## **Across-Breed EPD Table Provided**

CLAY CENTER, Neb. — The table of adjustment factors to estimate across-breed expected progeny differences (AB-EPDs) for 12 breeds was presented to the Genetic Prediction Committee at the Beef Improvement Federation Annual Meeting in Calgary, Alberta, Canada July 2.

Animals of different breeds can be compared on the same EPD scale, after adding the appropriate adjustment factor to expected progeny differences (EPDs) produced in the most recent genetic evaluations for each of the 12 breeds.

For example, if a Simmental bull has an EPD for weaning weight of +25.0 and a Hereford bull has an EPD of +25.0, would we expect their progeny out of a different breed of dam (e.g., Angus) to weigh about the same? No, not unless the adjustment factor is about the same. In this case the AB-EPD for the Simmental bull is 49.4, which is the table adjustment factor of 24.4 added to the Simmental EPD of +25.0. The AB-EPD of the Hereford bull is 28.3, the table adjustment of +3.3 added to the Hereford EPD of 25.0. In this example, progeny of the Simmental bull would be expected to weigh, on average 21.1 pounds more at weaning than progeny of the Hereford bull (24.4 +25.0) - (3.3 + 25.0) = 21.1pounds.

EPDs are published annually by breed associations for most breeds of beef cattle. EPDs can be used to estimate differences expected in performance of future progeny of two or more individuals in the same breed for birth weight, weaning weight, yearling weight,

maternal weaning weight, and milking ability (as reflected in progeny weaning weights). Without the across breed adjustment factors, EPDs can not be used to compare animals of different breeds because they are computed separately for each breed and each breed has a different base point.

Are these predictions of aver-

age difference in calves of two or more parents perfect? No, EPDs are not perfect for comparing any two bulls of the same breed, and AB-EPDs are somewhat less accurate for comparing bulls of two different breeds. Since the breed differences are estimated with relatively large numbers of sires and progeny at MARC, results from updated statistical analysis indi-

cate that precision of the AB-EPD estimates depend primarily upon accuracy of within breed EPDs of individual bulls being compared. The AB-EPDs for MILK were estimated with lower precision relative to corresponding estimates for birth weight, direct weaning weight, and yearling weight.

The adjustment factors were updated using national cattle

evaluations produced in 1998 by associations of each of the 12 breeds. The table is based on "head to head" comparison of the breeds at the U.S. Meat Animal Research Center (MARC), Clay Center, Neb. The analysis was conducted by MARC Research Geneticists, Dale Van Vleck and Larry Cundiff.

## ADJUSTMENT FACTORS TO ADD TO EPDs OF TWELVE DIFFERENT BREEDS TO ESTIMATE AB-EPDs

Breed	Birth Wt	Weaning Wt	Yearling Wt	MILK
Hereford	4.0	3.3	-4.4	-9.6
Angus	0.0	0.0	0.0	0.0
Shorthorn	8.3	29.4	40.7	10.7
Brahman	14.7	35.8	-16.8	24.0
Simmental	7.3	24.4	42.4	13.6
Limousin	8.1	34.0	29.2	-5.7
Charolais	11.2	42.0	62.0	1.7
Maine Anjou	12.3	41.1	53.9	23.8
Gelbvieh	10.1	48.3	52.3	26.4
Pinzgauer	9.2	30.4	29.6	7.5
Tarentaise	5.5	32.2	20.4	19.2
Salers	6.5	29.6	34.9	12.9

Questions may be addressed to Larry V. Cundiff (402-762-4171) or L. Dale Van Vleck (402-472-6010)

## Ag Progress Offers Tips On Conserving Natural Resources

UNIVERSITY PARK (Centre Co.) — Visitors to Penn State's Ag Progress Days, August 18-20, can learn how to apply conservation practices to backyards as well as farms at the Conservation Education ARea.

The Conservation Education Area will offer workshops and "living demonstrations," as well as model airplane flying demonstration by 4-H aeromodelers. Buses will also depart daily from the area to take visitors on various conservation tours.

The wetlands and stream corridor management tour will show how stream crossings, streambank fencing and restored wetlands can improve streambank corridors Buses leave at 10 a.m. and 1 p.m daily

A walking tour on forest stewardship will feature important forest tree species and their growth. Topics include forest ecology, forest history, tree identification and forest management from the landscape to the woodlot level Participants should dress comfortably for this walking tour, which will run hourly from 10 00 to 4:00 each day, with an additional tour at 5:00 on Wednesday

On the agricultural conservation tour, farm operators can learn how conservation practices can protect soil and improve water quality. Topics include crop residue management, contour strip cropping, buffer strips, cropland terraces, waterways and diversions Buses will leave daily at 11 a m and 2 p m

The manure composting tour will feature a stabilized pad that can be used to store bedded pack manure or to create a compost Experts will explain how this facility is constructed and maintained This tour will be held daily at 10 a m and noon

Model airplane enthusiasts from Pennsylvania's Cumberland County Aeromodelers, a 4-H modeler's club, will demonstrate their flying feats daily at 11:15 a.m. and at 1:15, 2:45 and 4:15 p.m. Club members and adult leaders will fly miniature aircraft built by club members. At the Graziers Forum, daily at 11 a.m.,

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