

SEARCH CRITERIA

Model	Model C: Technological Development Model
Industry	Dairy
Focus/Level	Industry
Purpose	Testing available knowledge, creating new knowledge
Outcomes	Development of a management practice
Special Interest Groups	Other
Design and Implementation	Designed by researchers/experts managed by farmers/community

1. PROJECT TITLE:

Vasse Milk Farmllets

2. FUNDERS:

Department of Agriculture, Western Australia (primary funder): approximately \$600,000 budget (2002-02).

Dairy Research and Development Corporation: DRDC have initiated and partially funded five farmllet projects across Australia.

Western Dairy: Funds are allocated to Western Dairy by DRDC under the regional development project. Western Dairy provide financial support for the Farmllets project research, development and extension activities with producer input guiding Western Dairy's contributions and interest in the project.

3. PROVIDERS:

The Department of Agriculture operates the Vasse Milk Farmllets (VMF) from its Vasse Research Station. Two external consultants are used by the Department of Agriculture to provide both nutritional advice with regard to the dairy cows and to maintain good working links with the private consultant sector. A steering committee comprised of five dairy producers from dryland farming areas guides the project.

4. KEY CONTACTS:

Martin Staines, Project Manager, mstaines@agric.wa.gov.au

John Lucey, Extension Officer, jlucey@agric.wa.gov.au

5. INDUSTRY/ISSUE/GEOGRAPHY

The Vasse Milk Farmllets are small enterprises of 20 cows each that investigate different farm and herd management practices comparing the outcomes with those from each of the other farmllets. The results are used by the dairy industry to determine productivity, profitability and sustainability options for dairy farms in Western Australia. Each of the farmllets combines varying stocking rates and supplementary feeding levels to explore profitable farming systems leading to a positive future for the WA dairy industry. The farmllets aim to reduce the risk dairy farmers would ordinarily manage when introducing adjustments or substantial change to their farming system.

The farmllets have been established on dry land (non-irrigated) in the South West. The set-up of six farmllets provides comparable examples for dairy farmers of varying

stocking and input rates. The farmlets range from low input/low stocking rate to high input/high stocking rate, enabling farmers to compare practices with results (based on comparable environment and climate impacts). This provides the opportunity for farmers willing to take risks to see the benefit of doing so through a systems farming approach.

6. PROJECT CONTEXT

The Vasse Milk Farmlets (VMF) project was initiated by a steering committee of producers and industry service providers in efforts to view investigate a more farming systems approach to research for the industry. This occurred at a time of economic and political change (dairy deregulation) when profit margins in the industry were threatened by imposed change, and as farmers became more aware of the need to be more efficient and effective producers in order to survive.

7. PROJECT NICHE

Piecemeal industry development and research activities were occurring throughout the dairy areas prior to the establishment of the VMF project, however there was a felt need to merge activities to exemplify how research initiatives could fit and work together. The industry had reached a stage where there were reducing opportunities for small, component-based research adoption without clear recognition of methods for integrating research into existing (and potential) dairy farming systems.

Underlying the project has been an overall trend towards demonstrable increases in improved pasture utilization and efficiencies.

8. PHILOSOPHY/APPROACH

The overall approach taken has been to demonstrate a systems approach to dairy farm improvement, linked to an industry-initiated and supported research, development and extension programs. More recently, concerted efforts towards ensuring the extension of research findings into the farming community have become a major focus of the project, moving away from the traditional approach of “trying to solve [extension] problems with more science.”

9. RESOURCES, MANAGEMENT AND STAFFING STRUCTURES

Two full-time Department of Agriculture staff – a project manager and an extension officer – are devoted to the farmlets project, in addition to three part-time milking staff and two full-time dairy technicians. A budget of approximately \$620,000 is allocated to the project, which includes research funds and staff time for fertilizer trials taking place on off the farmlets as part of the systems approach adopted and two newly established Companion Farms. In addition, milk sales are revenue neutral. Two consultants are also contracted to assist with animal nutrition issues, as needed.

10. PROCESS/METHODS USED

The Vasse Milk Farmlets consist of six farmlets of 20 cows each. A “spare” herd is also kept. Each herd is milked separately with milk volumes recorded daily. The parity age of each herd is kept roughly equal to assist in monitoring the actual impacts of the grazing and feeding trials without influence of other factors such as cow maturity. The validity of the information when only 20 cows are milked has been questioned, however the project managers seek to extrapolate all data to a 300 head herd when translating the results to dairy farmers.

Pasture on each farmlet is subject to intensive monitoring. Stocking rates vary from 1.2 to 2.4 cows per hectare, with concentrated feed volumes from 900 to 2700 kilograms per cow per year. Other farm management processes, including fertilizer

and calving patterns, are standardized in order that real impacts of the differing management regimes can be identified.

Extension activities implemented include monthly farm walks, and “open invitations” to farmers to visit the farmlets on a weekly basis. Regular contributions to local rural publications, particularly those with a dairy focus, are an essential component of the extension program. Radio interviews on rural programs are also integral. An annual Open day has proved very popular with the broader dairy industry.

