as a community and economic development strategy.

Dr. Hamm started his presentation by offering up a number of statistics on food production and food preferences in the United States and in Michigan, in particular, relating these data to the agriculture and food system sector in Rhode Island where possible. For example, Dr. Hamm reported that 360 billion pounds of food are needed to feed the 300 billion people who live in the US. The country does not produce this much food; we import more than we produce.

Climate change and water stress that is a result of climate change and a consequence of development and industrial agriculture practices will put even further constraints on US farmers' ability to feed the country. Most of our domestic produce comes from irrigated agriculture in California. California farmers are dependent on the melting of snow pack in distant mountains; snow pack is diminishing thanks to climate change, meaning even greater water stress in our most productive farmland in the future. Dr. Hamm asserted that there is a high probability that within 30 years, California will not be able to provide the US with as much food as it now does. Globally, water stress is very high and the global population is growing, creating greater need for land to house, employ and transport people and their goods and therefore taking land away from food production.

Dr. Hamm reported that the US is currently behind by 14 million acres of production vis-a-vis what national nutrition guidelines say Americans should be eating. In other words, if everyone actually ate the daily recommended amount of fruits and vegetables, grocery stores would be emptied very quickly and US farmers (and food importers?) would not be able to keep up. And yet, for many health and economic reasons--e.g., reducing obesity and its related diseases, promoting healthy development for children and healthy aging for adults, reducing health care costs by increasing health and well-being, etc.--getting Americans to eat better should be a national priority.

Given the many challenges confronting agriculture in the US and globally, both large and small-scale, Dr. Hamm promotes what he calls, "Locally Integrated Food Systems" (LIFS) as the best approach to dealing with these multiple, mutually-reinforcing challenges. The emphasis in this approach is on local, but it is understood that local production will not be able to meet local demand in most every circumstance.

Dr. Hamm's hierarchy for sourcing food is as follows:

### **The Locally-Integrated Food Systems Approach:**

- If an item is available from local growers/producers, then choose it.
- If an item is not available from local growers/producers, but there is some reasonable substitute for the item available from local growers/producers, then choose it.
- If no local substitute is available, then try to source the item only from those non-local sources that share your same values (e.g., organic, fair trade, etc.) in order to help promote these values across regions, countries and the globe.

Dr. Hamm reported on some research that he and his colleagues have done into the job creation implications of actually moving Americans closer to meeting the USDA nutrition guidelines. They found that we eat about half of what we should eat in terms of fresh fruits, vegetables and healthy animal products. Nutritionists call this the “public health gap.” Using Michigan’s population of 10 million as an example, filling this gap would require 37,000 more acres of production. Given the average small farm in the state is 25 acres or smaller, filling the gap would require nearly 1500 new farms and as many (or more) new farmers. Although this increase in farms and farmers is highly unlikely to occur, if it did, it would mean approximate \$211 million increase in net farm income and some 1800 off-farm jobs created as a result of these farmers spending their dollars in the local economy (other research has shown that people involved in agriculture spend a high percentage of their income locally.) [Since Rhode Island’s population is about 1 million, these numbers would be about 1/10<sup>th</sup> the size of Michigan’s.]

This research demonstrates the direct links between improving public health and reducing health care costs (by increasing consumption of healthy, fresh food) and enhancing economic vitality (by adding new farmers and other small businesses in local communities.)

Dr. Hamm also described how local agriculture can be enhanced by **season extension technologies (SETs)** such as high tunnel (hoop house) production. High tunnel hoop houses use multiple layers of heavy plastic to maintain adequate conditions for growing, without need of external (i.e., fossil fuel-based) heating sources. Studies have shown that the payback on such SETs are relatively short (2-6 years), mostly because the lengthened growing season allows farmers to meet the pent up demand for fresh, local produce that many parts of the country with short growing seasons (i.e., Michigan and the upper Midwest, New England, etc.) are experiencing and thereby increase their revenues and net income.

Dr. Hamm also addressed the question of who will farm in the future. The average age of the farming population is increasing across the country (in Rhode Island, the average farmer is now 56.) There are essentially three sources of tomorrow’s farmers:

- **Farm families:** This is a small and shrinking source of future farmers since so few of us now have direct experience of farming and those that do increasingly choose non-agricultural careers. To increase the number of individuals from farming families who choose agriculture will mean making farming a more lucrative, honored and attractive profession. This is happening to some degree, and new ideas for retaining farmers in the family are coming out of otherwise hidebound sources like Future Farmers of America (FFA). Dr. Hamm offered as an example of the latter the **Springport (MI) Future Farmers of America**, <http://www.springportffa.com/program.html> .
- **Immigrant farmers:** Farming in the US has always been heavily influenced by the influx of new immigrants who bring their own farming practices with them. This is still true today, though the countries of origin have changed considerably. Hmong farmers in MA and NJ are a huge influence on agriculture those states today, for example. Providing immigrant farmers with the training and assistance they need to adapt their practices to US growing conditions and to the food preferences of the American consumer (particularly the mostly Caucasian population that patronizes farmers’ markets) is key to supporting this source of new farmers.
- **Brand new farmers:** Both first generation or second-career farmers are a growing source of new talent in small-scale, local agriculture. Interest in sustainable agriculture is big and growing among college students across the country, and among a number of people who have lost their jobs (e.g., auto workers in Michigan) or who have retired but need or want to continue to work.

