



By the Numbers

► by **Sally Northcutt**, director of genetic research, American Angus Association

MaternalPlus: When you need to know more

Angus breeders have been successful in implementing selection tools for key breed attributes, including calving ease, marbling, maternal milk and growth. Yet, success comes with new challenges. When the traits remaining are difficult to measure, we reach a plateau in having additional selection tools of economic impact. Essentially, we have characterized genetics of many production traits, but we are falling short in areas such as reproductive expected progeny differences (EPDs) and indexes.

Benefits of MaternalPlus

The primary goal of MaternalPlus is to capture reproductive data to enhance current and develop new selection tools. A vast array of EPDs and dollar value indexes (\$Values) are available to tailor your breeding program to the production environment and to meet your customer needs, but are you missing some key economic pieces?

Benefits of the MaternalPlus program include comprehensive tracking of females in the herd for breeding, production and disposal. These records are used for heifer pregnancy EPDs (HP EPDs) and future longevity selection tools. Granted, the HP EPDs are available on nearly 80,000 animals in the Angus breed, but imagine the potential of having your genetics more thoroughly characterized in this gene pool.

Breeders are receiving limited heifer pregnancy genetic feedback for their herd at this time, unless they are already submitting heifer breeding records. The MaternalPlus program is the ideal way to report heifer breeding records. In fact, this is the primary

Providing additional selection tools that aid both seedstock producers and commercial cattlemen using Angus genetics to make reliable selection decisions requires data collection beyond classic reporting of weights and measures.

requirement to remain in the MaternalPlus program.

Another convenient benefit of MaternalPlus is the availability of calf EPDs for calving ease direct (CED), birth weight (BW) and weaning weight (WW), once the weaning data are processed through the American Angus Association. These selection tools are easily viewed through a participant's AAA Login account even before calves are registered for preweaning selection and culling decisions.

New traits on the horizon

Emerging new traits beyond heifer pregnancy are benefits of MaternalPlus not to be overlooked. Consider the challenge at hand. Reproductive, survival and longevity traits are lowly heritable, indicating that selection for these traits can be frustrating compared to growth and carcass, for example.

With a low genetic component documented in research studies, and a heritability magnitude of 10%-15%, the environment plays a large role in the end result or reproductive performance of the cow herd.

Current research is under way at the Association to develop a longevity genetic prediction characterizing cow productive life for the Angus breed. Reported in months, this new EPD on the horizon will provide a selection tool to enhance genetic ability for cows to remain productive in your herd.

Why MaternalPlus?

Boiling it down, here are the key benefits that make the program important to you:

- Characterizing your cow herd through HP EPDs.
- Access to preweaning EPDs as a selection tool.
- New trait development and EPDs for longevity and survivability.
- Streamlines access to capturing heifer and cow reproductive tracking.
- Expansion of reproductive and longevity EPDs into genomic indicators.

The old saying "you can't manage what you can't measure" holds true for traits like reproduction. The Angus female has a strong reputation as a fertile, production-oriented factory. Providing additional selection tools that aid both seedstock producers and commercial cattlemen using Angus genetics to make reliable selection decisions requires data collection beyond classic reporting of weights and measures. Through MaternalPlus, a new window of data collection and feedback to the cow herd is available, enhancing genetic improvement in female traits like the Angus breed has witnessed in other economically relevant traits.

To learn more about MaternalPlus basics and to enroll, go to your AAA Login account or contact the Association at 816-383-5100.

E-MAIL: snorthcutt@angus.org

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.

MaternalPlus highlights

- To enroll, use your AAA Login account to access the MaternalPlus menu tab.
- Breeders can enroll at any time.
- The voluntary system is inventory-based.
- AAA Login is the site for enrollment and inventory counts.
- Females 20 months and older have an annual \$3-per-cow fee, which includes performance reporting for the cow's calf.
- Participants can access calf EPDs for calving ease direct, birth weight and weaning weight for qualifying calves prior to registration.