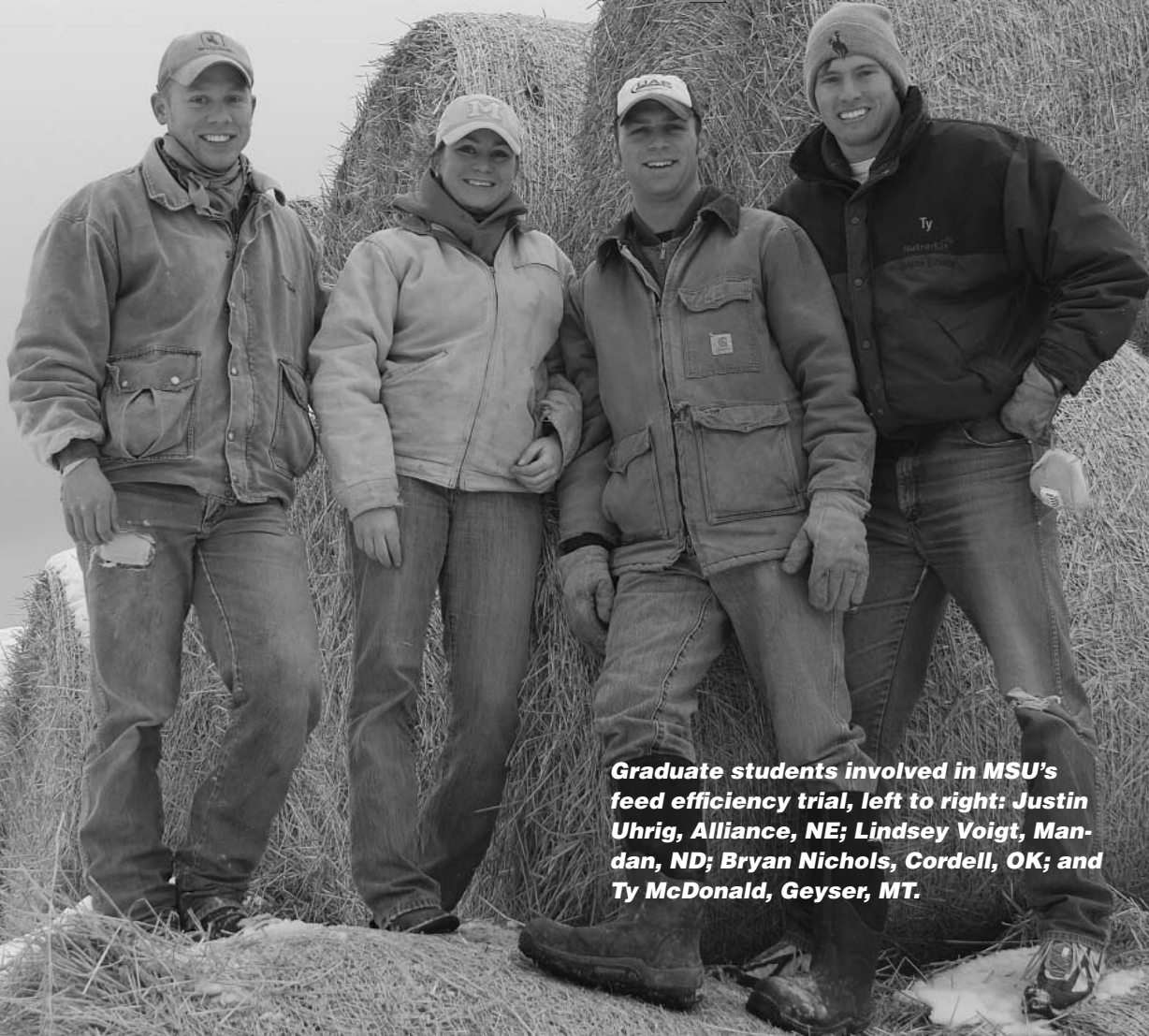


# Historic Relationship



**Graduate students involved in MSU's feed efficiency trial, left to right: Justin Uhrig, Alliance, NE; Lindsey Voigt, Mandan, ND; Bryan Nichols, Cordell, OK; and Ty McDonald, Geysler, MT.**

## **The American Simmental Association and Montana State University share the same city and a common vision for producing better beef cattle.**

*By Dan Rieder*

Ever since the American Simmental Association (ASA) put down roots on Bozeman's north side in 1969, the organization has enjoyed a close and beneficial relationship with the Animal Science Department of Montana State University (MSU), whose spacious campus is located on the city's southern edge.

ASA's first Executive Secretary was Don Vaniman, a graduate of the institution and he was just the first in a long line of MSU alumni who have worked for ASA. Such long-time ASA staff members as the late David Van Dyken, Dr. Earl Peterson, Steve McGuire, Bob Friedrich, Annie Allen, Dr. Richard "Butch" Whitman and the author, either graduated from or taught at MSU. In addition, numerous student interns have made the four-mile trek from the campus to the ASA headquarters and many of those interns ultimately joined the ASA work force.

MSU faculty members were prime sources of advice and know-how in those early days. Dr. Pete Burfening was instrumental in devising the criteria that led to the publishing of the beef industry's first sire summary clear back in 1971. Drs. Don Kress and Don Anderson led research, at the Northern Montana Research Station at Havre, which utilized varying percentages of Simmental x Hereford breeding in a successful effort to illustrate the significance of breeding for local environment conditions.

Professors routinely brought their animal production classes to the ASA headquarters to allow them see how a breed association functions and ASA staff frequently reciprocated as guest lecturers in the classroom.

