



Take another look at ryegrass management

Dairy is back operating in a low milk price environment requiring low cost production options. "For dairy farmers in temperate regions, it is an ideal time to revisit ryegrass management and look for opportunities to get more from their existing ryegrass pasture", says Greg O'Brien, extension leader with Project 3030. "Fortunately, there is still potential to get more from ryegrass. For the majority of south eastern Australian rainfed farms, it is still likely to be the easiest and most efficient way to improve the bottom line".

Over the last three years, dairy research Project 3030 recorded between 7.5 and 20% return on assets from a perennial ryegrass-based dairy farmlet operating at DemoDairy, Terang, SW Victoria. Profit is obviously affected by milk price and feed price. But even at \$4/kg milk solids, the 3030 ryegrass system still returned 4% on assets during the drought year in 2006/07. In 2007/08, the return was 6% using the same milk price and the actual feed prices paid. A 10% return was achieved where grain was costed at \$225 per tonne, pasture hay at \$150 and lucerne hay at \$200.

"The ryegrass-based production system can stand up to seasonal and price shocks very well," says David Chapman, project leader for 3030. "The good news for farmers is that pasture management used on the 3030 ryegrass farmlet can readily be applied on commercial farms".

A key principle behind making more money from perennial ryegrass pasture is to convert extra growth into milk at lower cost than the feed it replaces (eg concentrates or purchased fodder). This is not to say supplements weren't important in achieving the result in the 3030 farmlet: around 1.4 tonne of concentrate and 0.6 tonne of home-grown silage was fed per cow along with some purchased hay.

"Profit doesn't automatically come from growing ryegrass pastures, says David Chapman. "Timely decision making and the right management plan is required".

A series of four articles will track the seasonal ryegrass farmlet management throughout this year, starting with autumn management.



Autumn

Late summer and early autumn is the time when pastures are at their weakest due to heat and moisture stress. Summer will have weakened individual plants and some will have succumbed, despite good management. Grazing pastures too short (< 5 cm) or too soon (< 2 leaves) during late spring - summer results in greatly reduced root density and depth leading to more plant pulling the following autumn.

Autumn is about re-building ryegrass density and setting up pasture production potential for the year. It is important to refrain from eating pasture as soon as it grows to reduce autumn supplement use. This approach will restrict pasture growth for several rotations and possibly till the spring flush. Ultimately more supplements will be needed over the year and the cost of milk production increases. Feeding supplements when pasture is in short supply helps set up pastures for the season ahead (take a longer term view).

Maximising ryegrass pasture performance in autumn:

- 1. High density pastures produce more feed.* Walk your paddocks before the autumn break and identify pastures that do not have adequate plant density. Restore the density by either direct drilling perennial ryegrass or a carry out a full renovation (spray, cultivate and re-sow). Full renovation gives a more reliable result but could result in these paddocks being off-limits during winter if it is wet, so should be restricted to a limited portion of the farm to manage risk.
- 2. Ensure the existing plants are able to perform at their best.* Begin autumn with a long rotation (say 60 days initially). Two factors are involved – pasture cover and grazing intensity. Pasture growth rate is dependant on the amount of green leaf area turning sunlight into plant growth, so building up pasture mass will provide higher growth and more feed in the long run. Plants weakened by summer growing conditions will be further weakened by repeated hard grazing and will grow less feed in the long run. Project 3030 target was 2,500 kg DM/ha (2 – 3 green leaf stage) cover at grazing (obviously this is not possible for all pastures). Once the target pasture cover is achieved, the rotation is altered as required to maintain this mass on the next pasture to be grazed.



3. *Consider a sacrifice paddock or two.* While pastures in a sacrifice paddock will be further weakened, those not grazed will be further strengthened. So the majority of the pastures will grow faster compared to paddocks that are grazed before the ideal cover is achieved. To limit any downside from using a sacrifice paddock, choose ones that are relatively unproductive and/or due for renovation.

4. *Use supplements to optimise re-growth.* The importance of pasture residue is often over-looked. A residue after grazing of 5-6 cm between the clumps will give highest ryegrass performance. If cows graze shorter than 5 cm, increase the level of supplement feeding. Decrease supplements if leaving more than 5 cm.

5. *Control broadleafed weeds.* Competition from other species will limit the performance of ryegrass pasture. Strategic control of broadleafed weeds can be easily achieved through spray-grazing at about 6 weeks after germination.

Project 3030 seeks to increase the return on assets in dryland dairying regions by 30%, through a 30% increase in the consumption of home-grown forage.

The project is supported by dairy farmer R&D levies through Dairy Australia, DemoDAIRY, WestVic Dairy, GippsDairy, Murray Dairy, and Dairy SA, along with the Gardiner Foundation, the Department of Primary Industries Victoria and the University of Melbourne.

For further information contact Greg O'Brien DPI Ellinbank ph 03 56242288 or David Chapman UM Parkville ph 03 83447587