

**Statement by
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Research, Biotechnology, and
Foreign Agriculture Sub-
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Mr. Chairman and Members of the Sub-Committee, I am pleased to have this opportunity to discuss the role and relevance of the Cooperative Extension System.

As we mark the one hundredth anniversary of the Smith-Lever Act of 1914, which established our nation's Cooperative Extension System, I believe that Extension is well-positioned to build on the successes of its first 100 years.

The Cooperative Extension System is funded through a partnership between the United States Department of Agriculture's (USDA) National Institute of Food and Agriculture (NIFA), state land-grant universities, and local governments. Extension deploys science-based solutions to address problems in food, agriculture, natural resources, family and consumer sciences, youth development, and community economic development.

Today, I would like to use a few examples to highlight how Extension helps American agriculture, consumers, youth, and communities succeed and strengthen our nation.

Technical education to growers and land managers

Whether it is a backyard gardener or a farmer, rancher, or forester managing thousands of acres seeking information to address their particular problem, they can rely on unbiased, science-based technical information available from their local Extension agent. Or they can crowd-source

knowledge via *eXtension*, the Extension system's national online interactive learning environment.

I'll cite two particularly compelling examples from California and Georgia, where technical information from Extension is making a difference.

In California, afflicted by the recent, severe droughts, Extension personnel are providing science-based information to help growers and other residents use their water resources more efficiently and effectively. With funding from NIFA, University of California Cooperative Extension refined conservation tillage practices to reduce water use on field crops through lower evaporation and higher irrigation efficiencies. At the same time, these practices have contributed to reduced production costs while maintaining or increasing yields. Similarly, with funding from NIFA's Specialty Crop Research Initiative program, University of California Cooperative Extension personnel are testing new varieties of crops for salinity tolerance. This is especially helpful as we look to increase our use of reclaimed and recycled water. Finally, using a combination of NIFA, state, and local funding, in cooperation with USDA's Natural Resources Conservation Service, University of California Cooperative Extension specialists have created a soil-based "app" for smart phones and tablets. This app can help users in California locate optimal locations for "groundwater banking" in times of excess water supply, thus making that water available in times of drought. The app can also be used to optimize irrigation of agricultural crops. This saves water while maintaining agricultural productivity.

The Georgia Blueberry industry has undergone explosive growth in recent years—in just over a decade, farmgate value of blueberries in the state has increased from \$22 million in 2000 to more than \$150 million in 2012. Research and Extension at the University of Georgia—funded by NIFA—has been a significant contributor to the growth of this cash crop. As University of Georgia researchers developed new cultivars, new pest management and harvest techniques, and ways to add value to grower marketing, Georgia Cooperative Extension helped growers turn those advancements into profits. Researchers have developed varieties that ripen quicker, get bigger, and are more marketable. One blueberry variety developed by the University of Georgia, *Titan*, when grown under suitable conditions can often grow to exceed the size of a quarter! Another recently developed University of Georgia variety, *Early Dawn*, offers the earliest

maturing blueberry variety for commercial growers in South Georgia. Cooperative Extension funding has helped to demonstrate the advantages of these varieties and to provide other science-based information to growers, guiding them through variety selection and dozens of other grower decisions that represent the difference between a farm profit and loss.

Consumer and Family Education

In addition to producers, Cooperative Extension educates consumers, families, and communities. For example, NIFA's Expanded Food and Nutrition Education Program (EFNEP) currently operates in all 50 states and in American Samoa, Guam, Micronesia, Northern Marianas, Puerto Rico, and the Virgin Islands. Across the nation, EFNEP reached 130,485 adults and 479,398 youth directly and nearly 400,000 family members indirectly in FY 2012. Obesity, poor health, and limited physical activity are major health concerns for many, and particularly so for limited resource families. EFNEP has improved the health and well-being of limited resource families and youth through better knowledge, skills, attitudes, and changed behavior regarding nutritionally sound diets. Additionally, EFNEP programs are contributing to public savings; for example, research shows that better health is associated with reduced health care costs, reduced absenteeism from work, and reduced dependence on emergency food assistance.

Community Economic Development

Prosperity and economic security for individuals and families, farmers and ranchers, entrepreneurs, and consumers across the country are key to a strong economy. NIFA funding and program leadership provide for Cooperative Extension activities that enable Americans to make sound financial management decisions, discover new economic opportunities, develop successful agricultural and nonagricultural enterprises, and take advantage of new and consumer-driven markets.

