SORTING GATE
Simplifying Genetic Selection

by Kelli Retallick, Angus Genetics Inc.

Dollar Value indexes ($Values) are tremendous tools to aim for more herd profitability. Simple to use, but difficult to derive, these economic selection indexes combine expected progeny differences (EPDs) with the economics of the beef industry to select for more profit.

Like a business plan for your ranch, selection indexes start with an end goal in mind. In most cases, indexes are built around two main categories — terminal or maternal. Therefore, when utilizing $Values, cattlemen must first set a clear goal for their operation and then understand which tools to utilize to help them reach those goals.

Consider beef value, more commonly known as $B. It was built to be a terminal index. Terminal indexes assume all progeny, males and females, will be fed and sold on the rail. Traits included in the index include anything associated with profitability in both the feeding and harvesting sectors. Economic assumptions are based on average feed costs and an average grid market.

In contrast, weaned calf value, or $W, was designed to fill the needs of those producers who retain their own replacement females and market their culls as feeder calves (weanlings). In addition to weaning weights, $W takes into account maternal characteristics including birth weight, milk and mature size.

Milk is included as both a cost and revenue source. The revenue portion comes from the pounds of calf at weaning due to the dam's individual mothering ability on top of the calf's individual performance. Costs are associated with increased feed energy costs needed to maintain a higher-milking cow in the herd.

$Values can be an effective selection tool. They aim to simplify genetic selection by combining several different EPDs into one value. By doing so, they drive genetic progress in multiple EPDs at once — all while condensing down the number of EPDs that must be juggled.

While useful in their purpose, it is important to understand which $Values to utilize to aim for optimal results. If you have any questions on $Values, feel free to contact the American Angus Association at 816-383-5100.

Editor's note: "Sorting Gate" is a regular *Angus Beef Bulletin* column featuring herd improvement topics for commercial producers using Angus genetics. Authored by staff of Angus Genetics Inc. (AGI), regular contributors include Dan Moser, president; Stephen Miller, director of genetic research; and Kelli Retallick, director of genetic service. For additional information on performance programs available through the American Angus Association and AGI, *visit www.angus.org* and select topics under the Management tab.

Table 1: $Value descriptions

$Value	Goal	Type	Traits included
Weaned calf ($W)	Retaining replacement females and marketing culls as feeders (weanlings)	Maternal	Birth weight, weaning weight, milk, mature cow size
Cow Energy ($EN)	Maintaining affordable females	Maternal	Mature cow size, milk
Beef ($B)	Retained ownership on all progeny, both males and females, marketed on the grid	Terminal	Postweaning gain (PWG = YW - WW), dry-matter intake, carcass weight, marbling, ribeye area, fat
Feedlot ($F)	Selling cattle on the live fed-cattle market	Terminal	Postweaning gain (PWG = YW - WW), dry-matter intake
Grid ($G)	Marketing cattle on the grid	Terminal	Carcass weight, marbling, ribeye area, fat