Ainsworthite Forsakes Lab White for Denim Blue

Bruce Crosby

For some, the sandhills of western Nebraska are a prison to be escaped, a barren birthplace to flee as soon as ambition or opportunity allow.

But for others, the hills have unequal beauty as herds of cattle graze on green meadows or snowdrifts form dazzling sculpture against deep blue skies. For them, the sandhills are a source of freedom and fulfillment that nothing else can provide.

Among the former group are many success stories; doctors and lawyers, writers and engineers—none would deny the appeal of their birthplace, but all have chosen concrete over yucca, social life over “The Good Life”.

Though not a sandhiller by birth, Irene Graves of Ainsworth is one member of the latter group the hills can be proud to call their own. The holder of a Ph.D. in range nutrition, Dr. Graves is more likely to be found clad in faded denim than laboratory white.

"I guess the aesthetics of ranch life appeal to me. They’re more important to me than making that discovery that’s going to change the world", she said.

Born on an Illinois farm, Irene came as a child to the sandhills ranch she and her family still operate. She started her studies in range management before the age of 8, when she began identifying and collecting native plants as part of 4-H projects.

She was 14 when she first teamed up with her younger brother, Lowell, for a range demonstration, which took them to the state fair two years. But it was a Mullen rancher who probably spurred her on the most, Irene said. Don Cox enjoyed "tutoring kids in range management" and when Irene took part in a range activity, it was often through his efforts.

"He’d say ‘Have you got your thesis done yet? Have you got your thesis done yet?’ in later years when she was working on her doctorate, which she earned in 1979 from Colorado State University. Foregoing a Masters, her previous degree was a Bachelor of Science in Animal Science and Range Management from the University of Wyoming.

Irene is now hosting the latest of several range management interns, Jean Keller of Bismarck, North Dakota, a student at Montana State University. Although they are now more common, when Irene started, women in range management were rare. “I was it”, she said.

In fact, Irene was the first girl to attend the annual Society for Range Management-sponsored range camp at Halsey, in 1970. It wasn’t that women weren’t welcome, it was just that arrangements couldn’t be made to house both boys and girls at the camp, officials explained. Even then, Irene was the only girl in attendance.

At the University of Wyoming, Irene traveled with the Wyoming Range Management Plant Judging Team, competing at International Collegiate Range Plant contests held in Washington, D.C. in 1972, and Boise, Idaho in 1973, as well as other contests. She was the secretary of the Society for Range Management Student Conclave in Durango, Colo., in 1973, and was also admitted as a student member of the Alpha Zeta Honorary Fraternity that year. She has addressed international meetings several times, including the Youth Range Forum in Reno, Nev. in 1971, the SRM annual meeting in Casper, Wyo., in 1978 and again in 1981 in Tulsa, Okla., and Calgary, Alberta, in 1982. She served on the SRM’s Advisory Council in 1981 and 1983.
Irene views her involvement in range management and return to range life philosophically.

"It was predestination, I suppose," she reflected. "I tried everything. I was going to be a dress designer—I even tried being a girl once. That lasted about six months."

Now back in denim, she oversees the family cow herd while brother Lowell is in charge of the corn crop. "We like to say Irene has the cows, Lowell the corn, Dad runs in between and Mom keeps us going." The father, Harvey, is still very much involved at 73. Irene said the cattle are "wintered" on cornstalks before being brought into the dry lot in February and divided according to breeding requirements.

At calving time, Harvey "calves" out the heifers and black cattle, while Irene tends the crossbreds. They are then combined and "spring pastured" on "cold-season annuals" before spending the summer on native grasses and river pastures.

"I find I'm healthier and happier in the 'applied' position rather than the theoretical," she said. The applied position is just as challenging for her as the theoretical position, however, as betrayed by the tone of her voice as she lists some of the challenges now facing range managers.

Ranchers will need more "simple application—the economics and labor to apply the things we know," she said. She cited the power drill as a major advance in range management, but said costs of up to $13 per acre plus seed and chemicals and a waiting period of five years before the range can be used, are major drawbacks.

She said ranchers are rediscovering "old tried and true things that were being lost, but now we're having to go back to them." Irene said this year's government's PIK program (payment in kind) has also added momentum to the reincarnation of old conservation techniques.

The goal of range managers should be "improvement management rather than just preservation; improved production within the plant community as well as beef production," she said. This region is an especially good laboratory for testing management techniques. "In the sandhills, if you don't treat it (rangelands) right, it simply blows away. It's less tolerant of ill management."

Irene explained one of the ways that her position on the ranch contrasts with that of a professor: "I do work. (I'm) not being paid by someone else to create an idea."
Grazing Crested Wheatgrass Range in the Intermountain West

Don D. Dwyer and Mia E. Owens

Crested wheatgrass has been called the "golden grass of the West" not only because of its late summer and fall color but also because of its grazing value for livestock and wildlife. For most Intermountain ranchers, crested wheatgrass is critical to their livestock production system. The discussion that follows helps to describe why the grass is so important to ranching and how current research is contributing to its use and management.

Year-long Ranching Enterprise

During the course of a year the typical Intermountain area cow-calf operator uses several kinds of seasonal rangelands, from low-elevation desert winter range to high-mountain forested summer range. Each type of range varies with respect to its inherent productivity, animal carrying capacity, and management problems. Together, they represent the component parts of a rancher's entire year-long enterprise. In general, the principle of limiting factors applies to the extent that the maximum size of the livestock production unit is determined by whichever seasonal range has the smallest total grazing capacity. Throughout much of the Intermountain area the mid-elevation foothill range type (range occupying the 6,000 to 8,000-ft elevational zone) used principally for spring grazing, sets the upper limit on the size of the year-long operation.

In comparison to mountainous summer range, the foothill type is limited both in extent and inherent productive capacity. Also, in contrast to desert winter range, the foothill type, while more productive, is much smaller in area. Those operators who must supplement or replace native winter forage with expensive home-produced or purchased hay are increasingly anxious to terminate feeding as early as possible in spring and move animals onto rangelands. This frequently places an extra burden on foothill ranges because of the potentially damaging effects of grazing plants before "range readiness" occurs or before the forage is physiologically capable of withstanding defoliation by grazing.

Fortunately, of all the seasonal range types, foothill ranges offer the greatest potential for improvement under informed management. Large areas exist where topography is relatively gentle and soils are deep and well developed. Precipitation, ranging from 11 to 15 inches annually, is sufficient to assure that responses to management will be prompt and likely. Many acres of foothill ranges are producing levels of forage far below their potential because they are dominated by plant species such as big sagebrush and juniper.

Seeded Ranges

Replacement of low-forage-value native plant communities with seeded stands of introduced wheatgrasses has been a major thrust of range improvement on foothill and desert ranges during the past 30 years. Originally introduced to the United States from Eurasia, crested wheatgrass has been used most extensively on the majority of land area seeded. It is remarkably tolerant of grazing and maintains a long-term competitive position in the plant community. Other species that have also received widespread usage