PREPARING YOUR COWS FOR A SUCCESSFUL BREEDING SEASON

The following article is from Dr. Les Anderson, Beef Reproductive Specialist at U.K., discussing how to get optimal rebreeding of your cows next spring.

A successful breeding season actually begins with management decisions made prior to calving. As we move into the winter feeding period, cattlemen need to review their management plan to ensure optimal rebreeding and success. Rebreeding efficiency can be optimized by focusing on body condition score (BCS), early assistance during calving difficulty, scheduling a breeding soundness exam for the herd sires, planning their herd reproductive health program, and developing a plan to regulate estrus in their first-calf heifers and late-calving cows.

Reproductive management begins with evaluation and management of BCS. Body condition score is a numerical estimation of the amount of fat on the cow's body. Body condition score ranges from 1-9; 1 is emaciated while 9 is extremely obese. A change in a single BCS (i.e. 4-5) is usually associated with about a 75 pound change in body weight. Evaluation of BCS prior to calving and from calving to breeding is important to ensure reproductive success.

Rebreeding performance of cows is greatly influenced by BCS at calving. Cows that are thin (BCS < 5) at calving take longer to resume estrous cycles and therefore are delayed in their ability to rebreed. Research has clearly demonstrated that as precalving BCS decreases, the number of days from one calving to the next (calving interval) increases in beef cows. Females with a precalving BCS of less than 5 tend to have production cycles greater than 1 year. For example, cows with a precalving BCS of 3 would be expected to have a calving interval of approximately 400 days, while a cow with a precalving BCS of 6 would have a calving interval of approximately 360 days. South Dakota research illustrates the influence of precalving BCS on the percentage of cows that initiated estrous cycles after calving. This experiment demonstrated that the percentage of thin cows that were cycling in the first month of the breeding season (June) was considerably lower than for cows that were in more moderate body
condition. During the second month of the breeding season, 55% of the cows with a BCS of 4 had still not initiated estrous cycles, while more than 90% of the cows in more moderate condition had begun to cycle. Thin cows need a longer breeding season, which results in more open cows in the fall. They may also result in lighter calves to sell the next year because the calves from these thin cows will be born later in the calving season.

Management of BCS after calving also impacts rebreeding efficiency. Maintenance requirements for energy and protein increase 25-30% for most beef cows after calving. Producers need to plan their supplementation to match or exceed this increased nutrient requirement. Rebreeding efficiency is enhanced in cows that calved thin if their energy intake is increased (Rutter and Randle, 1984). Although the best management plan is to calve cows in a BCS of 5+, increasing the energy to cows that are thin at calving can boost reproductive performance.

Dystocia (calving problems) can severely delay the onset of estrus after calving. Research shows that for every hour a female is in stage 2 active labor there is a 4 day delay in the resumption of estrous cycles after calving. Early intervention helps; 16% more cows conceived when cows were assisted within 90 minutes of the start of calving. The best method is to reduce the incidence of dystocia via selection but early calving assistance will increase the opportunity of cows to rebreed.

One overlooked management tool that can improve reproductive performance is breeding soundness exams in bulls. Think of breeding soundness exams as breeding season insurance. These exams are a low-cost method of insuring that your bull is capable of breeding. Examine bulls for breeding soundness about 30 days before they are turned out.

I have worked in reproductive management for over 20 years and it amazes me how many cattlemen still do not vaccinate their cow herd against reproductive diseases. Several diseases are associated with reproductive loss (lepto, BVD, vibrio, trich, etc). The main problem is that most reproductive loss due to disease is subtle and ranchers don’t notice the loss unless they have a massive failure. Most cattlemen are not aware of their losses due to abortion. Work with your local veterinarian to develop an annual vaccination plan to enhance reproductive success.

Lastly, ranchers need to develop a plan to enhance the rebreeding potential of their first-calf heifers and late-calving cows. Young cows and late-calving cows have one characteristic in common that will greatly impact their reproductive success; anestrus. After each calving, cows undergo a period of time when they do not come into estrus. This anestrus period can be as short as 17 days but can also last as long as 150 days depending upon a number of factors. Typically, mature cows in good BCS
will be anestrus for 45-90 days (avg about 60 days) while first-calf heifers will be in anestrus for 75-120 days.

