

# **Opportunities and Barriers to Improving Staff Rosters on Waikato Dairy Farms**

**A Report for Kellogg Rural Leadership Scholarship 2014**

Lycinda Lett

October 2014 (edited June 2015)

## **Contents**

1.0	Introduction.....	3
2.0	Methodology.....	3
3.0	Background.....	5
4.0	Limits to Change.....	7
5.0	Supporting Change.....	9
6.0	Future Prospects.....	10
7.0	Conclusions.....	12
8.0	References.....	14

## **1.0 Introduction**

There are a large and varying number of roster options in the dairy industry. Over time Canterbury and Southland have become predominant dairying regions which are often seen to run shorter rosters with more staff. Some Waikato dairy farms are still seen to run very long rosters on-farm providing staff with limited time off.

The purpose of this study was to investigate how current roster systems on Waikato dairy farms were established and to seek information on areas for improvement. The research aimed to identify key drivers for change and understand how these drivers could be used to improve rosters for the benefit of employers, employees and overall business.

Promoting better rosters on Waikato dairy farms would have a number of benefits not only to the industry but also to local communities. Shorter rosters would improve on-farm health and safety, staff welling, allow better social balance, retain employees within the dairy industry and the Waikato region and bring new talent into the industry.

## **2.0 Methodology**

A farmer panel of 7 farmers with varying farm sizes, staff numbers, farming systems and locations were surveyed to collect farm specific information and gather a farmer perspective. A sample of four rural professionals working in the people management sector was interviewed individually, gathering information on their view of rosters on Waikato dairy farms.

This method was used to collect a range of opinions about current on farm practices from varying perspectives. Farmers of differing farm scale were expected to show differences in their opinions and answers. As the farmers were discussing their individual operations the risk of group think was low and open discussion in the group allowed for a good flow of feedback and information. Rural professionals were interviewed individually as they had strong opinions and therefore any group think or bias was removed. The rural professionals provided an external view of the rosters in the Waikato and often saw the 'big picture'.

The questions asked of the farmer group were as follows:

1. General information about their farms (Cow numbers, farm system (1-5), Staff numbers, On farm infrastructure, current roster length, number of houses on farm)
2. How did you decide on your roster? And who was involved in the process?
3. What works the best in your roster?
4. What is limiting about your roster?
5. How do you manage time off?
6. Relating to roster changes:
  - a. Have you ever changed your roster, if so why?
  - b. How did you plan the change?
  - c. What worked?
  - d. What didn't?
7. Are you aware of any rosters not represented here today? (List them)
8. What are your views on these rosters?
  - a. Are they appealing to staff and employers?
  - b. Do they/would they work?
9. Does the Waikato need to change?
  - a. What will prompt/drive change?
  - b. What would be the benefit of changing?
  - c. What would limit change?

The questions posed to the rural professionals were as follows:

1. What rosters do you see used? (Most popular/common)
2. Why do the farmers you work with use the rosters they have? (What are the key drivers?)
3. What do you think the key drivers of decisions around rosters should be?
4. Have you seen/been involved with any farmers going through the process of changing their roster? If so why did they change and how did they approach the change? (Choosing the roster and implementing change)
5. How much of a role does scale play in getting the most effectively rosters for both staff and the farm?

6. Have you worked with any small scale farms? (e.g. less than 350 cows) What seems to work best for them? What do you think they could do to improve in a practical way?
7. Of the farms that you think could change their rosters to be more beneficial to staff wellbeing and farm productivity, what is it that you think stops them or prevents them from changing?
8. What can we as rural professionals do to help change in the right direction?
9. What tools do farmers need to make better staff rostering decisions?
10. What opportunities do you see for roster changes on farm?
11. What do you think the future of staff rostering will look like, say 10 years from now? What will prevent or aid farmers in getting there?

The answers and comments from each group were then collated and common responses were noted.

### **3.0 Background**

Rosters are defined by work and people scheduling to complete daily tasks that are required to operate a business. They are a plan of when people work and when they have scheduled time off. In the case of the dairy industry this usually means defining the number of days to be worked consecutively before defining the number of consecutive days to be off work.

