

GRAZING PASTURE MANAGEMENT

WHAT'S HAPPENING IN NEW ZEALAND DAIRYING

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New Zealand dairying.

Since 1985 New Zealand dairy farmers have been paid on the basis of three factors — milkfat, protein, and volume. Volume is discounted because it contributes importantly to transport and manufacturing costs, and protein has increasingly earned more as consumer demand for milkfat (the traditional basis for pricing) has declined. Thus in 1985 the New Zealand Dairy Board (NZDB) payment was in the ratio of 1.64 for fat to 1 for protein. For the 1991-92 season the ratio is 0.60 for fat to 1 for protein and dairymen are being advised that this is likely to decline to 0.1 to 1 over the next 10 years.

New Zealand dairymen and the NZDB are very interested in methods to increase the total solids content of the milk and especially

protein. Most of these improvements are expected to be slowly realized through breeding rather than through nutrition, which offers restricted opportunities because of the use of a pasture-only diet for lactating cows.

The emphasis on solids has renewed interest in the Jersey breed, who lost favor during the 1970s to mid-1980s because Friesian cows provided higher returns for calves (for dairy beef) and cull cows (through heavier carcass weights). Results for the first season of a farm system trial comparing Jerseys and Holstein-Friesians at two stocking rates at Ruakura (near Hamilton in the North Island) showed that Jersey cows made more income per acre (see Table). The farmlets were managed so as to have the same amount of pasture at the end of the milking season.

In comparison to Pennsylvania the results indicate — a shorter average lactation (corresponding

to seasonal dairying), lower milk yields per cow, but high percentages of solids and more emphasis on income per acre than per cow. Also those of you who have read the past articles on stocking rate will be interested to see the effect of more cows per acre and of the different liveweight of the two breeds.

Cow liveweights are a topic of discussion at present. A researcher has suggested that New Zealand dairymen should be considering smaller cows for pasture production efficiency. Increasing a cow's liveweight from 882 pounds to 992 pounds (small by US standards in either case), requires an additional 375 pounds pasture DM per year for maintainance energy. For a 155 cow herd (about the New Zealand average), this 110-pounds increase in individual cow liveweight equates to an extra 17089 pounds of herd liveweight which is equivalent

to the weight of 19 cows and the consumption of an extra 58,433 pounds of pasture DM per year! If this pasture DM was used to produce milk, rather than maintain liveweight, it would generate an extra 33 pounds milkfat/cow with a value of \$33.66 (or \$5,217 for the 155 cow herd). Extra cows, rather than liveweight, would earn additional income through calf and cull cow sales. The figures are challenging, and raise questions about the need for 1300-1600 pounds cows in Pennsylvania, especially where cows are on a pasture diet.

Dairyfarmers are showing a lot of interest in "focus" farms. This is a relatively new extension program, involving Dairy Companies and New Zealand Dairy Board Consulting Officers. The "focus" farms are located in different districts and are closely monitored (e.g. pasture production, cow condition scores, herd replacement liveweight gains, milk production) to identify where management could be improved or new technology could be adopted to increase profit. The farms are operated by commercial farmers and are managed under the same constraints as the 'real' world (rather than a research environment). The measurement of farm performance has highlighted some interesting factors — low performing farms don't necessarily produce a lot less pasture and often can make significant

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	Jersey	Jersey	Hols-Fr.	Ho-Fr.
Cows per acre	1.4	1.8	1.2	1.6
Cow liveweight (lb) ¹	867	849	1091	1039
Days in milk	263	225	265	228
Milk (lb/cow)	7288	5784	10264	7409
Milkfat (lb/cow)	441	346	472	331
Protein (lb/cow)	304	229	359	247
Solids (lb/acre)	2664	2606	2511	2298
MILK INCOME (\$/acre) ²	1574	1588	1444	1350

¹ End of lactation.
² Based on \$US1.02/lb milkfat.

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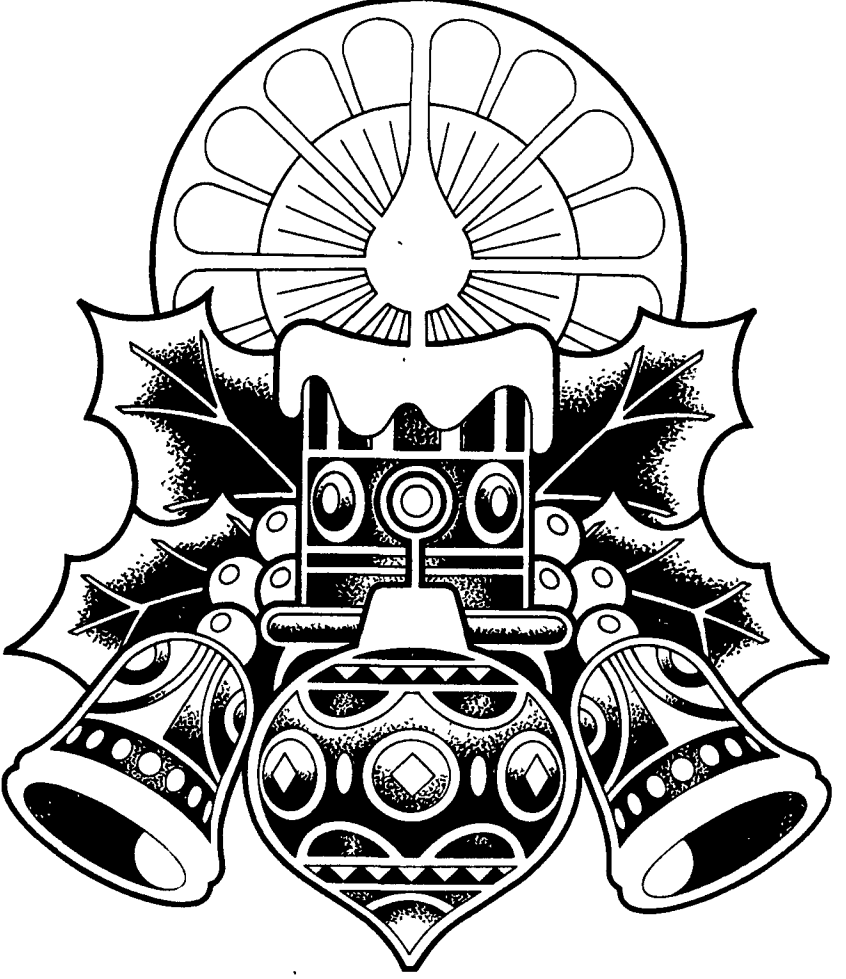
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To old friends and new go our wishes for a season of love and faith. A warm, wonderful thanks to all!

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May the meaning and the message of the first Noel rekindle your faith in His love. Merry tidings.



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