Research has shown that only 64% of mature cows have initiated estrous cycles about 70 day after calving while on 50% of first calf heifers have initiated estrous cycles at nearly 90 day after calving. Let’s consider the impact of anestrus and calving date for a herd that calves from March 1 until May 10. Bull turnout is May 20 and the length of anestrus for mature cows is 60 days and for young cows is 90 days. A mature cow that calves on March 1 will begin to cycle on May 1 and is highly likely to conceive early. However, the mature cow that calves on April 20 won't cycle until June 20 and her opportunity to conceive early is very limited. A first-calf heifer that calves on April 20 won't begin to cycle until July 20 and will have limited opportunities to conceive. Cattlemen can reduce the anestrous period by fenceline exposure to a mature bull or by treating the cows with progesterone for 7 days prior to bull exposure. Sources of progesterone include the feed additive melengestrol acetate (MGA) or an EAZI-Breed CIDR® insert (Zoetis Animal Health).

Both sources induce estrus in anestrous cows and exposure of anestrous cows to progesterone for 7 days before bull exposure will not reduce fertility. Pregnancy rates increase in these females because inducing estrus will increase the number of opportunities these cows have to conceive in the breeding season.

Managing for reproductive success actually begins at calving. Cows need to calve with a minimum BCS of 5 and with little assistance. Effective planning for reproductive health and management plan for limiting the impact of anestrus will ensure that cattlemen are happy, happy, happy at the end of the breeding season.

MAXIMIZING SUCCESS WITH FROST SEEDING OF CLOVER

Literally thousands of acres of Kentucky pasture and hay fields are over seeded with clover, much of it frost-seeded in late winter. Yet this is one of the few times where crops are seeded where we halfway expect not to get a stand. You would not accept this for corn or soybeans.

Here are a few tips to ensure you have the best chance of getting clover established from a frost-seeding.

1) Address soil fertility needs. Get a current soil test, and apply the needed nutrients. Clovers need soil that is pH 6.5 to 7 and medium or better in P and K. Get the soil test; anything else is just a guess.

2) Select a good variety. Choose an improved variety with known performance and genetics. Choosing a better red clover variety can mean as much as three tons of additional hay and longer stand life. Spread enough seed. UK recommends 6 to 8 pounds of red and 1 to 2 pounds of white/ladino clover per acre. Apply higher rates if using only one clover type. Applying the minimum (6 lb. red and 1 lb. white) will put over 50 seeds per square foot on the field (37 red, 18 white).

3) Make sure seed lands on bare soil. Excess grass or thatch must be grazed and/or disturbed until there is bare ground showing prior to overseeding. The biggest cause of seeding failure with frost seedings is too
much ground cover. Judicious cattle traffic or dragging with a chain harrow can accomplish this.

4) Get good seed-soil contact. With frost seeding, we depend on the rain and snow or freeze-thaw action of the soil surface to work the clover seed into the top ¼ inch of soil. A corrugated roller can also be used soon after seeding to ensure good soil contact.

5) Control competition next spring. Do not apply additional N on over seeded fields next spring, and be prepared to do some timely mowing if grass or spring weeds get up above the clover. Clover is an aggressive seeding but will establish faster and thicker if grass and weed competition is controlled.

Clover can be reliably established into existing grass pastures with a little attention to detail. Soil fertility, variety, seeding rate, seed placement and competition control are the major keys to success.

FEATURE PUBLICATION: 2017 LONG TERM SUMMARY OF KY FORAGE VARIETIES

The University of KY, has just released the trial results from 2017 showing the yield and grazing tolerance of 20 different forage species. Each year, U.K. pulls together the test results from the last 15 years into a comprehensive summary report.

The “2017 Long-Term Summary of Kentucky Forage Variety Trials” shows variety performance in KY over the last 15 years in a user friendly format. Simply refer to one of the 23 tables in the publication to see the varieties that have performed “above” or “below” average over the years. For example, table 2, in the publication, shows that Freedom red clover yield is 109% of average (100%) and common red clover is only 79%. This means ‘Freedom” red clover will consistently out yield common red clover. Also, the more times a variety has been tested the more confidence you can have in its’ potential performance on your farm.

This report and all the detailed forage variety reports are available at the U.K. Forage website at: http://www.uky.edu/Ag/Forage/ForageVarietyTrials2.htm

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