There is currently very limited research in the area of staff rosters on New Zealand dairy farms and the impact that this has on staff performance and farm productivity. The small amount of research that is available is internationally based and comes from shift length studies in other industries such as medicine, mining and forestry. This available research suggests that shorter rosters with longer hours worked on working days showed declines in productivity as the day went on but that overall productivity is improved (Baker, Campbell, & al., 1990) (Kossoris, 1947) (Pasicott & Murphy, 2013). There is conflicting evidence on the impact of shorter rosters with longer hours worked per day on staff fatigue, wellbeing, social life and health and safety. One of the key messages from the available research is that staff involvement in roster design creates buy-in and positive outcomes for all parties involved (Ahasan, 2002) (Campolo, Pugh, Thompson, & Wallace, 1998) (Smith, Folkard, Tucker, & Macdonald, 1998). The limited amount of New Zealand research linked to the dairy industry means that employer agreement to improve working rosters is difficult without facts to back up the potential benefits.

Rosters form the basis for workforce planning in all business operations, not only specific to dairy farms. The roster length can impact on the jobs to be completed, task completion rate, overall performance of a business, performance of sectors within a business, people wellbeing, social lives, fatigue, health and safety, staff retention, staff motivation and people and business productivity (Ruch, 1994). These factors are all important on dairy farms as they impact on compliance (legal requirements for health and safety and human rights and welfare), productivity, profitability, leadership and team culture.

The rosters currently used on Waikato dairy farms are similar to those used all around New Zealand. Whilst scale allows more flexibility and ease of planning for rosters often history and traditional behaviour were more commonly linked to less desirable rosters. Those farmers interviewed used a range of systems, with longest number of days worked consecutively being 12 excluding calving. The roster lengths of each farmer were nine on, two off followed by nine on, one off; every second weekend off with a three day weekend; a total of 60 days off given all year taken as the employee wanted them (roughly every second weekend off after calving); and two farms operating 12 on two off. Scale had little impact on these rosters shown by the 12 on two off roster being operated on a farms with 1100 cows and 400 cows. The flexible roster which gave staff 60 total days to use as they wished was utilised on two 250 cow farms. One could assume from this selection of farms that flexibility works better with smaller scale however further research with smaller scale farms would be required to confirm this.

Rural professionals encouraged roster lengths of 12 on, two off as a minimum and in some cases would not work with clients who had rosters which only offered one weekend off per month. Both farmers and rural professionals acknowledged that there were farmers practicing rosters in the Waikato of only one weekend off per month. These rosters exist due to the history of dairying in the region and can be hard to change as the operators strongly believe that staff should work as hard as they did in the past and that it will be too costly to give more regular time off. These long rosters can also be linked to farmers progressing in the industry that are trying to cut costs, normally contract milkers, variable order sharemilkers and herd owner sharemilkers.

Decision making behind roster systems has been variable due to a number of reasons, the first being lack of research as mentioned above. In most cases staff are not involved in the roster decisions but can be involved in contributing to a season or months roster plan (i.e. they can pitch in with days they want off but overall do not decide the length of the roster). Roster

systems to date have been kept simple (one weekend turnabout between two staff is easy to plan) and also minimum standard has driven roster lengths (what is the bare minimum we can get away with?). When panel farmers rosters have been changed it has often been driven by a new employee with exposure to better/more advanced practices and therefore examples of how to make it work and a relatable experience motivated the employer. Rural professionals stated that regulation has also changed some practices particularly related to public holidays and days in lieu being used to create three day weekends in the roster year-round.

Rosters used by the farmer panel showed that successful rosters used advanced planning to provide all staff with their desired time off. A successful roster can be defined as meeting high standards for health & safety, people wellbeing, social balance, whilst reducing worker fatigue, achieving farm performance targets and enabling staff to be efficient at performing tasks. The flow on effect of these factors is that staff should be more likely to want to stay in their jobs and will be highly motivated to achieve farm targets and their own goals (Kerin & Carbone, 2003) (Wilson & Rose, 1978). The surveyed farmers also had some time off/roster rules to help with fairness in the roster and to make sure all staffing requirements were met on-farm on a daily basis. These rules involved:

1. The key times of year where time off would be difficult and also what times would be best.
2. Defined the number of people that were needed to run the farm on any given day.
3. Used a calendar system for staff to schedule in annual leave with most using a first in first served basis at busy times such as Christmas.