For example, Cooperative Extension helped Oregonians launch new food businesses through a program called *Recipe to Market*. This program helps local entrepreneurs become marketable to well-established companies. Throughout the four-month Recipe to Market program, each participant builds a business plan, helps design a marketing campaign, and works one-on-one with local coaches to turn their dream into a profitable local business. In one rural, isolated

coastal community, seven participants completed the first offering of Recipe to Market, which enabled them to launch three new businesses. These three businesses now generate almost \$1.2 million in combined annual gross income and provide employment for up to a dozen employees. The governor of Oregon has likened creation of such economic opportunity in rural communities to be equivalent to creating hundreds of jobs in metropolitan areas such as Portland.

A team of researchers and Extension specialists led by Cornell University is working to develop and test broccoli cultivars suited to the climate and soils from Maine to Florida and westward into Ohio and Tennessee. Estimates indicate that Eastern broccoli production will result in a 66-percent reduction in fuel used to transport the crop to market. This will save close to 2.3 million gallons of fuel per year and reduce carbon dioxide emissions by more than 51 million pounds annually. The team expects that growers in the region will see increased profits of \$3,000 per acre per year, which translates to increased profits of \$40 million. The total annual economic impact on rural economies will be almost \$90 million.

The nation's largest youth development and empowerment organization, 4-H

The Cooperative Extension based organization reaches more than 7 million 4-H youth in urban neighborhoods, suburban schoolyards, and rural farming communities. Supported by university-backed curricula, 4-H'ers engage in hands-on learning activities in the areas of science, healthy living, and food security. These future leaders are developing intellectual curiosity along with skills in math, science, and technology, as a result of hands-on learning in 4-H programs developed by our nation's land-grant universities. While Cooperative Extension professionals oversee the 4-H programs, it is local community volunteerism that really contributes to the success of the program. More than 500,000 4-H volunteers are helping to create life-changing experiences for young people in every county and community—all 50 states, U.S. territories and on military installations worldwide. In 4-H, farm kids, city kids, and kids of every race, economic, and family situation are acquiring the skills that will help them become the capable future workforce our nation needs. They're also developing the social values that lead to better futures. Research has demonstrated that compared with youth not involved in 4-H programs, 4-H'ers are twice as likely to go to college, twice as likely to pursue careers in science, and three times as likely to give back to their communities. More than 60 million of our nation's most

successful statesmen, business leaders, scientists, and academics credit 4-H with setting them on a positive, productive path. This includes current members of the United States Congress!

Resources

Historically, the two main sources of federal funds that provide broad support for the Cooperative Extension System are from two line items in the NIFA budget: Smith Lever 3 (b&c) and 1890s Extension. These federal funds are matched by state and county funds. During the last several years, Cooperative Extension efforts across our nation have been strengthened with locally leveraged private funding sources, including fees. Additionally, NIFA has worked to integrate Extension directly into research projects that seamlessly deliver results to end-users. NIFA's largest competitive grants program, the Agricultural and Food Research Initiative (AFRI), is one such program that funds integrated research, education, and Extension activities that provide science-based solutions to address major agricultural challenges of national, regional, and multi-state importance. For instance, last week, Secretary Vilsack announced a new, five-year, \$30 million water grants initiative through the AFRI program that will provide America's farmers and ranchers solutions to serious agricultural water challenges and improve the quality and quantity of our water resources.

The Future

I believe America's global preeminence in the food and agricultural enterprise is attributable in large measure to the effectiveness of the Extension system, which translates discoveries into solutions to address problems faced by end-users. This system, unparalleled and the envy of the world, is emulated by many; even today, many from around the world come to America to learn about Extension.

In recent years, some have questioned—in the age of Google and Wikipedia—the need for this public enterprise called Cooperative Extension. However, Extension, with its service to every one of the 3,100 plus counties, parishes, and boroughs of our nation, has demonstrated over the last 100 years its ability to morph itself to provide evidence-based, third party validated, unbiased information in addressing problems faced by generations of the public. The challenges our nation and the world face in the context of the burgeoning population—from meeting food

security to dealing with droughts and other environmental constraints, public health issues, youth, family, and community well-being, and economic well-being—our nation's Cooperative Extension System is ready and available to address the same and to help America continue to maintain its global preeminence over the next 100 years.

Mr. Chairman and Members of the Sub-Committee, thank you for this opportunity to speak about Cooperative Extension in the United States. I look forward to working with you and the others around our nation to continue to protect the interests of farmers, ranchers, consumers, youth, and communities across America through a vital and effective Cooperative Extension System.