

# SCIENCE & EDUCATION Impact

Benefits from USDA/Land-Grant Partnership

---

## Shrink to Fit

Super-sized techniques for small acreage farms.

*Small-scale farming, land-use changes, and tobacco's decline all call on the USDA/land-grant partnership to teach both new and long-time farmers how to make the most out of their small and mid-sized tracts.*

### Payoff

- **Marketing to niches.** North Carolina A & T Extension helped small land owners and consumers in neighboring towns connect through marketing locally grown produce to farmers' markets. Small farms near Plymouth and Creswell were able to sell greens worth more than \$15,000 during the November-December holiday season. **Clemson** researchers help South Carolina collard greens growers reduce pesticide cost and increase yields through regular Integrated Pest Management (IPM) monitoring. **Washington State** developed its Cultivating Success program to provide planning and decision-making tools, research skills, and support necessary to develop sustainable small-acreage agriculture enterprises. The program has helped 50 farmers and ranchers improve production and marketing efficiency, increase farm profits, and improve quality of life. **Florida A&M** Extension designed demonstration plots to test the adaptability and market potential of alternative tropical crops such as pigeon pea and habanero peppers. The North Florida Cooperative, an affiliate of the program, provided seven refrigerated trucks so farmers could get produce to more lucrative distant markets; 27 small farmers and three cooperatives are enrolled with the program. One hot-pepper farmer used containerized production (one of the newly introduced techniques) and realized an additional gross return of more than \$15,000. **Maine** Extension's Meat Goat Discovery program found new markets for 50 meat goat producers by connecting them with ethnic buyers who require nonstandard slaughter practices.
- **Small farms in the big West.** Extension at **Colorado State** helps more than 20,000 landowners manage 1 million acres in small farms, "ranchettes," and tracts of land ranging from one to 100 acres. Last year, nearly 6,600 of these small-acreage owners requested land-management assistance. Under the leadership of **Nevada** Extension, a team from **Alaska, Arizona State, California, Colorado State, Idaho, Montana State, New Mexico State, Oregon State, Utah State,**

**RESEARCH,  
EXTENSION AND  
EDUCATION  
AT WORK**

Search for more at <http://www.csrees.usda.gov/impact>

# SCIENCE & EDUCATION Impact

## Benefits from USDA/Land-Grant Partnership

**Washington State**, and **Wyoming** spent 18 months developing a curriculum — Living on the Land: Stewardship for Small Acreages — to teach small acreage owners how to attain their property goals while protecting soil, water, plant, animal, and other natural resources.

- **The down-sizing dilemma.** In Texas, **Prairie View A&M** Extension set up programs targeting small, limited-resource beef producers with 50 or fewer cows and helped them understand hay production versus hay buying, testing hay for protein content, cow feeding equipment needs, and to maximize use of current pastures. **Arkansas- Pine Bluff** Extension programs help small family farms that constitute more than 92 percent of all farms in the state. The program updated cultural practices and implemented new vegetable crop production strategies. Farmers cut production costs by more than 85 percent after learning to use local cotton seed hull and barnyard manures to replace commercial fertilizers. **South Carolina State** uses undergraduate biology and chemistry students to collect soil sample data from the state's farms. Students learn valuable job skills, and farmers get the information they need to increase yields and reduce pesticide and fertilizer use.
- **Life after tobacco.** Kentucky is the most tobacco-dependent state in the country, so **Kentucky** Extension has helped farmers expand their options with research on improved growing and marketing strategies for fresh vegetables. Profitability of apple orchards and fresh market cabbage has been enhanced through integrated pest management. Bell pepper acreage has increased 30 percent in the past two years. **Kentucky State** researchers developed a program to grow freshwater shrimp in farm ponds to further reduce the state's dependence on tobacco. Economic analyses indicate net incomes of between \$2,500 and \$4,500 per acre for freshwater shrimp. So far 18 farmers have adopted the practice, bringing the total additional income derived from shrimp to about \$185,250 annually. **Ohio State** is also experimenting with commercial freshwater shrimp aquaculture. Another **Kentucky State** program involves developing a commercial pawpaw market. More than 5,800 trees have been established in Kentucky, West Virginia, and Maryland over the last three years.

Overall, Kentucky farmers enrolled in the Small Farm Program have increased their income by an average of \$10,000. **North Carolina A&T** Extension helped former tobacco farmers switch to double-cropping strawberries and melons. Others are switching from tobacco to profitable vegetable and flower production. One farmer used an empty tobacco transplant greenhouse to produce 870,000 sweet potato transplants, raising his income by \$31,000. **Virginia State** Extension has also been identifying the most promising alternative enterprises, analyzing and testing profitability, and developing/distributing budgets containing cost and financial return information to former tobacco farmers. So far, 60 former tobacco farmers have established new farm enterprises, including 15 who are netting \$1,000 per acre or more producing and locally marketing seedless watermelons. **Tennessee State** has been helping small farmers plan and implement their investments in various agricultural enterprises. Shiitake mushrooms, an \$820 million import market in the United States, have been identified as a potential alternative crop for small woodland owners and tobacco farmers.



**Cooperative State Research, Education,  
and Extension Service**  
United States Department of Agriculture

Cooperative State Research, Education, and Extension Service in cooperation with the Extension Committee on Organization and Policy, the Experiment Station Committee on Organization and Policy, the Academic Programs Committee on Organization and Policy, the International Programs Committee on Organization and Policy, and the Louisiana State University Agricultural Center.

The United States Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.)