



# The Angus Link

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## New selection tool designed to benefit commercial producers

As seedstock and commercial producers make their bull selection decisions this spring, they will have the opportunity to use a new tool for analyzing bulls' genetics for postweaning growth and carcass traits. Dollar Value (\$Value) Indexes for feedlot, grid and beef values are now available on registered Angus bulls and females.

### What are \$Value Indexes?

\$Value Indexes are multi-trait selection indexes, expressed in dollars per head, to assist beef producers by adding simplicity to genetic selection decisions. The \$Value, pronounced dollar value, is the estimate of how future progeny of each sire are expected to perform, on average, compared to progeny of other sires in the database if the bulls were randomly mated to cows and if the calves were exposed to the same environment.

Currently, there are three \$Value Indexes available. Feedlot Value (\$F) covers feedlot merit, and Grid Value (\$G) represents grid merit. A third index incorporates these two postweaning indexes into an industry-relevant predictor of feedlot and carcass merit, the Beef Value (\$B). These are the first in a suite of bioeconomic \$Values to assist commercial beef producers by adding simplicity to genetic selection decisions.

\$Values use available expected progeny differences (EPDs) converted into economic terms incorporating industry-relevant components for feedlot performance (for example, days on feed, ration cost or cash price) and carcass merit [for example, the Choice-Select spread, heavyweight and Yield Grade (YG) 4 and 5 discounts]. The \$Values are sensitive to the assumptions for the industry-relevant components used in calculating \$F, \$G and \$B. A three-year rolling average is used to establish typical industry economic values for quality grade and yield grade schedules.

All three index values are expressed in dollars per head.

\$F is the expected average difference in future progeny performance for postweaning merit compared to progeny of other sires.

\$G is the expected average difference in future progeny performance for carcass grid merit compared to progeny of other sires. \$G combines quality grade and yield grade attributes and is calculated for animals with carcass EPDs, ultrasound EPDs or both.

\$B is the expected average difference in future progeny performance for postweaning and

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carcass value compared to progeny of other sires. The \$B value includes, but is not merely the sum of, \$F and \$G.

As with EPDs, variation in \$Values between animals indicates average expected differences in the relative value of progeny assuming the use of random mating and valid contemporary groups.

Thus, a \$Value has meaning only when used in comparison to the \$Value of another animal.

**How do I use them?**

\$Values should be used to complement the selection criteria that producers already use when selecting bulls. Economic studies have shown that fertility and reproductive value are the

primary determinants of profitability in a cow herd. Performance and growth traits are next, followed by carcass characteristics. For this reason, \$Values are not to be used as the only selection criterion, since they only combine postweaning growth and carcass performance. \$Values do not account for any reproductive or preweaning economic values.

Different management situations may require varying emphasis on the genetic selection “tools” offered. For instance, one producer might have historically sold calves at weaning and rarely used the carcass and ultrasound EPDs in bull selection decisions. However, he would like to begin making general progress in improving end-product value in the event he chooses to retain ownership in the future. In this case, \$Values could be used in concert with selection criteria he has used in the past, such as weaning weight EPDs, to make directional change in postweaning and carcass merit.

Another producer might sell fed cattle and have significant carcass data on past groups of steers. This detailed data would allow him to identify the specific trait in need of improvement. In this case, \$Values might not be used where the individual end-product EPDs could better assist him in achieving the desired genetic change. The producer still has the opportunity to use \$Values as a tool in maintaining the balance between feedlot and carcass traits.

**Why add another EPD?**

\$Values are *not* additional EPDs. They are simply indexes that enable producers to make directional change

**Angus programs offer link**

In the wake of the single case of bovine spongiform encephalopathy (BSE) in Washington state last December, the U.S. beef industry has renewed its focus on a national identification (ID) program to assure the safety and wholesomeness of our food supply. The American Angus Association is keeping abreast of all developments of the U.S. Animal Identification Plan (USAIP), and will strive to offer its members and bull-buying affiliates the simplest access possible to any national ID program developed.

In the late 1990s, the Association recognized the potential need for identification of our commercial cow herd and secured a sizable block of 15-digit American Identification Numbers (AIN) from the U.S. Department of Agriculture (USDA). Since then, these numbers have been assigned to all cattle enrolled in the Beef Record Service (BRS), our nonbreed-specific, Standardized Performance Analysis (SPA)-certified program to collect and analyze production records on commercial beef cattle. For \$2 per calf weaning weight submitted, producers can access this analyzed information either online or via printed reports.

in all traits included in the index. For the \$B index, this includes postweaning traits of yearling weight, all carcass and all ultrasound body composition EPDs.

The Angus Herd Improvement Records (AHIR) program currently characterizes up to 17 individual EPD traits on each animal. As new trait measurements are added, many producers become overwhelmed with the amount of data that they must consider when making genetic selection decisions. \$Values are designed to make these breeding decisions simpler — especially when producers' knowledge of their cow herds' genetic potential for postweaning traits (feedlot and carcass data) is limited.

The following "road map analogy" has often been used when illustrating the use of EPDs. When planning the best route for a trip, you must first locate where you are, then determine your destination. Only after these two points have been found, can you adequately plot your route.

The same is true with EPDs for individual traits. Producers should have a basic knowledge of where their cow herds are, and where they want their herds to go in specific trait areas (birth weight, weaning weight and

yearling weight, marbling, ribeye area, etc.) before they can plot their routes using individual EPDs. If they have a good understanding (thanks to several years of feedlot and carcass data) of the strengths and weaknesses of their cow herds for postweaning traits, individual EPDs for these traits will likely give them the fastest, most efficient "route" to achieve their genetic goals.


However, if producers do not currently have ample postweaning data on their cow herds, \$Values can help them start in the general direction of balanced feedlot and carcass improvement, without risking the pitfalls of single-trait selection for just one or two of these traits.

The \$F, \$G and \$B values on individual animals and the *Spring 2004*

*Sire Evaluation Report* may be viewed at [www.angus.org](http://www.angus.org). Questions on \$Values can be directed to the American Angus Association Performance Programs Department at [ahir@angus.org](mailto:ahir@angus.org) or (816) 383-5100.



## to national ID system



In addition, feeder cattle and replacement females enrolled in the AngusSource program also receive unique numbers from this bank of AINs. These numbers are printed on visual ID tags issued for each calf enrolled. The cost of this program is \$1 per calf, which includes an ear tag, shipment and marketing information at sale time.

While the AIN system will not likely become the official national ID system for the United States, the numbers that have already been used to tag and identify animals should be recognized in the national ID system.

The American Angus Association believes that producers can benefit from a national ID program, and we want to provide the simplest opportunities to enable our members and affiliates to capitalize on the usefulness of an ID program.

For more information on either AngusSource or BRS, go to [www.angussource.com](http://www.angussource.com) or [www.beefrecords.com](http://www.beefrecords.com), or simply call the Commercial Programs Department at (816) 383-5100.