

# **NEW FARMLLET STUDY TO FIND PROFITABLE FORAGE SYSTEMS**



**A dairy study should give Hills & Fleurieu farmers a better insight into how progressive dairy farmers grow and use home-grown forage in south-west Victoria. The study also trials a new approach to combining complementary forages on dryland farms.**

A two-farmlet ('mini-farm') comparison is underway at the DemoDAIRY farm in southwest Victoria, run as a part of Project 3030. Farmers, researchers and service providers are working together in this project to profitably increase home-grown forage usage on dryland dairy farms.

One of the farmlets is managed to maximise production from a ryegrass-only pasture base. This farmlet involves growing only perennial ryegrass pastures, stocked at 2.25 cows/ha. Pastures are rotationally grazed, with rotations during the year adjusted according to growth rates. Pastures are fertilised in autumn with Super Potash fertiliser 300 to 400 kg/ha depending on soil test results. Nitrogen inputs totalled 124 kg N/ha in the first year. Grain, plus small amounts of hay, are bought in to maintain cow intakes to produce 500 kg milk solids/cow (around 1125 kg MS/ha).

Pasture consumption on this farmlet averaged 7.3 t DM/ha in the first year. In part, consumption was held back by the very late opening rains in that year. In the future, farmers and researchers are aiming for up to 9 t DM/ha pasture consumption from this system.

The other farmlet involves growing a combination of complementary forages, aiming for up to 12.5 t DM/ha home-grown forage consumption each year. Preliminary research suggests that this level of forage consumption could support a 15% return on assets if applied successfully on commercial farms. However, there is a higher potential risk in this system, which this study will investigate.

The forage combination involves perennial ryegrass, tall fescue, annual ryegrass and double cropping (winter cereal crop followed by a summer brassica crop) on different parts of the farmlet. The farmlet is stocked at 2.9 cows/ha, and nitrogen inputs totalled 173 kg/ha in the first year. Milk production targets are 537 kg MS/cow or 1550 kg MS/ha.

Cows on the complementary forages farmlet consumed 10.9 t DM/ha of home-grown feed in the first year. This consumption was below target due to;

- the very late opening rains in the first year,
- autumn sowings of tall fescue pastures failed for the same reason,
- summer forage crop seeding was delayed until the end of the spring growing season.
- high losses of cereal silage, both in storage and at feed out.

It will be interesting to see if participating farmers and researchers can address all of these issues to improve consumption rates in future years.

The attached table summarises farmlet performance in the first year. Project 3030 and DairySA aim to keep SA farmers fully informed of developments in this study.

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	<b>Ryegrass base farmlet</b>	<b>Complementary forages farmlet</b>
<b><u>Farm details</u></b>		
Perennial ryegrass pasture (% of total farm area)	100	58
Tall fescue pasture (% of total farm area)	0	17
Double crop (% of total farm area)	0	15
Summer Brassica crop (% of total farm area)	0	10
Stocking rate (cows/ha)	2.25	2.90
<b><u>Forage Consumption (t DM/ha over whole farm area)</u></b>		
Total pasture consumed	7.3	8.3
Total summer crop consumed	0	1.1
Total cereal silage consumed	0	1.4
Total Home Grown Feed Consumed (t DM/ha)	7.3	10.8
<b><u>Milk Production</u></b>		
Milk yield (L/cow)	6868	6964
Milk solids (kg/cow)	520	530
Milk solids (kg/ha)	1170	1526