

## SIR ARTHUR WARD AWARD 2000

### Dr A.J. (Jock) Allison

Very few people in New Zealand agriculture are aware of the contribution Dr Allison has made to our industry over the last 35 years. That is because all of the recognition due to him has been credited to some guy called Jock. It is a reflection of the man's style and personality that there will be many people in NZ who are unaware that the two are in fact one and the same person.

Jock first joined the Ministry of Agriculture and Fisheries on a MAF scholarship and subsequently completed his PhD at Sydney University in reproductive studies. This work gave him a lifelong interest in improving the, then low, reproductive rate of New Zealand sheep, and the tools to do it via importation of embryos and semen and their subsequent rapid multiplication via intensive use of embryo transfer and artificial insemination.

His initial work at the Animal Production Unit at Invermay had an immediate industry impact. This work on extending mating ratios in sheep, where the industry norm was then not far from the "time honoured" 1 ram to fifty ewes, was shown by Jock to be very conservative. With sound fertile and presumably "eager" rams, ratios of up to 1 to 250 ewes were shown to be possible without any (statistically significant) effect on conception rates. Some of us well remember Jock's discussions with a couple of farmers at an Invermay Field Day on the relevance of statistical analysis and what statistical significance meant. This work was influential in the industry with normal ram-to-ewe ratios on commercial farms increasing to the current norm of around to 1 ram being joined with 100 ewes, or slightly less overall when the contribution of tail-up terminal sire rams are included. The benefits of this change of course were that farmers could afford fewer but better rams and this in turn stimulated the ram breeding industry to provide these animals.

His first attempt to increase the reproductive rate of New Zealand sheep was the importation of the Booroola Merino. The subsequent discovery of a single Booroola gene for fecundity essentially put on hold its widespread industry adoption, because the magnitude of the gene's effect was too large for most New Zealand farms. However, this importation has had major impacts on our understanding of the control of fecundity in sheep and once its molecular basis is resolved, industry application of the knowledge obtained may not be far behind.

In his role as director of Invermay, where he was instrumental in the building of the present campus, and subsequently as a long-serving inaugural board member for AgResearch he constantly reinforced the message that research could not be divorced from its extension to the farming industry. To him, success was measured in both scientific publication AND industry adoption. Perhaps one of his more memorable quotes on this topic was given to a scientist who was reluctant to tangle with an ill-informed industry leader in the farming press "never forget the power of an inflammatory headline".

Jock's interests in application of science results in industry, saw him leave the, then, rather staid, MAF to be

involved first in the LambXL importation of exotic sheep breeds to New Zealand, which included Texels, Finns, Oxford Down, German White Headed Muttons and Gotland Pelts. By the time these were released, they had already had a major impact via the rapid introduction and use of genetic techniques to improve the carcass



composition in existing breeds, a direct response of the commercial threat posed by the Texel. Subsequently, the Texel breed has become widely used in New Zealand, both as a terminal sire and a component of dam breeds. More recently, the Finn has also had an increasing industry impact largely as a component in composite breeds or crosses.

This and subsequent importations also honed Jock's skills in negotiating with industry bureaucrats, particularly the titanium impregnated version called a MAF veterinarian.

Jock has approached all of these important roles with a determination to do well, a concern for the industry overall and for the people around him. But equally he has performed his duties with good humour. When approval was finally granted for the construction of the new campus at Invermay, who else would have seized the moment to gain approval for a lecture theatre conveniently described as 'Farmers Hall' as well. When funds in the appropriate category were exhausted, who else would have purchased an accessory for a hay baler that actually consisted of the tractor attached to the front?

But much as Jock's contribution to research has been notable, it is for his entrepreneurship in importing East Friesian sheep into New Zealand that he is best known for and it is for that that the nomination for the Sir Arthur Ward Award was primarily made. His enterprise has given us an opportunity to add a new dimension to sheep farming, an ovine milk industry.

Both nominators, one a scientist, one a farmer, have personal appreciation of Jock's work, because he has also provided traditional sheep farmers an opportunity to take a quantum leap forward. We have worked together to develop a stabilised composite sheep breed that has 25% East Friesian genes combined with 25% Texel and 50% Romney (known as TEFROMs) and we are confident that we are on the way to achieving the so-called super-sheep. The parameters generally prescribed for such a sheep in our part of the world are 100% lambing for hoggets and 180% lambing for the mixed age ewes. Add to that a 4-kg gain in weaning weight and over 90% in 'Y' grade at the top paying weights and you realise that we have special reasons to appreciate Jock's work and good reason to nominate him as a worthy recipient of this award.

*Robin Campbell and John McEwan*