#### **4.0 Limits to Change**

Current practices are not always sustainable, with employers often not building themselves into the roster. This is a limitation to change as farmers often utilise their own time to cover staff being off work. Flexibility is also a key to a good roster with happy staff. However not all systems allow for this, as some farmers require notice of time off at least a month in advance.

For small farms (less than 350 cows) scale limits the flexibility to offer regular weekends off. Employers see the expense of having to hire regular relief staff as more costly and of less benefit to the business than having socially balanced and less fatigued full time employees. In these cases rural professionals agreed that the salary needs to either reflect the number of hours

worked better in the poorer roster or that staff should be offered an hourly rate to fairly compensate them for the fewer number of days off.

Interestingly the panel noted that for owner operators financial cost was not believed to be a limiting factor to improving rosters but that population and location drove the ability to source good relief milkers and therefore limited roster flexibility.

Whilst location of a farm can limit the ability of a farmer to strive for a shorter roster as relief milkers can be harder to source, it is also important to note that the roster needs to be suited to the location of the farm to attract the right people to the job. An isolated farm requires more regular time off or a larger number of days off in one hit to enable staff to leave the farm to visit friends and families whom they may have moved away from. Advertising a shorter roster for a more isolated job may attract a larger number of candidates. There is therefore a conflict between sourcing the best possible staff and allowing them enough time to travel away from the farm during time off and sourcing relief staff to cover them when they are off work.

In general farmer perspective was that there were not enough farmers operating poor rosters to drive the need for change, and that those farmers would be very unwilling to change anyway. This was supported by the rural professionals view that longer rosters were linked to the history of Waikato dairy farming and that those farmers believed staff should learn to tough it out and that they needed to learn to deal with it if they wanted to be good farmers and progress in the industry. In contrast to the farmer panel the rural professionals strongly believe that the number of poor rosters being used is a large issue in the Waikato. The rural professionals interviewed all also stated that they had a strong recommendation towards a minimum roster of every second weekend off and that they preferred not to work with farmers running poorer rosters. This means that the farmers operating rosters with only one weekend off per month were more likely to not have contact with a professional who could help them to establish a number of options to improve.

The history of the Waikato region is a road block for improvement as older farmers are more likely to have the mind-set that staff need to 'toughen up' and 'get on with it'. This limitation is difficult to change and roster improvements are likely to be seen only as a response to regulation. Younger farmers are more likely to run shorter rosters and so part of the benefit of change will be seen in the next few generations. This was a view shared by both the panel farmers and rural professionals, whereby age of employers will encourage change to rosters but until then roster lengths are likely to remain similar to today.



The lack of research linking productivity and staff rosters means that there is limited desire to change and that people will only change because they are made to (i.e. by regulation). Personal experience has shown that some of the better rosters used have been designed by career changers (those employers that have previously worked in other industries) and those with experience from farms running shorter rosters successfully (in some cases overseas farms).

## **5.0 Supporting Change**

To assist change to happen farmers should brainstorm all possible ways to run their farm, with staff helping to contribute ideas at this level. The brainstorming process puts all options on the table and helps farmers to establish which options will align with their farm practices and also the business values and goals. Employers need to be encouraged to sit down and figure out how much time the farm needs to operate at a profitable and productive level and work backwards. Unless people know what their requirements are it is very difficult to get enough work done to successfully complete all the goals and targets of the business.

Staff should be offered the opportunity to contribute to what the roster looks like, including the opportunity for staff on the same farm to potentially work different rosters, as long as it is shown to be fair so that overall the person that works more days or hours is paid accordingly.

Having structures and systems in place will promote change and make it easier for example having a roster description like a job description that states when annual leave needs to be notified by, how many days off must be worked and taken off.

