SUCCESS in the cow-calf industry is dependent on the female’s ability to produce a calf annually. Managing the postpartum interval, or the time between calving and when she comes into heat, is important for maintaining your yearly calving interval. The average beef female will have a gestation length of around 283 days. With 365 days in the year, that only gives you around 82 days to get her rebred.

Breeding challenges
Prolonged postpartum anestrus, during which she is not cycling, is a major cause of failure to rebreed or breeding late in the breeding season. Postpartum intervals ranging from 46 to 168 days cause management challenges. Overconing an extended postpartum interval allows for the achievement of optimum pregnancy rates.

There are many factors occurring during the postpartum interval that affect her ability to resume estrus, or to come back into heat. These factors include suckling, nutrition, season, breed, age, dystocia and presence of a bull. After calving, the first process that occurs is uterine involution, which is the general repairing of the uterus. This process usually occurs within 20 to 40 days after calving. Dystocia, or a difficult calving, can increase the length of time needed for uterine repair. While you cannot manage the time it takes the uterus to repair, you can manage some dystocia by breeding to calving-ease bulls, especially on heifers. After the physical repair, there is repair or re-establishment of the hormonal system occurring within 30 to 40 days after calving. The major hormones involved in reproduction are gonadotropin-releasing hormone, which includes follicle-stimulating hormone; progesterone, estrogen and prostaglandins. During anestrus, there is a reduction in follicular development. Increased concentrations of FSH cause the follicular development to resume. During the postpartum interval, the failure of the dominant follicle to ovulate, or release the egg, is due to reduced concentrations of LH. The continued development of follicles containing estrogen, which produces the expression of estrus or heat, stimulates the release of LH, causing ovulation and the development of a corpus luteum containing progesterone. The progesterone is necessary in this process to maintain a viable pregnancy. Progesterone is also necessary for estrogen to be recognized by the animal and for her to show heat. In addition, the decreased concentration of progesterone decreases the LH needed for her to release the egg. It all works together to return the animal to a cycle that is able to start and maintain a pregnancy. Implementing a synchronization protocol using progestrone in the form of a CIDR insert or feed additive, MGA, is a management option to help get back on track hormonally.

Recommended protocols are published yearly from the Beef Reproduction Task Force and can be found at: bee performanceindy.org/resources.html.

As a beef producer, it is most challenging to breed back your first-calf heifers. These animals are still growing and are most likely around 85% of their mature body weight at calving. They are partitioning nutrients into growth, where cattle use nutrients in order of maintenance, growth, lactation and reproduction. During the time they are being rebred, they are also experiencing peak milk production at around 60 days after calving. Nutrition is one area of management that you have the most control over during the postpartum period. To minimize this period, it is important that the animal has enough condition going into calving. To achieve this, it is most advantageous to add condition during a period when the animal has the lowest nutrient requirement. This occurs when she is not lactating and is early in her next pregnancy. Later in gestation, the call increases growth and requires more from the dam. After the call is born, the nutrient requirement for lactation makes adding condition very challenging. This is especially true for the first-calf heifers that are still growing. It is recommended that cows have a body condition score of 5 and heifers 6 at calving.

By managing dystocia, progesterone and nutrition, you should get your herd right on track for rebreeding. If you are interested in using other factors to shorten the postpartum interval, there are options like removing the suckling calves or introducing a gommer bull. These options work well for some operations, but provide management challenges for others. It is best to find what works for you to get her bred.

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