

Pastures for Profit[®] Tips Winter 2009



Welcome to the winter '09 version of Agricom's Pastures for Profit Tips[®].
As always, we hope you enjoy our latest edition.

Eight-Hour Grazing

Restricting dairy cows to just eight hours of grazing per day could decrease the impact of dairying on the environment by allowing urine to be spread more evenly on pasture, but it reduces milk production.

A trial by DairyNZ scientist Dr. Kirsty McLeod compared cows that only grazed pastures for an eight hour period each day (the rest of the time was spent on a pad or at milking), with standard grazing. Cows produced up to 14% less milk because they could not eat as much pasture in the restricted time.

Urinations on pasture were however reduced by 41%, allowing more urine to be stored in effluent ponds and then applied evenly over pastures (e.g. through a centre-pivot). This could reduce nitrogen losses from the soil and improve pasture production.



A system of two periods of four hours grazing per day was also tested, but this still reduced milk production by up to 10% and also increased labour.

Milk production from eight-hour grazing could be boosted by cutting and carrying feed to the cows while they are on the feed pads, but with increased costs. There may also be potential to maintain production by using chicory or plantain, because the rate of intake of these are 2.4 times faster than ryegrass, and therefore may allow cows to achieve their daily intake requirements within eight hours.

Time of the Day is Important

The performance of animals could be improved by concentrating animal intake at dusk.

The nutritive value of pasture improves during the day because pasture loses moisture and accumulates sugars, which dilute fibre and protein concentrations.

Farmers could capitalise on this if they were restricting pasture grazing time (e.g. eight-hour grazing, see article above in this newsletter). Cows could be on feed pads until afternoon milking, then moved onto their pasture for eight hours (although this requires moving animals to feed pads around midnight!). The nutritive value of the diet of the cows would therefore be improved when compared with grazing during the morning.

These findings might also explain why some farmers observe milk production or pasture utilisation differences between paddocks even though the pastures are very similar.



P. Gregorini. *4 hours could be enough. Proceedings of the New Zealand Large Herds Conference 2009. p58-59. 2009.*

info@agricom.co.nz www.agricom.co.nz 0800 183 358

This publication has been prepared in good faith by Agricom technical staff using sources that are believed to be reliable. However, Agricom does not give any warranty that all information contained is accurate or that all advice given in this publication will be appropriate for all circumstances. To the extent permitted by law, Agricom shall not be liable to anyone in respect of any damages suffered as a result of their reliance on this publication. © Agricom, 2009

Pastures for Profit[®] Tips Winter 2009



Ryegrass with AR37 Endophyte Repels Porina

Although Samson is not a new perennial ryegrass cultivar, it has been a popular choice on many sheep and beef operations in the south because it has proven to reliably meet or exceed expectations for growth and persistence. This has meant it has formed the backbone of thousands of hectares of pastures in the south.

The introduction of AR37 endophyte to Samson should only increase its production and persistence. South Otago farmer Peter McNab sowed Samson AR37 in 2006 due to AR37 providing resistance to porina*, and compared this with Samson nil endophyte in the same paddock. "Indications so far are that, while you do lose some of the grass, most of it seems to survive," says Peter. "The AR37 pasture seems significantly more resistant to attack. The other day we dug three holes in the AR37 paddock and found one porina caterpillar, and in a next-door paddock of AR1 endophyte ryegrass we found twelve in three holes."



Porina caterpillar

Finding small numbers of porina in AR37 pastures is to be expected. Moths lay eggs on whatever pastures they fly over, small caterpillars can develop from these and survive by eating clover, weeds and non-AR37 ryegrass plants in the pasture. The caterpillars however prefer not to feed on the ryegrass plants with AR37, and therefore autumn and winter pasture production of AR37 ryegrass is less affected.

There have been a large number of plantings of AR37 ryegrass in the south in the last year, especially in areas that are a bit drier in summer than others, and where farmers know that porina is likely to affect their pastures in the future.

Harness Jewels – Ashburton Racetrack

Agricom's leading grasses and the best harness racing event of 2009 came together at Ashburton in the Harness Jewels event on Queen's Birthday Weekend.

In November 2008 the Ashburton Trotting Club planted the centre of their race track with Agricom grasses, to maximise forage production and income from the land. It was planted in a mixture of Samson AR37 perennial ryegrass and Sensation red clover, and silage will be harvested and sold. AR37 was an important technology to use because irrigation and silage production creates a haven for porina caterpillars, often devastating pastures. The AR37 endophyte provides the plant with resistance to porina*, as well as black beetle, Argentine stem weevil, root aphid and pasture mealy bug.

