

End of season management to improve cow performance

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Summary

- Stop breeding in July to avoid a prolonged calving season.
- Pregnancy check 5–7 weeks after the breeding season finishes.
- Record BCS in October, identify thin cows and develop a management strategy to improve condition before calving.

Introduction

A compact calving season (≤ 12 weeks) requires a compact breeding season. The breeding season should stop in July, 12 weeks after the farm mating start date. This is necessary to ensure that all cows are calved before the start of breeding next year. Excellent breeding records and a pregnancy check after the breeding season allow an assessment of the herd's reproductive performance. Use expected calving dates and BCS to determine dry-off dates and inform appropriate nutritional management. Knowledge of the expected calving pattern will also help preparations for the calving season.

The breeding season ends in July

It is important to implement a breeding management plan that allows for breeding season duration of 12-weeks or less. Most herds will have completed 12-weeks for a breeding during July (Table 1). Upload all breeding dates to farm software/ICBF.

Table 1. Breeding season and pregnancy check dates

Breeding start	Breeding stop	Pregnancy check
April 15 th	July 8 th	Aug 12 th to 26 th
April 22 nd	July 15 th	Aug 19 th to Sept 2 nd
April 29 th	July 22 nd	Aug 26 th to Sept 9 th
May 6 th	July 29 th	Sept 2 nd to 16 th

Complete pregnancy checks in August and September

Pregnancy checks by ultrasound examination for the whole herd should be performed 5–7 weeks after the end of the breeding season. Having good breeding records from both AI and natural service events will help to confirm the pregnancy status, and to determine the stage of pregnancy. At five to seven weeks after the end of the breeding season, pregnancy can be determined for AI events that took place during the first six weeks of breeding (yes or no), and an accurate assessment of the stage of pregnancy is possible for cows that conceived to natural service during the second six weeks of breeding. Hence, an expected calving date can be calculated for all cows. If a herd pregnancy diagnosis is delayed until a later date (e.g., Nov), an accurate assessment of the stage of pregnancy is no longer possible.

Pregnancy status can also be determined using milk samples. This test is accurate from week four of pregnancy onwards, but it can only provide a yes or a no answer (i.e., it cannot indicate stage of pregnancy, twins etc.). There will also be some inconclusive results (~5%), which require retesting at a later date. The choice of method for pregnancy diagnosis will depend on labour availability, animal facilities, cost, and level of detail required (twins, stage of pregnancy). Upload pregnancy results to farm software/ICBF.

Assess body condition score in October

Cows should be dried off in the body condition score (BCS) they are expected to calve down in (BCS 3.0 or 3.25). Cows that are thin (≤ 2.75) when they calve down have poor subsequent fertility. Mid to late October is a good time to assess BCS because there is sufficient time to identify thin cows and take action to improve BCS. Cows that are thin (BCS ≤ 2.5) in late October and due to calve early (i.e., late Jan or Feb) should be allowed a longer dry period and supplementation if necessary. Although placing these thin cows on a once a day milking regime will improve BCS, the improvement is small (< 0.2 BCS units). The requirement to supplement the diet during the dry period should be based on silage quality analysis and BCS (Table 2). Where supplementation is required, rolled barley will suffice and avoid high calcium supplements.

Table 2. Dry period management of body condition score

Silage DMD	BCS ≤ 2.5 10–12 weeks dry	BCS 2.75 8–10 weeks dry	BCS ≥ 3.0 8 weeks dry
> 72	Silage + 1 kg meal	Silage ad lib	Restrict silage
68–72	Silage + 2 kg meal	Silage + 1 kg meal	Silage ad lib
64–67	Silage + 3 kg meal	Silage + 2 kg meal	Silage + 1 kg meal

End of season culling decisions

Early culling helps to extend the last rotation and prioritise pasture for the most productive cows. Cows to be culled from the herd should be identified using the Cow's Own Worth (COW) index. The accuracy of the index is improved by providing milk recording, health and fertility records, and genotype data. See paper on page 194.

Conclusions

End the breeding season in July to avoid a prolonged calving season. Schedule a pregnancy check to occur at five to seven weeks after the end of the breeding season to identify non-pregnant cows and derive an expected calving pattern. Combine pregnancy checks with breeding records to determine expected calving dates. Assess BCS in October and take action to improve thin cows. Target a BCS 3.0 at dry off, and maintain BCS at 3.0 or 3.25 during the dry period.