The extension of the findings is currently being taken to a higher level with the development of “companion farms.” Companion farms have the primary aim of demonstrating improved management decisions on a commercial dairy farm, based on the premise that it is the management of the system rather than the system per se that drives profitability. The secondary aim is to “demonstrate how the information generated by the project, including options for more intensive management, can be adopted on commercial dairy farms in WA to enhance profitability.” (Department of Agriculture, 2002). The VMF project managers sought expressions of interest from existing dairy farmers wishing to adopt the processes and methods advocated by the farmlets research, but at the scale of the existing farm enterprise. To date, two farming businesses have commenced as companion farms, with the intention that another three are added to the program this year.

11. IMPACTS TO DATE:

A survey of dairy producers in Western Australia was undertaken by AgInsight in October 2002, to understand the views of dairy farmers in relation to their view of the farmlets project as an information source. Producers were also asked what information they felt they needed from the VMF project. The following box is taken from the AgInsight report, summarizing the study findings:

Box 1: Vasse Milk Farmlets Evaluation Summary:

Producers indicated they are currently concerned as to their long-term viability both for the future of their farm and the industry generally, citing profitability and costs of production as their main concern. Hence, attitudes to risk and change for the majority are likely to be more conservative. There will be a smaller proportion of people who see this time as an opportunity for change and will take risks accordingly.

The results highlighted the importance of people who provided one-to-one and typically expertise style information such as vets. Industry newspapers were also valued. The VMF is well known with only one respondent unaware of the initiative and its intention. Most see that the main purpose of the VMF is to undertake research and development in pasture management, feeding regimes, stocking rate and fodder conservation. They use the VMF to validate their own performance and for general information on pasture and feeding programmes, however the VMF does not appear to be well utilised in many aspects of the business where specific information and change is required.

Recommendations for the VMF to consider are:

- 1. That it continues to use the industry press to inform milk producers of VMF results;*
- 2. That on an annual basis, the VMF reviews what its 'key message(s)' might be, and publicise this message(s) using various channels and sources;*
- 1. The VMF improves, where necessary, its links with other providers, particularly vets;*

3. *Technologies such as decision aids are developed so producers can apply the VMF information using their own data and experiences. These opportunities could be developed into a series of workshops or other hands on type activities;*
4. *Milk producers are most concerned about their profitability and costs of production. Where possible, information should be presented with associated costs and benefits. Ideally, this data could be further developed using the data from larger scale examples;*
2. *There is scope for the re-introduction of the discussion groups, whereby results from the VMF may be presented for discussion among local farmers, using local experience and knowledge; and*
3. *That the VMF regularly involves a range of farming groups and individuals in trial design and in the interpretation of results.*

Source: AgInsight, 2002, pp2-3.

The findings obtained by AgInsight through the producer survey have largely been incorporated into ongoing planning and implementation of extension activities through the VMF project. The findings indicated that research generated by the farmlets project is getting to the dairy producers, with varying degrees of uptake. Project officers believe that farmer perceptions of the project are improving, particularly with co-operative support and interest currently arising from milk production companies in Western Australia. Constant efforts to improve and monitor the effectiveness of the extension of research from the farmlets are being made.

The use of the companion farms project, and the development of local producer groups based (loosely) geographically around the companion farms is seen to be a positive step in the extension process. The Department of Agriculture works with the groups while encouraging them to be self-learning. Results are then documented and shared through the existing mechanisms for wider industry information. This process provides learnings for both the farmers involved, and the extension officers facilitating the information exchange.

12. EFFECTIVENESS:

Moderate to High

The effectiveness of the Vasse Milk Farmlets' extension program is rated fairly highly in the dryland dairy farming areas, although there is recognized room for improvement. The current focus on extension of results is a positive step.

Efforts are currently under way to develop mechanisms for supporting irrigation dairy farmers, who have indicated they feel somewhat precluded from the project due to the different farming system in place and a perceived irrelevance of dryland dairy farming information. The geographic distance between the irrigation area and the Vasse Research Station is also recognized as a limiting factor in irrigation dairy farmers' involvement in the research and resultant implementation of its findings. This is being addressed by a planned VMF roadshow

13. PROJECT DOCUMENTATION AVAILABLE:

AgInsight, 2002, The Vasse Milk Farmlets as an information source. Results of a telephone survey of dairy producers in Western Australia. October 2002.

Department of Agriculture, 2002, DAW041 Milestone Report 7 Vasse Milk Farmlets. Productivity, profitability and sustainability of intensive Western Australian dairy farming systems (Phase 2).

Weatherley, J., 2003, Preliminary Report on PhD research trip to Vasse Farmlets. Available from John Lucey, Department of Agriculture.

14. ISSUES:

The research component of the Vasse Milk Farmlets concludes next financial year. Feedback obtained to date indicates that dairy producers would like to see the farming systems approach of the Vasse project maintained, with interest expressed in larger farmlets – for example, three larger farmlets with 40 cows as opposed to the current six farmlets with 20 cows.

There is also the potential for improved overall industry approaches to the development of useable and useful research at the farmlets, arising from interest shown by current milk processors.

15. COMMENTS/CONCLUSIONS:

The passion shown by the extension officer working with the Vasse Milk Farmlets project, Mr John Lucey, is noted as being a very positive factor in the success of extension activities. The interest taken by individuals in their work is recognized here as being a key element in the marketing of research programs and products to the farming community.

16. REVIEW METHODS:

Telephone interview with Mr John Lucey. Reading relevant material.