Colorado State University Cooperative Extension and Agricultural Experiment Station collaborations are helping Coloradans

- reap the benefits of improved agricultural productivity supported by Land Grant University research and education;
- benefit from Colorado’s contribution to the nation’s high-quality, low-cost food and fiber supply.

Supporting Colorado Agriculture Through the Extension-Experiment Station Partnership

Coloradoans have much to be proud of when it comes to agriculture. The state ranks 17th nationally in cash receipts and is a top five producer of potatoes, sunflowers, winter wheat, carrots, lettuce, onions, cattle on feed, fed cattle, and sheep. Agricultural businesses directly support over 105,000 jobs and generate sales of almost $10 billion annually. Every job in agriculture indirectly generates nearly two more jobs elsewhere in the economy, and every dollar of agricultural product sold yields another dollar of sales to other businesses.

In the last 50 years farmers and ranchers in the United States have increased productivity by almost 2% every year. Remarkably, these advances were achieved with no increase in the real cost of inputs. As a consequence, the U.S. now produces two and a half times more food and fiber while spending slightly less on land, labor, and physical inputs than it did fifty years ago. Most of this prosperity is due to research and development. Colorado State University’s partnership between the Agricultural Experiment Station and Cooperative Extension is an investment in research and education that assists producers in managing crops and livestock and the pests and diseases that challenge them, and developing improved management strategies, viable markets and value-added products in order to maximize return on their efforts.

The Costs...

- Staying in business as a rancher or farmer is a challenge at best...the startup costs of land, buildings and farm equipment are staggering...nearly $820,000 for an average farm in northeast Colorado; coupled with average annual production costs of $280,000, narrow profit margins, and higher-paying jobs elsewhere, young people are discouraged from returning to family farms.
- Data show that 15% more agricultural producers obtained off-farm employment in 2002; one third of farm operators are estimated to have worked two hundred days or more off the farm—a 22% increase from the mid ’70s.
- Predictions are that 15% of Colorado farmers (approximately 4,000) will exit agriculture this year due in part to low profit margins, other economic considerations...and aging farmers—nearly 30% are 65-years-old or older, and the average age of farm operators increases each year—last data show it’s about 55 years of age.
The Payoff...

The Colorado Agricultural Experiment Station-College of Agricultural Sciences-Cooperative Extension partnership has provided support to the state’s agricultural industry since the early years of Colorado State University. This joint research, teaching and outreach education effort has resulted in such agricultural developments as:

- **Improved crop varieties**—More than half of the wheat grown in Colorado is from varieties developed by CSU that provide higher yields and pest resistance; Russian wheat aphid resistant wheat contributes about $8.8 million per year to the agricultural economy by preventing yield losses and eliminating insecticide sprays. Colorado ranks second in the nation for fresh market potatoes—77,000 acres that produce 30 million 100-pound bags each year with a market value of $117 million; CSU potato cultivars are estimated to enhance that value by $11-12 million annually due to improved yield and quality.

- **New farming practices**—Education and research efforts have reduced tillage procedures, increased surge irrigation, reduced erosion and enhanced water absorption in the Arkansas River Valley, efforts that help farmers cut costs through more efficient irrigation and reduced sediment and salt returned to the river.

- **New tools and technologies**—Field studies using “precision agriculture” technologies such as yield monitors, remote sensing, global positioning systems, and geographic information systems have helped producers improve soil composition, water application, weed, insect & plant disease management, and increase yields.

- **Solutions to problems**—University research and education are working to provide solutions to broad issues such as water quantity & quality, food safety, management of natural resources, and sustaining agriculture.

Traditional and non-traditional agricultural businesses in Colorado directly support over 105,000 jobs and generate sales of almost $10 billion annually; every job in agriculture indirectly generates nearly two more jobs elsewhere in the economy, and every dollar of agricultural product sold yields another dollar of sales to other businesses.

(Colorado Agricultural Statistics Service, 2002)

National studies have shown that investments in agricultural research and extension programs pay off—returns have been shown to range from 30% to 90% for research and 23% to 45% for extension.


Increased agricultural productivity—thanks to America’s land grant university research and development—has reduced food expenditures for American consumers to only 11% of their income, allowing them more discretionary income for non-agricultural purchases than people in most other countries.

(US Economic Research Service, 2001)

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