

# You Are the Key to Success

*The manager is the most important factor in increasing reproductive efficiency.*

by Lindsay King

It's time to give cows a job description, said Vitor Mercadante, assistant professor of beef reproductive physiology and management at Virginia Tech. And only a good manager will expect her to live up to those standards. This elicited a chuckle from the audience during the Applied Reproductive Strategies in Beef Cattle (ARSBC) workshop hosted Aug. 20-21 in Knoxville, Tenn.

To begin, Mercadante defined what a successful reproductive program looked like: "It should

maximize pregnancy as early as possible in the breeding season and develop heifers that are highly fertile at the lowest cost possible."

The formula for reproductive efficiency, he shared, is:

Repro efficiency = management + selection pressure + nutrition/health + repro technologies

Many management decisions that cost little to no money can have the biggest effects later on, Mercadante pointed out.

"The manager is the number one factor impacting management,"

Mercadante said, sharing results of a study evaluating the differences in pregnancy rates to timed artificial insemination (AI) and within the entire breeding season. He is referencing an equation introduced at the beginning of his presentation. After collecting data on eight herds, the only difference in good and bad traits was the manager.



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— Vitor Mercadante, assistant professor of beef reproductive physiology and management at Virginia Tech.**

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able to understand it later. We have to use that data to make decisions."

A good manager will care deeply, both for positive and negative outcomes pertaining to their herd. This feeds into their attention to detail, which plays into keeping accurate records. They should also recognize the value of relationships within the cattle industry.

When it comes to selection pressure, Mercadante said it helps to write down goals and hang them up. "It is important to make those decisions and write [them] down, so

you will stick to them."

Only about 60% of all operations function on less than 100 days for a breeding season. Simply culling animals that do not breed back and females that calve later will eventually put some more jingle in your pocket. This is a big part of what Mercadante referred to as selection pressure. It's all about making these small decisions that pay huge dividends down the road.

"That also affects longevity," Mercadante said. "Those early calvers will stay in your herd longer and give you more years of production. You just have to keep a record of when cattle get pregnant and when they calve. It's not complicated at all."

An optimal body condition score (BCS) goes hand in hand with both nutrition and selection pressure. Mercadante recognized that many operations don't have a scale on the farm.

"Everyone can do a BCS," Mercadante said. "If you don't know how to do it, your extension agent or vet can teach you. If you can do that every month for a year, it will give you a good idea about when your animals are losing BCS."

The final piece of the puzzle comes down to utilizing reproductive technologies. Some might not be top of mind when "technology" gets thrown around.

Even managing your breeding season and conducting breeding

soundness exams (sometimes referred to as a BSE) on bulls are considered technology for reproduction. In his opinion, estrous synchronization is one of the most powerful technologies currently available that can improve reproductive efficiency. Mercadante also alluded to some new ideas coming down the pike in the next 10 years for continued improvement of reproductive efficiency. **AJ**

*Editor's note: The 2019 ARSBC workshop was hosted Aug. 20-21, by the University of Tennessee and the Beef Reproduction Task Force at the Hilton Knoxville in Knoxville, Tenn. For details on Mercadante's presentation — including the accompanying proceedings and PowerPoint — visit the Newsroom at [www.appliedreprostrategies.com](http://www.appliedreprostrategies.com).*



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