## Your **Questions About Sire Evaluation**

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The January 1980 issue of ANGUS JOURNAL included for the first time the complete Sire Evaluation Report of all bulls completing test. Response from this report has been very positive, which indicates a couple of major points. One, Angus breeders are concerned about performance information as a selection tool for their breeding programs; two, sire evaluation results are considered one of the major performance tools breeders are using while making breeding plans for 1980.

After each Sire Evaluation Report there are usually questions about the report and its contents. Some concerns of breeders are discussed on this page.

## Calving Ease

Calving ease data in the 1980 report is information from first-calf heifers only. In completing the 1980 report, any bull with 10 or more calves from first-calf heifers was listed with a calving ease estimated progeny difference (EPD). Bulls without calves from 10 heifers did not have an EPD calculated for the trait. The birth weight information is averaged for all calves produced. The average birth weight of calves processed through sire evaluation is 70 lb. An EPD for plus or minus pounds is applied to the average, so a plus 4-lb. EPD means a bull has sired calves that average 74 lb. at

## Why Do EPDs Change?

The expected progeny difference for bulls changes from one report to the next, considering in most cases that no additional progeny are added. This occurs when new bulls completing test are compared to all bulls that previously completed the sire evaluation test. In most cases, bulls will change very little from one report to the next, but in all likelihood they will change a little. In addition, a bull will change if the Reference Sire(s) he was compared against changes with the addition of offspring through the program.

Another occurrence in 1979 was the addition of progeny for some bulls from the time the mid-year report was published in March 1979 to the year-end report in January 1980. The situation occurred with bulls tested in the Iowa Beef Improvement Assn. test herds. In the IBIA program, each bull is bred in at least three different herds. When the March 1979 report was printed, all bulls with at least 20 head of progeny through weaning, yearling and carcass were listed in the report. Therefore, EPDs were calculated for each trait and the report was published. After the report was published, additional data came in for eight of the bulls tested, and three to six additional progeny were added for each of these bulls. This additional data affected results published in the January 1980 report, so some bulls did vary 3-4 lb. in expected progeny differences.

In most test situations, the addition of progeny will not happen after a report is printed, but this was one case when a report was published before all the data was accumulated.

## How Are Reference Sires Selected?

The method of selecting Reference Sires has changed very little through the years. Initially, 12 Reference Sires were used in sire evaluation testing. This was changed to six head two years later, and at present four bulls are used. Two new Reference Sires are selected each year. The two new bulls are selected from bulls completing test, and an effort is made to select bulls that are positive or have plus EPDs in all traits evaluated

Additional efforts are made to have Reference Sires of varying pedigree to further evaluate bulls of different breeding programs. The four bulls that will be used in the Sire Evaluation program in 1980 are WAR Rito 3030 0160 1129, Black Bull Matt Dillon, Emulous 494 GDAR and PBC 707 1M F0203. At least two Reference Sires are compared to each test sire in the program. **Purebred Option** 

All testing with exception of the purebred option program is now done in associationsponsored commercial test herds. Plans for 1980 are to breed 20-30 test sires in commercial herds in Nebraska, Iowa, Kansas and Minnesota.

The one program that can be conducted in a breeder's herd is the purebred option program. The test includes a random breeding of test sires and two Reference Sires to registered cows. All calves are evaluated for calving ease, weaning weight and yearling weight. The major advantage of the purebred option program is that all calves can be registered and merchandised as registered seed stock. All weighings are supervised by regional manager in the