

SORTING GATE

The maternal advantage

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The Angus female has always been highlighted for her maternal ability.

Easy calving, good mothering ability and lifetime production have set her apart from others.

As we continue to see selection pressure on economically relevant traits down the supply chain — such as carcass quality and postweaning gain — commercial producers can be confident Angus breeders are continuing to place the utmost focus on maternal characteristics to keep the Angus female strong.

Tools available

Currently, the American Angus Association offers several genetic tools to help individuals select parents for the next generation. Today, nine expected progeny differences (EPDs) related directly to maternal function and lifetime adaptability predict future progeny performance. These traits include everything from pounds of weaned calf added due to mothering and milking ability to foot conformation, which will affect how long females remain in the herd.

Table 1 shows a full list of these individual traits and the direction in

which selecting for the top 1% will lead.

A multi-trait option

For those who would like to see a combined value to show how these traits can affect profitability in the cow-calf sector, you can migrate to the maternal weaned calf value (\$M) economic index. This tool is built to predict animals that have the genetics to increase profitability for those retaining females from within the herd as replacements, then selling their offspring at weaning time.

This dollar value (\$Value) index does its best to balance the cost and revenue factors that affect profitability from conception to weaning. Traits included in \$M include calving ease, weaning weight, maternal milk, mature cow size, docility, heifer pregnancy (fertility) and foot conformation.

Obviously, pounds of calf drives revenue in this model. Both weaning weight and maternal milk will contribute to how much salable pounds a producer will have available at weaning.

Yet, as commercial breeders

Table 1: American Angus Association expected progeny differences directly related to maternal function

Trait	Abbreviation	Rank	Description
Heifer pregnancy	HP	1%	Higher pregnancy rate in heifers
Calving ease maternal	CEM	1%	Easier calving
Maternal milk	Milk	1%	More pounds of weaned calf
Mature weight	MW	1%	Heavier mature cow weights
Mature height	MH	1%	Taller mature cows
Docility	Doc	1%	Calmer temperament
Foot claw set	Claw	1%	Less curled toes
Foot angle	Angle	1%	More desirable foot angle
Hair shed	HS	1%	Earlier summer hair shedding

SOURCE: American Angus Association, 2022.

know, added pounds of weaned calf can come with additional costs on the cow herd side if cow size is not kept compatible. Therefore, this index looks to balance output (calf weaning weight) with cost (cow size) to find an optimal genetic combination for profitability.

It does the same with milk production. While more milk can add pounds to the calf, too much milking ability creates cow inefficiencies that require more feed resources to maintain that female.

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operation, it is also essential to ensure a buyer is on the seats to purchase your next set of calves, so taking account of feedlot value and carcass merit is a must. This is where placing pressure on \$C, as well as \$M, in your operation can be a real advantage.

In addition, Angus producers are continually trying to better characterize their genetics through uptake of programs like Angus Herd Improvement Records (AHIR®) Inventory Reporting, which is a program to

Calving ease is an important driver to avoid additional labor costs during calving or, worst-case scenario, a dead calf or cow due to dystocia. From there, other traits like docility and foot conformation, which can lead to a culling event and additional replacement-heifer costs, are accounted for.

Broad view

\$M also plays a role in the combined value index (\$C) that characterizes profitability throughout the entire beef supply chain. While it's important to focus on revenue within one's own

understand when and why cows are leaving the herd. Seedstock producers commit to reporting information on every female every year, not just those that have bull calves that make the sale. Understanding what is affecting the lifetime productivity of females can increase the value of maternal genetics.

In fact, current research at Angus Genetics Inc. (AGI) is focused on understanding how genetics play a role in how many calves each individual cow has over her lifetime. Using this cow herd inventory data

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will hopefully enable both seedstock and commercial cattlemen to target sires that will increase the number of calves a female produces during her lifetime.

Having a better picture of why cows leave the herd and at what age allows for research programs to revolve around targeted issues to understand how different management practices, or perhaps genetic selection, can be used to effectively mitigate these issues. Like the old saying goes, you cannot manage what you don't measure.

Continued commitment

Continued growth in both cow herd enrollments and commitment to the necessary data collection in AHIR continue to maintain their dominance. Producers continue their pursuit of better describing both the low- and high-hanging fruit.

Again this year, Angus producers will report more than 600,000 birth and weaning weights, along with a 20% and 40% increase in breeding records and foot scores, respectively. This is Angus breeders' dedication to commercial cattlemen, that they will continue to characterize their genetics to the best of their abilities.

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Your part

While seedstock producers help you as a commercial producer leverage genetics, you can leverage good management practices on the cow herd to couple with their success. One of these management practices is to avoid buying inferior bulls. While price will dictate some of the bull-buying conversations, remember, herd bulls are responsible for a large portion of the genetic makeup of your calf crop and, ultimately, your cow herd.

By using the available tools and talking to your seedstock producers about the needs of your cow herd, you will be able to capture Angus's maternal advantage. |

Editor's note: Authored by AGI staff, "Sorting Gate" is a regular *Angus Beef Bulletin* column featuring herd improvement topics for commercial producers using Angus genetics. 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.