It was noted that the link between farm productivity and errors made had not been connected to roster length and staff fatigue. This indicates the importance of further research in this area especially specific to the New Zealand dairy industry. Without proof of benefit and successful evidence nothing will change.

Change will only take place when there is the desire to make a difference or regulation is enforced. There are no tools which will cause a farmer to change roster however there are tools which will support those farmers that do decide to change. Of particular use is the DairyNZ roster builder (to be released in March 2015), which will enable farmers to get an idea of a roster plan and tweak to suit rather than starting with a blank slate.

People management is not the biggest concern to most farm businesses as it is much harder to benchmark and manage. To drive change in the industry and particularly the Waikato region,

roster length and hours worked in relation to staff performance and the importance people on farm needs to be continually discussed. To drive change information needs to be shared and farmers need to be able to share their successes with each other. Those that are changing need to be nurtured so that the change goes ahead successfully and they can become an example to others. People coming on to the farm from outside the business can also promote change by highlighting things that the employer may not notice on a daily basis. Sometimes a comment from a vet noticing the fatigue of staff can prompt thought into ways to resolve fatigued employees and therefore get employers thinking about their rosters. As a group rural professionals need to work together with farmers to help them improve the whole farm system.

## **6.0 Future Prospects**

An ideal situation would be one in which a farming business is viewed similar to town businesses operating seven days a week or a 24 hour operations. There is the ability to borrow ideas and practices from other industries to create successful rosters and businesses without re-inventing the wheel. There are seven day businesses operating in town that still run successful rosters and have busy times too; the dairy industry shouldn't be given lee-way for the calving period just because it is busy.

As mentioned earlier not everyone in the industry wants to progress to farm ownership; we now have career farm assistants and managers. This is all they want to be, so the industry needs to adapt for them. There is a requirement to provide life balance so that these people can stay in the industry. In the future there is the potential to have more of these career type positions held and therefore managing the time off and number of consecutive days worked is very important for these employees.

Currently rosters are mainly driven by historic events, decisions and systems. Future rosters and planning need to be more flexible to allow the system to work for all people involved in the relationship; as a lot of rosters today are driven by fitting the people to the farm and not the farm to the people. Rosters will need to consider risk management, employee fatigue and wellbeing. There are a number of ways to consider all of these things, including usage of hours worked rather than days worked in a roster. If a limit to the number of hours worked in a defined period is set then at busier times staff are likely to have more frequent days off but are also more likely to perform better, make fewer mistakes and generally be a more pleasant and contributing member of the team. To allow flexibility into such systems the dairy industry will

need to realise that an hourly rate payment may be more practical and that not all staff will want to work the same hours in a week. By calculating the total number of hours required to run the farm per year a number of positions can be advertised to fulfil the farm needs (finding the right people for the job then becomes easier). An hourly rate payment simply makes it fairer if two employees work different hours per week. The industry would look very different in terms of employment if this were the case, as there are very few farmers who would currently truly understand the number of hours required to successfully operate their farm throughout a year and many would be put off by having staff operating different rosters. Long term it is a practical solution to farm rostering and was suggested by a number of rural professionals. The result would be a very flexible roster system and would mimic a number of businesses in other industries.

The dairy industry needs to better promote itself as a whole package to potential employees. It is not necessarily a bad industry to work for but it has often been poorly advertised. What the public sees is that it operates long hours but doesn't see that often a job comes with a rent-free house, no commute required, and other perks.

Those farmers that have shorter rosters have already noted differences in staff performance; they are better at making good decisions, have a 'spring in their step', treat cows better in the shed and are generally more pleasant to work with. If these factors could be confirmed and shared then farmers would be more likely to change. Along with this, those that do decide to change need to be assisted to make sure that the change is a success so that they become good examples for others. It is worth noting that of the farmers in the discussion panel who had made a roster change none of them regret the change or would go back to their previous roster.

