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SDSU BEEF TEACHING HERD

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CATTLE 93-2

Summary

A herd of Angus, Simmental and Simmental-Angus crossbreds are maintained at the Cow-Calf Teaching and Research Unit near the SDSU campus. Cattle from this herd are used for teaching, research, and extension activities. In addition to use in the classroom, cattle are used for the annual SDSU Little International, field days, and numerous 4-H, FFA, and other educational events. Research projects include reproductive physiology, creep feeding, and cow nutrition studies.

For teaching purposes, cattle within each breed that vary in calving ease, growth rate, mature size, and maternal value are maintained. Although it is not feasible to maintain all of the breeds that are useful to the commercial beef cattle industry in this region, two breeds that are distinctly different are used. The goal for our breeding program is to produce bulls that are useful to the commercial beef industry that fit into the following four categories:

1. Low birth weight Angus bulls to breed to yearling heifers.
2. Higher growth Angus bulls to breed to cows.

3. Simmental bulls to breed to cows in a rotational crossbreeding system.
4. Simmental-Angus crossbred (or composite) bulls to use in a simplified crossbreeding system to maintain the percentage Simmental at 50% or less.

The specific objective goals for the bulls produced are presented in Tables 1 and 2. The average EPDs of the cow herd and the AI sires used in 1993 to get closer to those goals are shown in Tables 3 and 4.

In the past the bulls produced have been used in other SDSU crossbred research herds with other bulls offered for sale privately. In April of 1993 the first SDSU Limited Auction Bull Sale was held at the Cow-Calf Teaching and Research Unit. The Block and Bridle Club contacted potential buyers, distributed advertising, washed and clipped the bulls, clerked the sale, and prepared lunch. If you would like to receive information on the bulls to be sold in April of 1994, contact Kevin VanderWal (unit manager) or Dick Pruitt of the Animal and Range Sciences Department.

¹Associate Professor.

Table 1. Goals for the majority of Angus bulls produced

	Low birth weight bulls	Higher growth bulls
Birth weight EPD	< +2	< +6
Weaning weight EPD	> +25	> +30
Milk EPD	> +10	> +10
Yearling weight EPD	> +40	> +50
Frame score	5 to 6	6 to 7
Yearling scrotal circumference	> 34 cm	> 34 cm

Table 2. Goals for the majority of Simmental bulls produced

Calving ease EPD, heifers	> -2
Birth weight EPD	< 0
Weaning weight EPD	> +5
Yearling weight EPD	> +10
Maternal calving ease EPD, heifers	> -1
Milk EPD	> -2
Frame score	6 to 7
Yearling scrotal circumference	> 34 cm

Table 3. Average EPDs of Angus AI sires and cows^a

	AI sires used to produce low birth wt bulls	AI sires used to produce higher growth bulls	Low birth wt cows	Higher growth cows
Birth weight	-.5	+4.1	+1.5	+4.9
Weaning weight	+32	+37	+24	+30
Milk	+21	+14	+11	+11
Combined maternal index	+37	+32	+23	+26
Yearling weight	+57	+65	+41	+50

^aEPD's from Fall 1993 Angus Evaluation.

Table 4. Average EPDs of Simmental AI sires and cows^a

	AI sires	Cows
Calving ease, heifers	+3.9	+1.6
Birth weight	-1.2	+1
Weaning weight	+11.4	+10.3
Yearling weight	+22.2	+16.6
Maternal calving ease, heifers	+2.2	+1.8
Milk	+1.2	+3.8
Maternal weaning weight	+6.9	+9.0

^aEPD's from Spring 1993 Simmental Evaluation.