

Profitability Research Assists Ranchers

Manual and workshop developed through producer input

By Joanne Littlefield

Continued drought conditions have hit Southwestern ranchers hard. Deteriorating range and forage has forced many to reduce their herd numbers, in some cases to zero. As producers struggle with range problems and subsequent economic impacts of extended drought, information that enables ranchers to make better decisions is essential to their ability to bounce back when range conditions improve and herd numbers can be increased. A poor financial plan can limit restocking as much as poor range condition can.

Many Arizona ranchers are preparing long-term plans that will help them be profitable and preserve their way of life. A research-based manual and workshop available through the Department of Agricultural and Resource Economics (AREC) in the University of Arizona College of Agriculture and Life Sciences offers assistance in three management decision areas that influence the economic success of a ranch: range condition, livestock productivity, and financial profitability.

The goal is to help ranchers simultaneously evaluate interactions among these three areas to develop more viable economic game plans for ranching.

Designed by Russell Tronstad, associate specialist, and Trent Teegerstrom, research specialist, both from AREC, the package includes a manual with a computer software curriculum "Planning for Profitability: The University of Arizona Ranch Management School." Input from ranchers, county extension faculty and Arizona Cattle Growers Association staff has been used to build and modify this material.

"This curriculum links biological productivity, market prices, and input costs so that ranchers can estimate the financial impacts of management decisions," Teegerstrom says. The software quantifies the financial impacts of feed supplements, alternative drought mitigation strategies, and alternative calf sale weights and dates.

For example, utilizing this software curriculum, Tronstad and Teegerstrom determined that calves weighing 450 to 550 pounds should be targeted for sale in May. The May sales were found marginally more profitable than November sales in large part because cull cow prices were higher in May than in November. The team recently published these results in the September 2003 issue of the *Journal of Range Management*.

The original Ranching for Profit software template was created in the mid-1990s as a tool for ranchers to evaluate management strategies accurately. Tronstad and Teegerstrom have continued to augment and modify this software and supporting curriculum to adapt to the needs expressed from the livestock community.

"For example, the recent drought forced many ranchers to evaluate the decision to exit or restock the ranch," Tronstad says. "We built into this curriculum the ability to analyze how a forced destocking from a subsequent drought would impact the cumulative returns associated with alternative restocking paths. The system also provides computer decision support for evaluating alternative drought mitigation strategies, cow-culling strategies, and a diagnostic tree of costs and returns on a per-exposed-cow basis."

The *Planning for Profitability* financial management information is available to download free as pdf files by linking to the Arizona Ranchers' Management Guide cals.arizona.edu/AREC/pubs/rmg/ranchers.html

You can also purchase a hardcopy of the entire guide from CALSmart by going online to cals.arizona.edu/pubs/.

The Ranchers' Management Guide includes a section on drought assistance programs and tax implications related to destocking and restocking livestock from drought.



Lynn Ketchum

He says ranchers can enter numbers that reflect a baseline for their operation, and then evaluate how alternative management strategies or policies imposed on them will affect their profitability per exposed cow or hundred-weight of steer calf sold.

It is difficult to place a common unit across ranches to measure profitability, the scientists say. Multiple revenue sources are obtained from a ranch over different time periods (e.g., cull cows, cull bulls, heifer calves, steer calves, yearling steers), fertility and calving percentages vary by ranch, and ranches sell calves at different sale weights. Based on the research, the educational program was developed to enable livestock producers to pinpoint problem cost and revenue areas throughout the year and adjust their management plans accordingly. Predictions about weather and price changes could then easily be compensated for.

“Adjustments in one component of the spreadsheet program are linked to others,” Tronstad says. “Bringing these research tools to key clientele through hands-on workshops throughout the state has proved to be quite helpful.”

“Our main focus during these computer workshops has been on the ranch profitability spreadsheets, and decisions made from these spreadsheets,” Teegerstrom adds. Through the acquisition of a 20-machine mobile wireless computer lab, they have been able to deliver hands-on computer workshops to more than 400 ranchers and agribusiness professionals in recent years—approximately 80 percent of Arizona's industry based on total market sales. The computer lab was facilitated in 2002 through a USDA/RMA grant acquired by the scientists.

They have offered profitability workshops in Cochise, Santa Cruz, Graham/Greenlee, Coconino and Yavapai counties in Arizona; in St. George, Kanab and Fredonia, Utah; and at the Southwest Indian Agriculture Association (SWIAA) meetings in Arizona and Nevada. Sessions have been presented to the Havasupai, Navajo, Hopi, San Carlos Apache and White Mountain Apache.



Trent Teegerstrom

Financial management workshop conducted by associate specialist Russ Tronstad.

The educational program and materials were developed through a joint effort of the University of Arizona Cooperative Extension, Agricultural Experiment Station, Agricultural and Resource Economics Department, Animal Sciences Department, Agricultural Education Department, and School of Renewable Natural Resources; and USDA/Risk Management Agency, Gila Cattle Growers and Yavapai Cattle Growers.

In 2003 a partnership was developed with the Arizona Cattlegrowers, Arizona Farm Bureau, and Southwest Farm Credit to offer joint workshops on finance utilizing both the *Planning for Profitability* curricula and the partners curricula.

Teegerstrom notes that some agricultural producers may be able to obtain new ideas about management strategies just by going through the planning process.

“We also offer ‘crop solver’ software for farmers that provides an optimal crop mix subject to water, labor, risk, and other resource constraints for up to 20 different crops,” he says.

A paper describing experiences and insights they have obtained in delivering computer workshops will be presented at the session “Implementation and Impact of Modern Electronic Technologies on Extension” at the 2004 Allied Social Sciences Association conference. The paper is also scheduled to appear in the August 2004 issue of the *American Journal of Agricultural Economics*. ☐

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