However, since 1996, the relationship has expanded and blossomed. That's when Dr. Jerry Lipsey became the ASA Executive Vice President and renewed his acquaintance with New Mexico native John Paterson. Back in

1979, fresh from acquiring his Ph.D. in Ruminant Nutrition from the University of Nebraska, Paterson had replaced Lipsey on the University of Missouri faculty when Lipsey took a four-year hiatus to work with the American Angus Association's Youth and Certified Angus Beef programs. "When Jerry came back to Missouri, we worked together for 10 years and always enjoyed each other's company," Paterson recalled. "We'd get to the office early, grab a cup of coffee and start arguing about various beef cattle subjects. Those morning sessions were very memorable and enjoyable."



*Dr. John Paterson*

In 1993, Paterson accepted a position as head of the Animal Science Department at MSU. Three years later, after moving over to his current post of Beef Cattle Extension Specialist, Paterson received a call from Lipsey saying that he (Lipsey) was interested in the top job at ASA and asked for Paterson's opinion. "I advised him to 'take the interview,' that it was a great opportunity. I was very pleased when he got the job."

## Expanding the Research

Over the past 12 years, ASA and MSU have been intricately tied together in such well-documented projects as the ASA Carcass Merit program, the innovative student calving team endeavor, and a joint feed efficiency program that also includes the University of Illinois Animal Science Department.

The legendary Bair Ranch, owned and operated by a trust at Martinsdale, Montana, is at the center of the joint effort of the last dozen years. MSU staff, led by Paterson along with Drs. Mike Tess, Jeff Mosely and Rodney Kott, serves the trust in an advisory capacity.

"In the late 1990s, the Bair Ranch was experiencing a horrendous dystocia rate on their straight Angus heifers," Paterson said. "We consulted Jerry and he speculated that the Ranch had unintentionally put themselves in a 'death spiral' by selecting exclusively for calving ease over many generations, resulting in a shrinkage of the cowherd's collective pelvic size. That meeting eventually led to the use of the Bair commercial Angus herd, along with several other cooperating ranches, for the ASA Carcass Merit Program.

"That is also when the calving management portion of the program began. Teams of MSU students, in return for class credit, worked in rotating four-day shifts to monitor and assist the first calf-heifers if needed, recording birth weights, calving ease scores and other data," he said.

By 2004, ASA had joined forces with the University of Illinois, led by faculty members Drs. Larry Berger and Dan Faulkner, to feed the steers from the Bair Ranch in their roomy, state-of-the-art Residual Feed Intake (RFI) facility. The RFI records individual consumption of each animal and calculates for feed efficiency.

A couple of years later, Paterson approached Lipsey with the idea of expanding the program to include the bred heifer half siblings of the steers on feed in Illinois. "My argument was that we needed to pay more attention to the 'factory,' which is the female side. I wanted to know if there was an RFI correlation between those steers being fed a ration of 85% concentrates in Illinois,

to their bred heifer herdmates, being fed 85% roughage here in Montana," Paterson stated.

This past January, the initial group of 120 Bair Ranch heifers completed four months on the MSU campus and were trucked 100 miles back to the Bair Ranch, which is located in the picturesque Musselshell valley of central Montana.

"Transportation and feed were generously provided by the Bair Ranch Foundation, as part of the three-way partnership between ASA, MSU and the Ranch," Paterson said. "MSU provided the facilities and along with the Montana Stockgrowers, through a joint grant, underwrote the costs of graduate students to conduct the trial, so three Master's degrees will come out of it. Those graduate students concentrated on: 1) the effect of RFI on reproduction; 2) the effect of nutrition on reproduction; and 3) what it means economically to the rancher."

The overall plan calls for the heifers to be monitored by the graduate students through calving, rebreeding and weaning of their calves. "We believe this program will continue for at least four years and may last as long as eight years," Paterson predicted.



*Bair Ranch heifers being loaded for the trip to MSU.*

"MSU doesn't have a large RFI facility—we can handle only 40 head at a time," Paterson explained. "We bring in 40 while the remaining 80 head wait their turn in the feedlot. After 35 days, we rotate with a fresh group of heifers. Wade Shafer of the ASA staff wrote the statistical protocol and we followed it to a 'T'—to assure meaningful measurements, the protocol called for 35 days within the intake building."

Some rather startling preliminary results have come out of the study. "We had one heifer that consumed 45 pounds of dry matter per day and had a conversion rate of 22 pounds of feed to one pound of gain. Another heifer, in the same group, consumed 18 pounds with a conversion rate of eight pounds of feed to a pound of gain," he said. "The two heifers were comparable in frame score. Which one would you want in your herd?"

Paterson believes that the RFI research has great potential for decreasing ranchers' feed costs. "This research could allow the rancher to more easily identify those readily productive cattle with good conversion rates. Cattle-Fax says it costs roughly \$400 a year to take care of a cow and her calf. If that figure could be reduced by \$50, just based on RFI, the rancher would see his costs reduced to \$350 per cow/calf. That's very significant.

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*Bred heifers being fed a high roughage diet at the MSU facility.*

“In 30 years of doing this, factoring in all the pharmaceuticals, all the enhancements and new technology, I have never seen anything like this that would give the rancher an extra \$50 to \$70 a year. I’ve not seen that and that’s why I’m so excited about it,” he concluded. “What we presently do not know is how these heifers will perform over the next four to eight years in terms of reproductive efficiency.”

“I think the relationship between our two organizations is so strong for a number of reasons,” Paterson summarized. “For me personally, it has to do with my long-time friendship with Jerry, and the fact that there is a breed association in our town is invaluable. We have access to so much breeding talent—Jerry, Wade and Marty Ropp. ASA always seems to have a realistic vision of where the beef industry needs to go and that impresses me very much.”

**ST**

