By the Numbers

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Spring into breeding

With the winter months behind us, new growth is starting to be seen. Trees are budding, grass is turning green and the snow has transformed into rain. It is with excitement that we can finally say, "Spring is in the air!" For Angus producers nationwide, the next few months are usually filled with anticipation and, sometimes, a little anxiety as breeding season begins to take center stage.

Decisions ahead

Breeding decisions have evolved from the days of picking a sire based on looks, breed or family name to almost a science that now involves both sides of the pedigree. Today, many producers take advantage of the amount of research that is available to them and use those means to formulate the best combination of traits to build their herd.

With reproductive selection tools being a common request from seedstock and commercial producers, the ability to develop genetic predictions, such as expected progeny differences (EPDs) can provide a valuable piece in economic success at the ranch level.

The American Angus Association® is the largest beef cattle breed association in the nation. With that reputation stems a desire for providing programs, services and educational tools to their members and supporters of Angus genetics, and to other arenas within the cattle industry itself.

HP EPDs

The Association debuted research heifer pregnancy expected progeny differences (HP EPDs) in mid-2007 to serve as a genetic selection tool for producers. With more than 40,000 breeding records being used in the calculations, these EPDs are designed to characterize differences among sires in the Angus breed for daughters' heifer pregnancy. A higher EPD value is considered more favorable. HP EPDs are to be used as a tool to increase the chance of a sire's daughters becoming pregnant during a normal breeding season.

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Angus producers have been submitting breeding records as part of their performance data through Angus Herd Improvement Records (AHIR®). Each breeding entry is designed to describe the event in each female's reproductive herd life all the way through her last production day in the herd. It is vital for a producer to understand that their contribution of recording and submitting breeding data to their respective association can only add to the value of the breed.

"These records are powerful in the calculation of genetic values for reproductive efficiency," Northcutt says.

Bill Bowman, chief operating officer (COO) and director of performance programs for the American Angus Association, is confident that the Association is addressing the concerns of its members when it comes to providing genetic selection tools on reproductive efficiency.

"American Angus continues to list reproductive efficiency as a high research priority area to benefit its membership and customers using Angus genetics," Bowman says. Research in this area is difficult to analyze because reproductive traits such as heifer pregnancy and stayability/longevity are lowly heritable (13%).

"This research provides breeders additional insight into characterizing cow genetics valuable to the producer's bottom line, with the most important factor being a live calf in the end," Bowman says.

Selection strategies

Environmental, economic and genetic variables can present themselves to a producer at any time. Sometimes, these variables may affect a producer's breeding decisions or even whether a cow or herd bull remains in the herd. With regard to environmental obstacles, many producers try to manage their cows to thrive in whatever environment is thrown their way.

Lamont Ennis, general manager for Southern Cattle Co., Marianna, Fla., is aware of multiple environmental factors currently affecting the operation.

"The grass in Florida can be green and lush in appearance, but there is not a lot of nutritional value to it. In addition, the crops we planted to supplement with are getting drowned out by all the rain we have had this year," he says. These types of obstacles often work themselves into the bottom line for any producer. And in the end, breeding programs are affected.

"The cows that are here that produce well and are well-suited to this environment stay here," Ennis adds.

The current economic downturn does not appear to be an issue for Kansas breeder Matt Perrier. Perrier, assistant manager with Dalebanks Angus in Eureka, Kan., believes a balanced approach to genetic selection is best during economic uncertainty.

"The increase in input costs has made it easier for customers to understand our reasoning for a balanced approach to genetic selection. Maintaining optimum levels of production traits makes even more economic sense during times of extreme price volatility," Perrier states.

Other arenas of breeding involve the artificial insemination (AI) sector. Many producers utilize an AI program to increase the value of their operations by introducing particular desirable traits into their herds. AI allows the introduction of these traits in a timely fashion and offers the operator an alternative to natural breeding.

Says Ennis, "Cattle have to be really good to stay in the artificial insemination breeding program … if not, they become recipients." Even though an AI program can be a costly maneuver, producers are willing to pay the price.

"For those that believe in AI, the cost/benefit is too big to pass up," says Brian House, beef program manager with Select Sires Inc.

Some AI service companies have seen a slight decrease in semen sales, which they are attributing to uncertainties in the economy. But, regardless of what economic woes may come their way, many producers still believe that AI allows them to increase genetic superiority by seeking out the most desirable traits in order to maximize profits.

Breeding strategies are a quintessential part to any producer's herd management program. Because of continued efforts by beef cattle organizations such as the American Angus Association, reproductive efficiency will continue to remain a top priority. Science-based research will continue to guide producers on their quest of creating the "perfect" animal for their herd.

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.*