

Exploring Our Roots: A short history of Extension and the EMG Program

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The Beginning: Industrial Revolution Brings Progress, Agriculture Struggles

It wasn't so long ago that about half the U.S. population lived on farms. Now only about 2% of us do, and only 17% live in what are called "rural areas". 80 years ago, most of us would have been very familiar with the work of Extension. Now only about 1 in 5 would recognize the name. And therein lies the rub: Extension has never been just about agriculture, but even most of the 20% would say: "oh, yeah, that's 4H and the ag agents."

In the latter part of the 19th century, the industrial revolution is well underway and the cities are growing, but half of us still live on farms, and it has become, for the most part, a hardscrabble life. Agriculture in America is an unproductive system, built on tradition, superstition, and backbreaking toil. Families spend as much as 40% of their income on food, and the disparity between the quality of life on the farm and life in the city is getting larger, with a considerable proportion of the former suffering from poverty and illiteracy. Most farmers are suspicious of the new techniques being developed by the fledgling USDA, referring to them as "book farming." As a result, productivity is down, soils are being depleted in as few as 5 years, and food prices are going up. Something has to give.



By the 1870s the industrial revolution is in full swing and America's cities are bustling with activity



Poor crop rotation and lack of contour plowing are depleting soils at an alarming rate



Life is different on farms in late 1800s, where poverty and illiteracy grows

Morrill Act Forms USDA and Land Grant Universities

Early in President Lincoln's first term, Congress finally gets its act together, despite the fact that there's a war on, passing in the same year the "Organic Act" which formed USDA and the Morrill Act of 1862.

The Morrill Act establishes "Land Grant" universities in each State to educate citizens in agriculture, home economics, mechanical arts, and other practical professions.



Morrill Act



In

the first year as a land grant university (1889), NCSU boasts 72 students and 6 faculty.

The idea of a “land grant” is actually a practice we borrowed from Europe, in which the government provides a grant of federal land to be used for a specific purpose, or which can be sold to raise funds for that purpose. In this case, the specific purpose is considerably different from the liberal arts curricula of most institutions of higher learning. The implementation of the law leads to the formation of the North Carolina College of Agriculture and Mechanical Arts in 1887 and it’s first class matriculates in 1889.

Hatch Act Creates Agricultural Experimental Stations



Seaman Knapp

In 1867, the Hatch Act creates agricultural experimental stations and, in 1890, the second Morrill Act, aimed at the former Confederate states, provides additional funds, but with a catch: the states must demonstrate that race is not a criterion for admission. In those separate but not so equal times, this leads to the founding of our second land grant university, NCA&T. But the USDA, charged with raising productivity and bringing down the cost of food, is still grappling with how to get farmers to embrace the new practices being developed.

Enter one Seaman A. Knapp, felt by many to be the father of Extension. He is a physician by training, a college instructor, and comes to farming late, but is impressed

by the new farming techniques being developed in Michigan and Iowa. In 1902, he's dispatched to Texas to start a demonstration farm to help combat the cotton boll weevil. The farm is a successful cooperative venture with local farmers and the idea quickly spreads across the South.

In 1907, the USDA sends Cassius R Hudson to North Carolina to start a similar demonstration program. Unfortunately, he isn't received all that warmly by the local farmers who view him as just another Washington bureaucrat who is out of touch with "real agriculture."



Cassius Hudson

Under the rules of his employment he must be paid by the State, and the only federal support he is given is \$1.00 for mailing expenses. North Carolina grudgingly assigns him office space adjacent to the area where the corn and grain exhibit for the state fair is stored, and numerous, well-fed families of mice from next door visit regularly, much to the distress of the secretaries.

Clubs promote growing and food preservation practices

In 1908, to promote some of the new growing practices, NC State signs a memorandum of understanding with USDA to start Farmers Boys' Clubs, the forerunner of 4H. The success of the resulting "Corn Clubs" is still being celebrated 50 years later. In 1911, Jane S McKimmon is hired to develop girls' "Canning Clubs" and "Tomato Clubs" in response to an epidemic of food poisoning, due in large part to poor food preservation practices. This focus on youth is largely motivated by the USDA's repeated failure to persuade older farmers to adopt better practices. USDA begins to realize that raising a new generation of farmers more open to improved techniques may be part of the solution. And the strategy pays off.



Corn Clubs, the forerunner of 4H



Girls canning clubs help to combat food-borne illness

Smith Lever Act Extends Practical Applications of Research to Counties

The growing success (literally) of these programs leads to the passage in 1914 of the Smith-Lever Act, also known as the Extension Agriculture Act. Smith-Lever is designed “to aid in diffusing among the people of the United States, useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same.” The Act forms a partnership between the USDA and the land grant universities to extend the practical applications of research through demonstrations at the county level (e.g. your cooperative extension office), and requires the states to match federal funding on an equal basis.

Smith-Lever is still considered one of the most responsible and ingenious pieces of legislation ever passed by Congress. It provides the authorizing legislation to create an Extension presence at the county level and does so by shared funding with state and local governments.



Squanto, the 1st Extension agent?

