

Seasonal Single Calving

agCap CEO, Wolfie Wagner believes that the future of our Australian pasture based dairy industry rests largely with ensuring that moderate sized pasture based dairy farming businesses become increasingly efficient. Seasonal single calving is a strategy that can contribute to efficiency.

Wolfie defines the single calving model as having a single calving period once per annum that ideally matches seasonal feed supply. Well executed single calving models may result in no cows being milked for a period of approximately 30 days. Alternative calving systems (Dairy Australia 2019) adopted by Australian dairy farmers include:

- Split calving where cows calve in two or three distinct calving periods each year, and
- Year-round calving where cows calve in at least 10 months of the year. Year-round calving can also include batch calving where cows calve in multiple batches throughout the year.

Dairy Australia 2017, p2 suggests that simple systems are easier to manage and implement. Simple systems (e.g. single calving) are easily replicated and can be implemented at scale. Single calving further offers the benefit of having a finite set of tasks matched to a finite set of resources (Griffin C 2018 pers. comm., 4 July). Inconsistent cash flow and historic milk processor payment systems are two perceived barriers to the adoption of the single calving model.

Implementing a seasonal single calving model allows dairy farm operators to match calving (feed demand) to the seasonal pasture growth rate curve. This correlation is depicted in Figure 1.

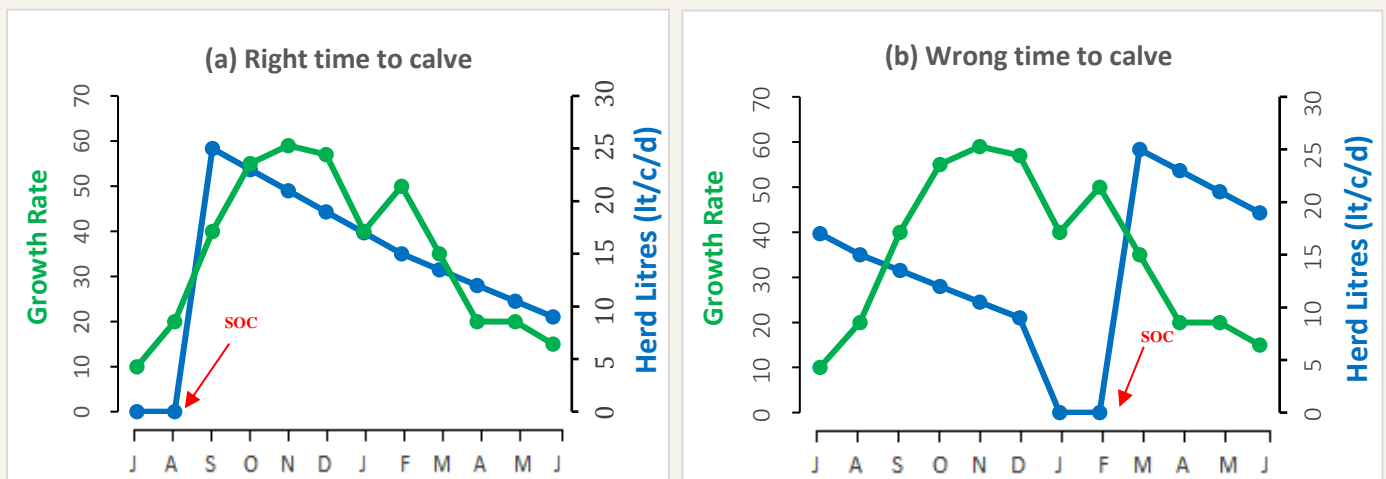


Figure 1. Correlation between production or feed demand (—) and pasture growth (—).

SOC = start of calving

Adapted from Shephard 2018, p. 15.

To monitor the success of a single calving model, farmers need to keep accurate records to enable calculation of some key measures (see Table 1). Table 1 includes targets which agCap has achieved with good breeding goals and management systems.

