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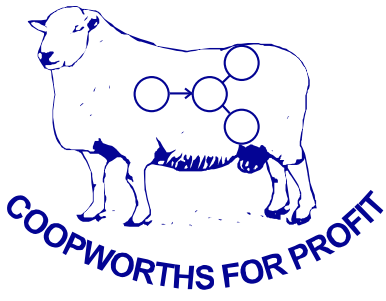
Ceres Farm

MEMBER N.Z. OVINE REFERENCE SCHEME
FACIAL ECZEMA TOLERANCE TESTING SINCE 1984



Newsletter 28, September 2004

Unless you were living in the areas which were devastated by floods, we had a pretty good year again. There was not much of a summer but generally it was a good year for grass growth (current feed shortage not withstanding) and it was too cold for the fungi causing toxins to be much of a threat. It was unusually wet everywhere I think. The exchange rate kept within reasonable bounds so prices for our products were quite good really throughout this year. May it remain so!

Some general observations on DNA performance testing

Breeding objectives vary widely but are typically multi-trait and should include all the characteristics of economic importance affecting both returns and costs.
Traits affecting costs such as Facial Eczema, foot rot and parasite resistance are increasingly included in breeding objectives, in response to widespread failures of chemical based control systems. The aim is to increase the frequency of "good" genes in ram breeders flocks.
Developments in DNA technology will mean that sheep breeding programs in the future will be based on integrated genetic technologies.

Developments in DNA technology have led to the discovery and mapping of large numbers of genes distributed across the genome of livestock species.
Many of these genes have no known biological functions (yet) but may be used in DNA pedigreeing and may serve as signposts for discovering loci (the specific site of a particular gene on its chromosome) which effects traits of economic importance. These loci have become known as **Quantitative Trait Loci** or QTL.
DNA pedigreeing is a process whereby samples of DNA from offspring are analysed to assign parentage. The availability of pedigree and performance information enables more accurate estimation of breeding values and faster rates of gain.
Genetic linkage studies to discover individual genes with significant economic traits are in progress. These studies will identify chromosomal regions which contain one or more QTL.
It will be rare for markers (probes used to identify genes) to directly identify a QTL but the markers can be utilised in Marker Assisted Selection (MAS) and will become the basis for Genotype Assisted Selection (GAS) breeding programs.

MAS should lead to an increase in rates of genetic gain greater than that achievable from breeding using pedigree performance records.
In sheep breeding programs the widespread use of MAS/GAS must await further searches for QTL. Unfortunately, not a lot of this is being done in New Zealand. Currently, none of our agricultural universities have geneticists working on this type of research.
Any new potentially useful QTL must be studied closely for evidence of unexpected and undesirable effects on other traits, both alone and with other QTL.
New and improved software tools for assisting breeders to accurately estimate the relative economic emphasis placed on traits are becoming available for a range of production systems.

Breeding technologies are undergoing rapid developments in DNA knowledge, genome sequencing, increasing computer power, new software and better information technology.
Together they create the potential to substantially lift rates of productivity in domestic lifestock
The very high cost of obtaining this information needs to be weighed against the benefits.
Why am I telling you all this?..... Because of the fantastic futuristic claims some corporate ram breeders are making!
Informed sources tell me that to do an accurate DNA pedigree and performance test ten DNA tests need to be taken. To reduce cost only six are done. This then makes the SIL performance forecast from DNA less accurate than the pedigree performance recording that most ram breeders on SIL use. Some of the claims by the large ram breeding companies are thus misleading to put it mildly.
The gene(s) that causes or prevents FE for instance has still yet to be discovered. So you can not have a DNA test for it!

Coopworth Annual Conference

The Coopworth conference was based in Hammer Springs this year. On a farm visit near Hawera, I was pleasantly surprised when the owner told the gathering that according to a recent meat scan the MNCC 07/00's progeny had produced better results than the South Suffolk terminal sires he had also used.

The annual printout of top rams and ewes from the Coopworth Society saw, like last year, that MNCC animals are well represented. Since almost all flocks are now genetically linked one way or the other, the across flock analyses gives a good indication on where our flocks are. MNCC has got very good individual rankings in all recorded traits - combining these into a single animal remains the challenge. My top ram has an index of 1200, but would have an index of 2500 if ranked one in all traits. There is still a long way to go.

Facial Eczema test

For the first time ever all (14) of the rams screened passed with a clear FE test. I had expected this 100% pass rate sooner or later, but I did not think it would happen so soon. The FE test will remain at 0.6 mg of sporidesmin per kg bodyweight for the next few years. Ramguard (the FE testing agency) will advise its clients to have 0.6 mg/kg as the ceiling dose rate since it represents the worse natural sporidesmin exposure possible.

NZ Ovine Reference Scheme

Ashgrove 616/01 came out on top this year. Because this ram is also FE tolerance tested it has replaced MNCC 07/00. Unfortunately, 616 did not want to give up his semen to an artificial ewe and only very little sperm was obtained. The same ram did not show any inhibitions on his journey back home to Northland and managed to mark 30 ewes overnight at my place.

Rams

This year again I choose rams with the best growth and meat rankings as opposed to those with the highest fertility. The cut of point for culling was at index 650 so, because the price remains at a dollar per index point, the median price of rams will be about $750.
I am anticipating a slight increase in the demand for rams this year so please indicate what your ram needs are as early as possible so I can try to accommodate your requirements.

I wish you a very good farming year and hope to see you early in November.

Edward Dinger.

This newsletter and the 2th selection list will be shown on my website: www.ceresfarm.co.nz

If you want rams phone or fax 07 827 8784, send me an e-mail (aedinger@ihug.co.nz) or forward slip below.

Send to A.E. Dinger, c/- Ceres Farm Ltd., 128 Baker Road, R.D.4, Cambridge.

Name:

Address:

Telephone:

I need approx……. rams from MNCC

With: ☐ high, ☐ medium, ☐ lower ranking (tick).