There is some dispute about who should be recognized as being the first Extension agent. Seaman Knapp, of boll weevil fame, is one contender. But another popular candidate, given the mission of Extension, is Squanto, a member of the Patuxent tribe

who, legend has it, helped the Plymouth colonists through their first hard winter in 1621, by teaching them how to grow corn by adding a fish for fertilizer.

Core Principles of Extension Revealed Through Acts

The things that the implementers of the Morrill, Hatch, and Smith-Lever Acts learned in translating these laws into effective programs can be distilled down to a simple statement:

If you want to persuade people to undertake something, the effort needs to be: responsive to a recognized need or issue; cooperative and interactive; practical, well-demonstrated, and service-oriented. Throw in un-biased, research-based information and include a focus on youth, and you pretty much have the core principles of Extension – and the Extension Master Gardeners.

Extension During the Farm and Great Depression

Over the next several decades, there are several more forces that help to shape Extension. In the Farm Depression of the 1920's the focus changes from production to economic concerns and quality of life issues. Extension's ranks thin, emergency funds disappear and the program become more dependent on volunteers. This has the positive benefit of stimulating rural leadership, however, as well as the formation of local cooperatives.



The Great Depression obliges Extension to become more dependent on volunteers and local cooperatives

The next major test is the Great Depression and the Dust Bowl of the 1930's. Extension draws farm families into county, state, and national public affairs. Home economic programs focus on self-sufficiency. Ultimately, Extension is called on to manage several new agencies: initially the Farm Seed and Loan program and, later, the Soil and Water Conservation Service, Agricultural Adjustment Act, Rural Electrification, and Federal Housing Administration.

Volunteers Become Extension Backbone After World Wars

During and after the World Wars, Extension helps the country focus on food and fiber production for the war effort and volunteer leadership evolves. It is during this time that volunteers become the backbone of Extension.

WSU Forms the First Extension Master Gardener Program

In 1972, the Washington State Cooperative Extension, in response to a high demand for urban horticulture and gardening advice, forms the first Master Gardener program. By the end of the decade, the program has spread across the country to North Carolina. New Hanover county gets bragging rights for creating the first gardening hotline in 1979, but Wake County, NC graduates the first class of Master Gardeners in the same year. By the 2009 survey, there are more than 95,000 Master Gardeners nationwide, providing 5,000,000 hours of volunteer service annually.

So, How Does the Master Gardener Program Align with Extension?

One of the questions I had posed for myself when I began this research was: where does the Master Gardener program fit in to Extension? The answer I've come to understand is: just about everywhere. If you line the Master Gardener programs up against the core principles of Extension the match is clear:

- We *respond to the recognized needs* of waterwise strategies, avoiding invasive species, and minimizing fertilizer and pesticide use.
- We provide *cooperative and interactive* phone and email support, successful gardening clinics, speakers' bureaus, farmers' market assistance, and junior Master Gardener training.
- We offer *practical* help in best gardening practices and teaching courses like Vegetables 101.
- And we are *service-oriented* through our community gardening, Habitat for Humanity, and horticultural therapy programs.

Cooperative Extension Programs – Yesterday and Today

And, should you be tempted to subscribe to the notion that Extension has somehow become less relevant as America has become less rural, consider the kinds of programs that Cooperative Extension currently offers to counties.

In Community and Economic Development, Extension offers municipal official development, rural-urban interface studies, land use issues, public policy, and water quality programs. For families and youth, there are programs on health and food safety, managing family and household resources, strengthening family life, volunteer and leadership development, and improving the life skills of youth. In agriculture and natural resources, Extension manages programs in plant and animal science, fruits and

vegetables, turf and gardening, farm management, forestry and forestry products, and marketing agricultural products.

It would appear that Extension's responsibilities have broadened over the years. If you focus on what Smith-Lever wanted to happen in the area of food production: greater reliance on research; higher and more efficient production; and cheaper food, you might argue that we have succeeded too well. As far as the goals for its second century, we do have some hints: promoting local food (the current flagship program in NC), encouraging sustainable production (not depleting our resources faster than we can replenish them), and, at least, recognizing the potential adverse impacts of some of the research inroads we've made in the last few decades (pesticide and hormone residues, GMO, mono-cropping, and the narrowing of the gene pool).

Strong Belief in Equality of Individuals, Possibility of Change and Progress, Reliability of Scientific Information, Power of Education

If we focus on the underlying principle of Extension as improving the quality of American life, then the periodic adjustment and re-calibration of our goals is wholly consistent with a research-based organization. And, throughout its history, the guiding philosophy of Extension has remained unchanged: a strong belief in the equality of individuals, the possibility of change and progress, the reliability of scientific information, and the power of education.

Liberty Hyde Bailey, another of Extension's founders was a member of the Cornell faculty and dean of the New York College of Agriculture from 1903-13. He observed:

"Extension work is not exhortation. Nor is it exploitation of the people, or advertising of an institution, or publicity work for securing students. It is a plain, earnest, and continuous effort to meet the needs of the people on their own farms and in their localities."

And, since he was a teacher, he had the habit of asking his students: "What do you know today that you did not know the last time we met?"