Strips were planted in the middle to demonstrate some key ryegrasses, including Commando AR37, Ohau, ONE50 and Crusader. These strips are surrounded with Charlton timothy and Sensation red clover, which can produce extremely high quality silage and hay.



info@agricom.co.nz www.agricom.co.nz 0800 183 358

This publication has been prepared in good faith by Agricom technical staff using sources that are believed to be reliable. However, Agricom does not give any warranty that all information contained is accurate or that all advice given in this publication will be appropriate for all circumstances. To the extent permitted by law, Agricom shall not be liable to anyone in respect of any damages suffered as a result of their reliance on this publication. © Agricom, 2009

Pastures for Profit[®] Tips Winter 2009



Use of fertiliser at sowing time

For the third year running the east coast is facing dry weather, with areas from Gisborne to Hawke's Bay declared drought zones recently. Checking new pasture sowings in these dry conditions has highlighted the effect fertiliser can have in speeding up establishment and reducing the time to first grazing.

On one farm, a series of paddocks were cultivated and sown in new pasture following barley crops. The paddocks were drilled with a Coulter drill, and 150 kg of DAP fertiliser sown with the seed. In one area of the paddock, the fertiliser ran out, and the differences were dramatic

DAP contains the two most important nutrients for plant establishment-phosphate and nitrogen. Other nutrients may be required according to soil tests, however DAP remains a popular choice for a general purpose starter fertiliser.

Placing the fertiliser close to the seed using a coulter drill is the most effective application method because the fertiliser is concentrated close to the seedling which is where it is needed most. In situations where drills are used without fertiliser boxes e.g. roller drills, the next best method is to broadcast fertiliser prior to the final working of the paddock, but rates will need to be increased as it is less efficient.

Acknowledgements: Michael Benson and Graeme Anderson



Pastures for Profit® Tips Winter 2009

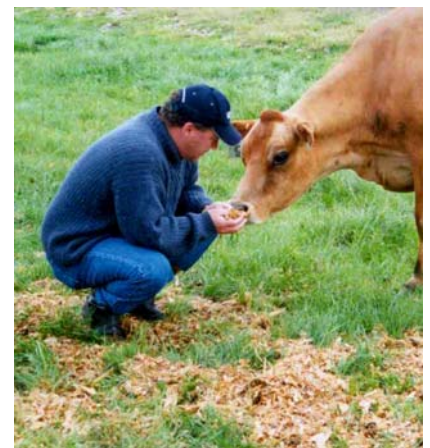


Is Feeding Cows Economic?

This winter, some farmers will be hit with floods, snow, or sodden ground, making it impossible to feed animals fully on pasture alone.

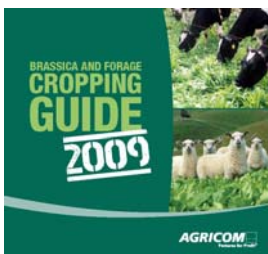
In these situations, most dairy farmers feed out extra supplementary feed until pastures can be grazed again. With lower milk prices than 2007/8 and feed costs still high, some will be wondering if that practice is still profitable.

Research by DairyNZ scientist Dr. Jane Kay, has provided some benchmarks for farmers. She found that (at time of trial) at a \$5.50 milksolids price, offering 5 kg DM of a medium quality supplement (ME=11 MJ/kg DM) to cows eating only 8 kg pasture DM/day for two weeks would increase milksolids production and improve reproduction to the tune of \$50/cow. If the fed-out cost of the feed was 25 c/kg DM, the profit would be \$32 per cow. The restriction period was 10-24th October. The figures allow for a 40% pasture/feed substitution rate, and include benefits to reproductive performance.



J. Kay. *The real cost of a feed deficit. Proceedings of the New Zealand Large Herds Conference 2009. p50-51. 2009.*

The team at Agricom would like to congratulate the winners of the BBQ sets in our recent promotion at South Island Agricultural Fieldays at Lincoln, congratulations to Margaret Thomas from Fairlie and Jerry Bowles from Amberley.



Coming soon! – The new Agricom Brassica and Cropping Book 2009, available on our website (www.agricom.co.nz) mid July – delivered through Straight Furrow in August. To make sure you receive your copy from us, contact Annette to check your details are correct – ahynes@agricom.co.nz

We hope you have enjoyed this Pastures for Profit® Tips newsletter and wish you all the best for the season ahead. If you would like further information on any of these articles please do not hesitate to contact us.

info@agricom.co.nz www.agricom.co.nz 0800 183 358

This publication has been prepared in good faith by Agricom technical staff using sources that are believed to be reliable. However, Agricom does not give any warranty that all information contained is accurate or that all advice given in this publication will be appropriate for all circumstances. To the extent permitted by law, Agricom shall not be liable to anyone in respect of any damages suffered as a result of their reliance on this publication. © Agricom, 2009