

SCIENCE & EDUCATION Impact

Benefits from USDA/Land-Grant Partnership

Agricultural Alternatives

Boosting value and profit for small farmers.

If family farms are to survive, producers must find new ways to be profitable. The USDA/Land-Grant partnership helps farmers increase profits by exploring new crops, new markets and novel methods of producing crops and live-stock. Ultimately, these efforts will help sustain small and medium-sized farms while also providing consumers with new, wholesome products.

Payoff

- **Berry good.** Blueberries are popular, but the industry must continually expand its production and markets. **Rutgers** developed True Blue, a blueberry iced tea that may grab a share of the \$160 billion U.S. nonalcoholic drink market. **Mississippi State** Extension is encouraging blueberry production as an alternative enterprise and expects blueberry acreage in one county to increase by 125 acres over the next two years, providing a potential annual economic impact of more than \$500,000. **Georgia** Extension also is promoting berry production. Last year, five new growers added 200 more acres of blueberries in one county, translating to an estimated \$1 million impact on the local economy. Blackberry production is predicted to contribute \$600,000 annually to the same county's economy.
- **To market, to market.** Farmers need more than just new crops. They also need new markets. **Kentucky** Extension helped Mennonite and Amish farmers establish the Fairview Produce Auction in 1997, which reaped more than \$100,000 in sales its first year and had sales totaling more than \$650,000 in 2001. **Florida A&M** connected small fruit and vegetable growers to new markets. As a result, Florida's small farmers now provide more than 60,000 pounds of fresh produce to 20 school districts in Florida, Georgia, Alabama, Mississippi and Arkansas.
- **Herbal remedies.** The multibillion-dollar herbal product industry holds great potential for small farmers. Commercial production of echinacea, a plant that enhances the human immune system, is increasing thanks to basic production research at **Oklahoma State** that has identified chemical weed controls that may soon be registered for use on echinacea. **South Carolina State** researchers are identifying echinacea species best-suited for their region, providing farmers a new crop worth twice as much as traditional crops, such as corn and soybeans.

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American Samoa researchers are exploring new uses and markets for medicinal plants, which ultimately will boost Samoa's economy.

- **Planting ideas.** Many universities are identifying new plant varieties that can expand cropping options. **Kentucky's** work with seedless watermelons led a group of farmers to plant 10 trial acres of the crop, which grossed \$30,000. The growers plan to expand the planting in 2003. **Florida A&M** is testing alternative tropical crops, such as Habanero peppers. One hot pepper grower who followed A&M's recommendations grossed more than \$15,000 in his first year of production. **Alaska** is examining peony cultivars for the international cut-flower market.
- **Reining in livestock options.** **Alaska's** researchers are making reindeer at home on the ranch and the range with studies aimed at improving meat and antler production. A reindeer diet they developed using locally produced fish meal helped reduce one rancher's feed costs by half. **Wisconsin** Extension helped more than 400 dairy farmers decide whether to modernize their operations. Many of the dairy farmers who participated saved 25 percent to 50 percent on upgrades. One producer saved more than \$60,000 by turning an old stall barn into a milking center; another producer saved \$150,000 by retrofitting an existing facility. **Nevada** researchers seeking a slice of the \$36 billion breakfast industry developed beef bacon, ham and sausage that are selling well in the state's grocery stores.
- **Garbanzo growth.** **Nebraska** research on chickpeas (garbanzo beans) helped establish it as a new high-value crop. Just five years ago, chickpeas were virtually unknown in Nebraska. Today more than 10,000 acres of chickpeas are produced in the state, providing twice the gross return on investment than the region's traditional millet and wheat crops.
- **Getting your goat.** Expanding ethnic markets are increasing the demand for goat meat in many states. **Florida A&M** research identified strategies that increase carcass yields by 15 percent and improve weaning weights by 12 percent. **Langston University**, a leader in goat research, is also working with Oklahoma's Native American tribes to use meat goats for controlling invasive plant species.

- **Oiling the "essential" skids.** **Montana State** is studying market opportunities for essential oil crops by identifying new markets. Their work already has added an estimated \$3.8 million in market options for dill and mint. In addition, they have targeted horse care products made from essential oils as a new outlet that may provide another \$2.2 million in income to Montana producers.
- **The pawpaw patch.** **Kentucky State** researchers are reviving an old crop – pawpaws. Research on varieties, orchard management and marketing ideas is spawning a new industry. Commercial plantings of some 5,800 trees are now established in Kentucky, West Virginia and Maryland. Pawpaw ice cream is selling for \$10 a gallon in groceries and is featured in a Louisville gourmet restaurant.
- **In the swim of things.** Aquaculture offers numerous new markets. **Delaware State** developed management practices for species of bait minnows well suited to cold Atlantic waters. **Virginia State** is exploring ways to raise rainbow trout in farm ponds for sale to consumers or as bait. **Kentucky State** research results helped that state's growers show profits of \$2,000 to \$5,000 per acre of freshwater prawn farming last year. **Ohio State** researchers are successfully raising freshwater Malaysian prawns in small ponds, and **Nebraska** scientists are raising prawns in empty livestock buildings, offering new uses and profit potential from unused space.



**Cooperative State Research, Education,
and Extension Service**
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