Table 1. Reproductive performance measures

Primary reproductive measure	Current industry performance (Dairy Australia 2017)	Industry target (Dairy Australia 2017)	agCap target
6-week in calf rate	50%	>71%	>80%
End of mating not in calf rate	21% (21 week joining)	<20%	<10% (8 week joining)
Number of open days between end of calving period and start of mating	0	Not Available	40

To be able to compare reproductive performance between farms, clearly defined indicators need to be used:

- 6-week in calf rate = the number of cow’s pregnancy tested in calf to the first 6 weeks of mating as a percentage of cows at the start of the mating period, and
- End of mating not in calf rate = the number of cow’s pregnancy tested not in calf to the whole mating period as a percentage of cows at the start of the mating period.

The major risk of single calving is associated with low in calf rates where the options for these not in calf cows are limited. In other models (e.g. split calving), not in calf cows are simply carried forward into the next calving period. This carry over strategy however can in some instances negatively impact the long-term fertility in our herds. Ideally in a single calving model the not in calf cows are sold as cull cows thereby decreasing the number of replacements bred from these potentially lower fertility cows.

agCap dairy asset management has a focus on whole farm systems and as such aims to ensure that people, process, livestock and pastures are structured and aligned to ensure the best prospect of assets performing above average. Successful single calving models will impact our dairy business in each of these business parameters including:

- **People** – single calving allows the on-farm management team to better allocate their limited resource of time by having a defined set of tasks (Figure 2).
- **Process** – single calving assists with all processes including livestock record keeping. All processes and tasks throughout an annual season are clearly defined.
- **Pasture** – seasonal single calving allows better utilization of our cheapest feed source, pasture. Optimizing pasture grown and consumed (i.e. increasing percentage of home-grown feed in the cow’s diet) is a key driver of profit (Beca 2018 slide 19).
- **Livestock** – single calving ensures that all lactating cows are at a similar stage of their lactation at any point in time throughout the year. This virtually eliminates the need for individual feeding cows grain supplements based on production or stage of lactation. Furthermore, there are minimal groups of replacement heifers being reared again simplifying processes.

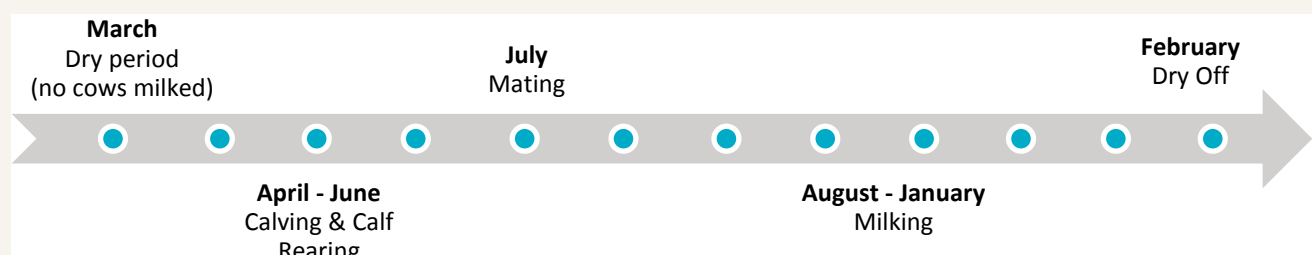


Figure 2. Annual timeline of livestock tasks (Southwest Victoria autumn calving example)

Single calving models will also impact the longer-term sustainability of our dairy farming businesses:

Greenhouse gas (GHG) emissions – maintaining single calving requires a significant focus on fertility. Improving the fertility of the herd means that cows will live longer (Shephard 2018, p. 14). The consequence of increasing the longevity of cows within the herd leads to a decreased requirement for replacements. This will have an impact on reducing total GHG emissions.

Animal welfare – bobby calf disposal is an increasingly important issue for the Australian dairy industry. Concerns have been raised since around 2011 (The Australian 2011). Having a single calving model has both positive and negative impacts on this issue. Having many bobby calves to deal with in a single calving period increases the work load of the farm management team however this also presents an opportunity. Being able to focus on rearing bobby calves in one period can lead to having larger numbers of weaned bobby calves within a tight age bracket which may appeal to more buyers looking to raise these animals.

Rebuilding our industry will involve more than simply having an ‘Australian Dairy Plan’ it will involve a concerted effort to improve our operating efficiencies. At agCap we believe with conviction that having a seasonal single calving that matches our pasture feed supply will be a major step in increasing our operating efficiency.

Note: agCap acknowledges that there are farmers running profitable alternative calving models and that single calving will not be suitable for all dairy farm operators.

References

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