

## Preserving the Heritage of the West

**An innovative graduate program at Colorado State University aims to prepare land managers for the future by taking a holistic approach to resources.**

**Compiled by Kindra Gordon**

In the West, particularly in Colorado, economic development and population growth are proceeding at a rate that is very different from that of the past 50 years. The numbers speak for themselves: Population growth in Colorado currently is occurring at twice the national average, with an estimated 1.5 million new residents arriving in the next 20 years. Agricultural land in Colorado is being converted into housing, shopping malls, roads and other urban uses at a rate of 10 acres per hour, 240 acres per day and 90,000 acres per year. Land in Colorado utilized in agriculture has declined 12 percent since 1960, while population has roughly doubled.

With those urban changes taking place, there has in turn been new pressure on environmental systems and competition for land use—and land managers are faced with being knowledgeable about a broad spectrum of topics from animal production to public policy.

To assist resource specialists in working in the changing landscape of the West, Colorado State University has designed a new graduate program that takes an integrated approach to land use management.

“The emphasis is not range or ranch management but the overall management of the land resource,” says Kraig Peel, an animal sciences professor who is coordinating the program.

“Academic research and education programs directed toward ranching and other resource and land-use professions traditionally have focused on narrow disciplinary confines rather than looking at the entire system of land-use management and issues,” says Peel. “Colorado State focuses on looking at the way land and resources can be and are used—ranches, public lands and non-ranching private uses—in a context that incorporates all of the influences on land.”

Peel says this new approach toward land management will be increasingly important to aid in preserving ag lands that are still in production as well as help preserve open space. “The only way I can see to maintain these lands is to make sure they are profitable whether through traditional agriculture or non-ag uses.” He says a holistic approach toward resources is also important as the recreational demands of people in the West continue to boom.

To that end, the CSU program, offered for the first time this fall by the university’s Western Center for Integrated Resource Management, is one of the first educational programs in the nation to approach all land-use and resource-management factors with integrated courses and instruction. It’s a merger of disciplines from within four colleges: Natural Resources, Agricultural Sciences, Veterinary Medicine and Biomedical Sciences, and Liberal Arts.

The program is designed with the belief that successful land management in the current environment requires and understanding of how the land, water, animals, hu-

### **Ag Lands Important**

Despite the booming urban development in Western states, agriculture (especially livestock production), is still a primary foundation of most Western states’ economies. For example, almost 50 percent of Colorado’s 66.4 million acres of land is used for animal agriculture. Sixty-nine percent of Colorado’s agriculture receipts in 1999 were generated from the livestock industry, representing an income of \$3.01 billion. Agribusiness provides more than 105,000 jobs which is 4.4 percent of the state’s total and generates nearly \$16 billion.

Moreover, Colorado is home to more public land than any other state in the nation except Alaska. More than 25 million acres of national forests, national parks, state parks and Bureau of Land Management land are traversed by 11,000 miles of recreational trails. Public lands and resources are utilized in wide variety of ways, such as skiing, hunting, whitewater rafting and fishing. Recreational and agricultural activities are mainstays of Colorado’s economy, with hunting and fishing expenditures contributing more than \$2.5 billion to the state’s economy in 1999. Public land in Colorado also is extensively utilized for agricultural activities such as grazing, with an unusually high percentage of Colorado’s public land used for agricultural production (42 percent versus 30 percent nationally).

mans and finances interact to influence long-term sustainability and profits, according to Peel.

CSU's new program was designed with input from agricultural producers and other professionals in related fields whom overwhelmingly requested more in-depth, practical education that could be directly applied to real-world situations. Courses include management, business, land-resource management, animal management and production, grazing and public policy emphasis.

Some topics addressed by the new program include an in-depth look at the influence of urban growth on livestock ranching, as well as, how diversification of land use to include wildlife and recreational activities may become more critical to long term profitability and sustainability of ranching - and resource management issues to consider from such diversification.

### New Teaching Format As Well

In addition to being among the first programs of its kind, the graduate-level classes also are offered in a new modular format that allows students to complete a three-credit course in two weeks. The format is designed to fit the needs of full-time and part time students as well as professionals or producers who may want to attend just a few classes to enhance their skills. Each course is intensive and requires full-time attendance for six hours a day on weekdays for the two-week period.

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"There aren't many master's programs in these disciplines that aren't research intensive," said Peel. "It's also difficult for professionals to fit graduate school into their schedules if they don't want to go full-time, so the format of this program provides an additional benefit."

Peel reports that 15 full time students as well as 10 part time students enrolled in the courses this fall, and he says there has also been considerable interest from government agency personnel in the area.

While a primary goal of the CSU program is to train resource managers with a holistic approach to ensure long-term sustainability of the ranching industry, it's equally focused to managers of public lands, or landowners with non-ranching uses.

Peel points out that there is a great need for public land managers who have an interdisciplinary background and an understanding of issues involved in private uses of neighboring land, as well as public land policy. Finally, a growing proportion of agricultural lands are being purchased by corporations and absentee landowners which increases the need for well trained resource managers.

*For more information about this program, visit <http://www.wcirm.colostate.edu> or contact the Western Center by phone at (970) 491-1610.*

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