

Beef Cattle Management During Drought: Reproduction Considerations

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Effective drought management strategies for Montana cattle producers should include individual animal records, managing cattle by sex, age, and nutrient requirements, use of assisted reproductive technologies to have a higher proportion of females bred earlier in the breeding season, and having a long-term plan for marketing flexibility of the herd.

Management:

- Nutrition- adequate nutrition is critical for reproductive success of the herd
- Animal body condition by body condition scoring (BCS)
 - Impacted by forage availability and nutritional status
 - Impacts the ability of the animal to breed and how early in the breeding season
 - Poor BCS is indicative of poor nutritional status
 - Inadequate nutrition prior to calving and after can result in longer postpartum interval, failure to conceive early in the breeding season and lighter calves at subsequent weaning
- Manage by sex, age, and expected nutrient requirements
 - Sorting by sex, age, and physiological status will allow for more efficient use of feedstuffs, hay, and grazing resources.
 - Replacement heifers
 - Breeding program- consider synchronization of estrus (ES; can be used with natural service or artificial insemination) to tighten breeding and calving season (MGA or CIDR use)
 - BCS impacts fertility, future postpartum interval, lactation, and subsequent rebreeding
 - Young cows (2- and 3-year olds)
 - Breeding program- consider use of ES with CIDR to induce estrous in anestrous cows
 - Average postpartum interval greater vs. mature cows (recovery and uterine involution)
 - Mature cows
 - Breeding program- consider use of ES with CIDR



- Body condition impacts fertility, postpartum interval, lactation, and subsequent rebreeding
 - Bulls
 - Breeding soundness examination 4-6 w prior to turn out
 - Only use bulls that pass exam
 - Body condition impacts semen quality
 - Can rotate bulls at midpoint of season
 - Bull to cow ratio
 - Mature bulls (3-,4-, and 5-year olds) – 1:25 to 1:50
 - Yearling bulls 1:20
 - Use of ES for natural service – use mature bulls at 1:15
 - Libido
 - Monitor bulls 5-7 d after turn out and weekly thereafter
 - Yearling bulls – monitor more frequently
 - Consider social dominance and age of bull
 - Stronger in older bulls (3-year olds or older)
 - Older, more dominant bull will likely breed more females in herd than a younger bull
- Breeding Program
 - Tighten breeding and calving season to capture more profit at marketing time
 - Synchronization of estrus is a viable option for both natural service and artificial insemination
 - Assess pregnancy early and sell open females earlier
 - Have flexibility in marketing before females lose additional body weight and value at cull cow sale.
- Transportation Stress
 - Ship within 4 d post breeding or wait until after 42 d after breeding to haul females as environmental stress early in gestation can cause pregnancy loss



Options:

- Use of assisted reproductive technologies to tighten breeding and calving season and have more calves born earlier in calving season resulting in older and heavier calves at weaning- potential to market calves earlier
- Early weaning
 - Most beneficial – thin cows and young females (2- and 3-year old cows)
 - Dry cows can be maintained on lower quality pastures or with supplemental feedstuffs
- Selective and limited replacement heifer retention
 - Phenotype and genotype
 - Age and size – older heifer likely to reach puberty and breed earlier
 - Keep heifers out of higher producing cows
 - Moderate sustained rate of gain
- Reevaluate culling parameters
 - Cull earlier
 - Use strategic marketing – flexibility
 - Mouth to age cows - cull aged cows
 - Cow accountability
 - Less productive cows
 - Weaning weight of calves
 - Late calvers
 - Poor temperament
 - Hard keepers

For more information please contact your County Extension Agent or Carla Sanford, Extension Beef Cattle Specialist at carla.sanford@montana.edu

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Webpage - <https://animalrangeextension.montana.edu/beef/> for all things beef cattle related from MSU Beef Cattle Specialists Megan Van Emon and Carla Sanford.