From the perspective of a farmer and a successful farming business it needs to be understood that shorter rosters are not necessarily the answer in all cases. If progression through the industry is a goal for an employee then at one stage or another in their career they will be faced with longer hours and fewer days off as they will be running their own businesses. The longer roster does prepare them for the reality of their goals and dreams. As mentioned previously there are those employees who are happy to make a career of their current position so the systems need to be designed in a fair and appropriate manner to suit all needs and requirements. It is imperative that people are remunerated for the work they do no matter what the roster so that the dairy industry stands with a good employment reputation. It could also be argued that it is important for all employees to be on a decent roster so that those that do

progress have the knowledge and skills to make sure they provide themselves with adequate time off and that they treat their own staff fairly in the future.

## **7.0 Conclusions**

There are a range of rosters currently being run in the Waikato. Of these rosters the poorer ones are a result of historic practice more so than cost. Those that are operating under these longer rosters (of no more than one weekend off per month) are less likely to be engaged with a rural professional specifically for people management.

It is not a lack of tools inhibiting change to roster length on farm but more so a lack of desire to change for multiple reasons including supporting evidence. There is a lack of research in the area of roster length and its impact on productivity on farms. Research and case studies would support and encourage farmers to change as they would be able to utilise real life examples.

Rural professionals and farmers together need to better promote the dairy industry and its benefits to potential employees. They also need to work together to encourage better roster management on-farm by making it a commonly discussed topic.

In the future a shift to hourly wages, greater roster flexibility and fitting the farm to its people will benefit the perception of the industry and help to advertise dairying as a valid career path. There are likely to be more employees staying in particular roles as a career choice rather than progressing who need fair rosters to keep them in the industry and promote farm performance.

Overall current roster lengths in the Waikato are manageable. However the ladders need some encouragement to improve their minimum standard. As the next generation step into people management roles roster lengths are expected to improve, however these younger employers need to be supported through the change process to ensure that the change is successful and beneficial. Employers need to review in detail the staff hours per year required to operate their farm and base their staff requirements on total required work hours. Systems could be learned from town businesses operating seven days per week and would create a better perception of the dairy industry as a whole. The reality of people management on dairy

farms is that they are no different to 24 hour, seven day per week city jobs, and the dairy industry needs to improve its systems and structures to keep up.

## 8.0 References

- Ahasan, R. (2002). Human Adaptation to Shift Work in Improving Health, Safety and Productivity - some recommendations. *Work Study (Vol. 51)*, 9-16.
- Baker, T., Campbell, S., & al., K. L. (1990). *Control Room Operator Alertness and Performance in Nuclear Power Plants*. Palo Alto, CA: Electric Power Research Institute Report NP-6748.
- Campolo, M., Pugh, J., Thompson, L., & Wallace, M. (1998). Pioneering the 12 Hour Shift in Australia - Implementation and Limitations. *Australian Critical Care (Vol. 11)*, 112-115.
- Kerin, K., & Carbone, J. (2003). *Financial Opportunitites in Extended Hours Operation: Managing Costs, Risks, and Liabilities*. Lexington, MA: Circadian Technologies.
- Kossoris, M. (1947). Hours of Work and Output. *Monthly Labor Review (pre-1986) (Vol. 65)*, 5-14.
- Pasicott, P., & Murphy, G. (2013). Effect of Work Schedule Design on Productivity of Mechanised Harvesting Operations in Chile. *New Zealand Journal of Forestry Science (Vol. 43)*.
- Ruch, W. (1994). Measuring and Managing Individual Productivity. In D. Harris, *Organizational Linkages: Understanding the Productivity Paradox* (pp. 105-130). Washington, D.C.: National Academy Press.
- Smith, L., Folkard, S., Tucker, P., & Macdonald, I. (1998). Work Shift Duration: A Review Comparing Eight Hour and 12 Hour Shift Systems. *Occup Environ Med (Vol. 55)*, 217-229.
- Wilson, J., & Rose, K. (1978). *The Twelve Hour Shift in the Petroleum and Chemical Industries of the Uited States and Canada: a study of current experience.*(Industrial Research Reports No. 26). Philadelphia: Industrial Research Unit, The Wharton School, University of Pennsylvania.