Low-Input Grassfed Livestock Production in the American West: Case Studies of Ecological, Economic, and Social Resilience

By Matthew K. Barnes

When you're taking a product from the land … all of the energy that we make use of comes from the sun,” rancher Dennis Moroney reminded the audience at “Sustainable Rangelands Through Low-Input Grassfed Production” during the 2010 annual meeting of the Society for Range Management (SRM), cosponsored by the American Grassfed Association (AGA). The ecological resilience, economic viability, and social sustainability of grazing lands and the livestock industry can be maximized through grassfed livestock production, which relies on biological diversity and ecological complexity with minimal external inputs.

Grassfed livestock production keeps land in permanent vegetation, rather than annual crops that are harvested, trucked, and fed to animals in confinement. Potential benefits of shifting land use from cropland and feedlots to perennial pasture include reductions in soil erosion, pesticide and fertilizer use, and increases in biological diversity, soil fertility, and soil carbon sequestration.1

Relative to grain-fed beef, in terms of meat and protein production, grassfed beef can be more energy-efficient and more cost-efficient.2 The fossil fuel consumption of grassfed meat production only might be half that of grain-finished meat production,3 and Americans could still exceed their recommended daily allowance of animal protein without grain-finished meats.4 And, demand for alternative livestock products, such as grassfed, local, organic, and humanely raised, has risen in recent years; for instance, organic meat sales increased from negligible in 1997 to over $600 million in 2008;5 and, according to a recent national survey of chefs, locally sourced meats and sustainability are the first and third ranked top food trends in 2011.6

In this article, I summarize and synthesize the case studies, experiences, and observations of the symposium presenters, including ranchers producing grassfed beef or genetics primarily on western rangelands, dairy-farming veterinarians, the AGA and the Southwest Grassfed Livestock Alliance. AGA sponsorship enabled the ranchers to attend the session and those who spoke became members of SRM through Colorado Grazing Lands Conservation Initiative scholarships. Videos of the presentations are available on the Society for Range Management Web site at www.rangelands.org/srvideos.

The Virtues of Grassfed Products for Consumers

“Windsor Dairy is about family-friendly farming and incorporating beauty into our lives,” said Meg Cattell. She and husband Arden Nelson produce raw milk and raw milk cheese—Grade A, certified-organic, pasture-fed, from American Devon and milking Shorthorn cattle. The cheese is produced with no chilling, pumping, or heating, and is sold within 100 miles of Windsor, Colorado.

Windsor Dairy is converting old feedlots to pasture, using mob grazing, irrigation, and a pasture seed mix to restore degraded land. This involves no tillage but occasional drilling, and some mowing. “If we’re not careful, we’ll reinvent the prairie,” Cattell said.

Cattell and Nelson both are veterinarians, and Windsor Dairy’s livestock management promotes animal welfare: they have found that with planned rotational grazing and freedom of motion, their cattle are relatively free of disease. Windsor Dairy’s organic herd has a clinical mastitis rate below 1%, and a total death/cull rate of only 7%, well below US averages.