

Managing individual cows in year-round calving herds

CASE STUDY 03 CRAIG AND PHIL TATE, ILLAWARRA COASTAL BELT

Craig and Phil Tate operate a large dairy herd on the Illawarra coastal belt. The warm winters and even annual rainfall pattern allows reliable pasture growth throughout the year, which suits their flat milk contract.

Their aim is to ensure each cow receives the individual attention she needs to maximise her growth, production and reproduction. This can be difficult in large, year-round calving herds where at any one time cows will be at different stages of their production and reproduction cycles. Craig and Phil have been very successful and have been able to continually improve reproductive performance whilst increasing the herd size.

This article describes the system and processes they use to help them manage each cow individually in their large herd.

Table 1 Farm Description

Herd size	600 cows milked each month of the year
Calving pattern	50 cows calve each month of the year
Milking cow stocking density	2.8 cows /Ha
Feeding system	Pasture dominated with some concentrates and fodder to fill gaps
Reproductive performance	100-day in-calf rate = 50% 200-day not-in-calf rate = 13% 80-day submission rate = 84% 1st service conception rate = 47%.



Challenge

Craig and Phil aim to effectively manage every cow so they get the appropriate attention they need to perform. No cow should 'fall through the cracks'. This is a daily challenge for managers of large year-round calving herds.

The Tate system

Know what needs to be done

The Tates meet this challenge with good systems, processes and knowledge. It's helped by the herd being divided into two with the early-mid lactation cows milked in one dairy and the late lactation and cull cows milked in another. This allows them to focus on the cows that are most in need of attention for optimum production and reproduction. Phil and Craig know what the herd has to produce to achieve an even milk supply across the year. They understand the seasonal challenges of their farm and how to get their cows to work by growing, feeding, milking, calving and mating them effectively. They use the InCalf Book for Dairy Farmers, which is a valuable source of information on cow reproduction. Whilst basic technical knowledge is essential in all dairy herds, in large herds it must be supported by an effective system that keeps track of all cows, such as a system like the Tates'.

Keep good records and use the data to help you

With 600 cows it is impossible to remember everything about each cow. The Tates use and rely on their cow and herd data to keep every cow on track. Phil's herd management software is EasyDairy. A well-worn and tough farm laptop is kept at the dairy and Phil does daily data entry before heading home each evening. By keeping the farm data up to date on EasyDairy each and every day, action lists and a list of cows to observe can be printed for the following day and pinned or written onto the board in the dairy. This simple process makes the data 'live'— and it brings everyone into the game! All workers check the whiteboard and lists each day and also use them to record their findings. This information is then uploaded onto the computer by Phil at the end of each day.

Develop an effective work routine

Knowledge and data are then combined with a robust and regular system for managing cows as they move through their lactation and dry period. Working with their herd vets, the Tates have set a 55-day voluntary wait period after calving. They need 50 cows to calve a month and aim for an inter-calving interval of 13 months. These numbers have been set after careful thought and discussion, and the key to achieving these targets is the work plan. The work plan is a system based on monthly veterinary herd health visits to ensure that each cow is examined and treated, if required, at exactly the right time.

The vet visits every 28 days—and always on a Monday. Both are important! The 28-day interval means that once a cow has passed her voluntary wait-period she receives a heat mount detector and tail paint. She is watched for heats and will be examined by the vet if still unmated at the next visit. This means no cow goes more than about 30 days unmated and unexamined (less than 2 cycles). If she needs to be sent into a synchrony or non-cycling cow treatment program her treatment will also start on the Monday. This times all subsequent treatments to the same weekday, which helps work flow. For example, cows in an Ovsynch program have injections only on a Monday or a Wednesday and AI occurs on a Thursday. The Tates and their workers know that every Monday and Wednesday there may be cows to draft and inject and extra cows for AI on a Thursday. By grounding the start of all these programs on the same day of the week the weekdays themselves provide a guide as to what has to happen that day. This routine helps keep the operation running smoothly. The herd health visits are structured for the afternoon milking and the vet is asked to come early if there are sick cows or other routine vet work to be done.

Good systems and processes combined with a high level of knowledge are needed to successfully manage a dairy herd

Have appropriate infrastructure

The cows to be examined and/or treated are programmed into EasyDairy and auto-drafted after each row of cows is milked in the herringbone shed, which provides a steady flow of cows through the work area.

The auto-drafting facility is essential and Craig and Phil often wonder if they could have expanded beyond 300 cows without it. Auto-drafting provides a steady supply of cows at a comfortable working pace for the vet. Phil has his desk and trusty farm laptop set up near the drafting race to keep the information flowing and the data updated as the cows are examined. He can tell the vet any necessary information as each cow is examined and he enters any treatment or decision into the computer as they occur.

Craig works the stock, applies heat mount detectors, refreshes tail paint, administers treatments, drafts cows after examination and maintains cow flow through the vet crush. Everyone has their specific role and this keeps things flowing smoothly. The computer records help Craig and Phil make decisions 'cowside': a visual check combined with a view of her records and discussion with the vet mean the right decision is made on the spot. The drafting area is out of sight of the herringbone so the vet examinations don't upset the milkers. The cow shed is large, with a high roof and good air flow. This makes the working area comfortable for staff and cows alike. This combined with the steady cow flow makes the work pleasurable. The Tates' work satisfaction is further enhanced by knowing they are keeping on top of things, are intervening at the right time and making timely decisions to ensure each cow is getting the best chance she can get to excel.

Be diligent: keep on top of things

Maintaining records on year-round herds demands daily diligence if the action lists are to be accurate. Another aspect to good records is to deal with errors or anomalies in the data as soon as they are found. A lost ear tag means a cow has lost her records until it is replaced; differences between the computer and the herd count of the milking or dry cow herd means that a cow has broken into the wrong herd or a record has not been updated. These errors are tracked down and corrected as soon as practical usually on the same day it is detected. This daily diligence and chasing each error down keep records accurate. Accurate records save time in the long run because the time spent maintaining records is returned to you with more efficient herd drafts. The work flow will only be smooth if equipment and facilities are maintained so when things break or ear tags are lost, they are attended to as soon as possible. Craig and Phil have had to take the welder to the auto-draft gate paddles more than once.

Why it works

The Tates' success can be attributed to:

Knowledge: Craig and Phil understand the essentials of cow management. They are up to date with information on cow health, nutrition, production, milk quality, reproduction, mating, AI and genetics. A good level of knowledge to successfully manage a dairy herd.

Records and data: All essential cow events are recorded into their EasyDairy program daily, which usually only takes 10–15 minutes a day. The data is used every day to produce action lists and check-lists, which are printed each day and written or pinned to the board in the dairy. This makes the records 'live' so everyone on the farm can see what is happening and needs to be done and all can contribute to keeping the records up to date by writing on the appropriate list.

Systems: Cow events are grouped and regular checks are timetabled. A monthly herd health visit underpins the system. Here, every cow that is due for an action (e.g. post-calving examination, reproductive examination, pregnancy test, etc....) is drafted and examined. The computerised records and automatic drafting help the system to work by putting the right cows in the right spot for inspection.

Infrastructure: Good sheds, race, crush and auto-draft facilities mean the cows can be worked with minimum stress whilst maintaining satisfactory cow throughput. As a result, the cows are calm and easy to work.

Diligence: Things inevitably go wrong but problems are fixed as soon as they are identified. Careful attention to detail means the Tates always know what is and should be happening in the herd each day allowing correct decisions to be made on time every time.

Careful attention to details and accurate records mean that even in a large herd every cow can be managed individually to maximise her performance