**Dr. Hamm stressed that different kinds of support, continuing education, mentoring and certification opportunities need to be developed for each of these sources of new farmers.**

Dr. Hamm then described the need to “seed economies” in order to optimize success for small farmers and small agricultural businesses, regardless of how people come to farming.

### **Seeding Economies – What’s Needed**

- **Training:** Business planning, testing out ideas for new products, understanding both the horticultural and/or animal husbandry sides of agriculture and the business side (including marketing.)
- **Land:** Both access to arable land and the capital to purchase it.
- **Capital:** Especially start-up capital—where can it be found? One example Dr. Hamm provided was the Administration for Children and Families’ Office of Community Services, which is the part of the US Department of Health & Human Services that operates the Assets for Independence Program. The AIP helps low-income individuals increase their personal assets through home ownership, higher education and/or through starting a small business. The **Assets for Independence Program’s “Individual Development Accounts” (IDA)** system works by requiring each enrolled individual to save \$1,000 that will be matched by \$1,000 from the federal government and another \$1,000 that will be matched by a private source, giving the individual \$3,000 in capital toward any of those key assets. ([http://www.acf.hhs.gov/programs/ocs/afi/fact\\_sheet.html](http://www.acf.hhs.gov/programs/ocs/afi/fact_sheet.html)) For small farmers starting out, this \$3,000 has been used to buy seed, equipment, and materials to help with direct marketing.
- **Markets:** Most new small-scale farmers need to focus on direct marketing since selling direct to consumers (including chefs) is where they’ll get their highest prices.
- **Information:** All farmers need access to the best available information on both agriculture and business in order to succeed.

At the same time that support is needed to increase the number of new farmers and to enhance their chances of success, there is a **need to increase the buying power of the lowest income people since they have the worst nutrition and health outcomes and the least ability to change their eating habits to include more fresh, local produce.**

According to Dr. Hamm, one relatively easy way to boost low-income populations’ access to farmers markets is to ensure that the markets allow electronic benefits transfers (EBTs), the electronic version of food stamps, WIC vouchers, and senior farmers market nutrition program checks. Many farmers markets do allow EBTs and where they do, research shows that more people on such food assistance use the markets.

The **Wholesome Wave Foundation** in Connecticut (founded by chef/author/food policy advocate Michel Nischan) has developed a program whereby philanthropic dollars double the value of the EBTs at farmers markets in Connecticut, Georgia, Massachusetts, Rhode Island, Virginia, Vermont, Washington DC, and San Diego, giving low-income folks more buying power and the farmers more customers from a wider range of income. Funder participants in this program include: the Betsy and Jesse Fink Foundation, Food & Wine Magazine’s “Grow for Good Campaign,” Newman’s Own Foundation and anonymous major donors. (<http://www.wholesomewave.org/index.html>)

Dr. Hamm ended by briefly reviewing other aspects of growing the locally-integrated food system:

- The farm-to-restaurant (or chef) movement

- Programs that link youth to local farm. The Michigan Youth Farm Stand program, for example, makes farmers markets more profitable for growers and less of a drain on their time and staff. The farmers sell their produce at wholesale prices to the Youth Farm Stand program. The youth, in turn, mark-up the price of the produce and sell it at the farmers markets. In this way, farmers get their produce to the local market, but without the time and financial costs of having to be at the market themselves, and youth get experience with retail marketing and running a small business within an agricultural context (as opposed to with farming itself.)
- Farm-to-school (or other institution). One of Dr. Hamm's fellow researchers has found that 83% of food service directors at Michigan's public schools want to buy from local growers. Using this research, folks are busy making connections between farmers and food service directors, improving communication between these groups.

### **Question & Answer Period**

Several of the questions and comments in the Q & A session centered on the *need for policies and regulations such as zoning, estate tax laws, right-to-farm laws, and land value assessment policies (i.e., "highest & best use" versus agricultural use) that enhance, rather than hinder, farming's chances of thriving in any particular community or state.*

Dr. Hamm mentioned a study by the Governor's office in Michigan that found that zoning rules were hampering the growth of agro-tourism in the state by, for example, prohibiting a farmer from putting up a sign on her land that she was in business as a B & B. He also described how cities like Detroit and Flint that have been decimated by the decline of the auto industry now have huge, contiguous tracts of land in the inner city that are either empty or have only dilapidated abandoned buildings on them (some 6,000 acres of land in Detroit is now owned by the city after being abandoned by its owners!) These would be fabulous sites for farming, but current zoning won't allow urban agriculture.

Another comment was on the increase in the number of women farmers. *Dr. Hamm cited research by the Organic Farming Research Foundation that confirms that there is a greater percentage of women being certified as organic growers than men in the country.*

*Another comment was on the need to develop scale-appropriate machinery to improve efficiencies and sustainability of small, sustainable farms so, for example, salad greens growers don't become disabled due to the need to stoop over rows of lettuces to cut them with scissors. According to Dr. Hamm, research and development of such scale-appropriate (and hybrid or non-fossil fuel powered) machinery is growing at European universities and research centers, but that much more could and should be done here.*