



# By the Numbers

► by **Sally Northcutt**, director of genetic research

## New carcass EPDs from 30,000 feet

*Sometimes it is helpful to skip the mechanics of a genetic evaluation and view it in terms of the big picture. The new carcass expected progeny difference (EPD) analysis to be released as part of the Fall 2008 National Cattle Evaluation (NCE) has plenty of technical details, but this month is a good time to hit the high points of what you can expect.*

### What are the new carcass EPDs?

The new carcass EPDs are calculated from an integrated analysis of the Angus Herd Improvement Records (AHIR®) carcass and ultrasound phenotypic data. The genetic evaluation produces a single set of EPDs for carcass weight, marbling score, ribeye area and fat thickness. The units of measure would be in carcass trait format and analyzed on an age-constant basis.

### When will the new carcass EPDs be released?

The fall 2008 NCE will contain a new release of enhanced carcass trait EPDs. At that time, the existing ultrasound EPDs will no longer be published.

### Where did my ultrasound EPDs go?

The ultrasound scan data that previously went into the ultrasound EPDs now contributes to the new carcass EPDs. Any scan data prior to the release of the new carcass EPDs is still used in the calculations, even though the ultrasound EPDs are no longer published.

### Why are the new carcass EPDs better?

The genetic evaluation is enhanced to include carcass performance data from

### Why new carcass EPDs?

- Simplify selection tools for commercial bull buyers using Angus genetics.
- Consolidate predictions for animals with carcass and/or ultrasound data.
- Focus on the economically relevant traits affecting quality and yield grade.
- Enhance the genetic evaluation through improved prediction models.
- Provide a platform for implementing future technologies for genetic improvement.

**NOTE: New carcass EPDs and accuracies released as part of the fall 2008 NCE are not directly comparable to either the spring 2008 carcass or ultrasound results.**

proper contemporary groups on steers and heifers, and to simultaneously incorporate ultrasound performance data on bulls, heifers and steers. Ultrasound traits are analyzed as indicator traits for carcass merit. The outcome of this analysis is a single set of EPDs, simple to interpret in carcass units and relevant to commercial producers and the industry.

### Does my scan data influence the new carcass EPDs?

Yes. The relative performance of an animal to its contemporaries scanned for intramuscular fat (IMF), ribeye area and fat will influence the carcass EPDs printed in fall 2008. Ultrasound scans are indicator traits measured on bulls, heifers and steers to assess genetic potential for carcass merit. For example, percentage IMF scans are an indicator of the genetic potential for marbling.

### Since carcass records are used, should I still ultrasound-scan my bulls and heifers?

Yes, definitely. Scans taken on yearling Angus bulls and heifers will be more important to generate interim and NCE EPDs. The classic carcass EPD pedigree interims will no longer exist under this new evaluation. Interims in fall 2008 will be accessing genetic contributions on the sire and dam, as well as any available

contemporary group deviation information. Thus, ultrasound scans from a proper contemporary group on bulls and heifers will be necessary on animals that in the past had relied solely on pedigree estimates for their carcass EPDs and dollar value indexes (\$Values).

### Will my \$Values change?

As always, if the EPDs change, then the index values change. More specifically in this case, grid value (\$G) and beef value (\$B) will utilize the new carcass EPDs. Prior to the fall 2008 release, the calculations of the \$Values utilized carcass and ultrasound EPDs from separate evaluations into the index values. With the new integrated evaluation, the single set of new carcass trait EPDs will be incorporated into the current \$Value index procedures.

### What change should I expect in my accuracies?

Since ultrasound is analyzed as an indicator trait, the accuracies on animals with primarily ultrasound data will appear lower than reported in the previous evaluation.

### Why does my EPD look different even though no new records were added?

The new carcass EPDs and accuracies are not directly comparable to the EPDs previously reported for carcass and ultrasound. This is essentially a new EPD produced by a joint analysis of two data sets.

### How do I gauge where my EPDs stand after this new analysis is released?

Use the percentile rank tables that are released with the fall 2008 NCE. In many cases, an animal's percentile ranking is unchanged even though the absolute EPD looks different.

For more details, read the "By the Numbers" column in the December 2007 and January 2008 issues of the *Angus Journal*.

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**Editor's Note:** "By the Numbers" is a column by Association performance programs staff to share insights with Angus members about data collection and interpretation, the National Cattle Evaluation (NCE), genetic selection, and relevant technology and industry issues. If you have questions or would like to suggest a topic for a future column, contact Sally Northcutt, director of genetic research, or Bill Bowman, director of performance programs, at 816-383-5100.