

Science and the South African Merino Breeder



by G J Erasmus

Na 'n loopbaan van veertig jaar in die teeltverbetering van diere, veral Merinoskape, kan ek in alle eerlikheid en opregtheid met groot dankbaarheid saam met koning Dawid van ouds uitroep: "Die meetsnoere het vir my in lieflike plekke geval, ja, my erfenis is vir my mooi."

The scientific challenge to traditional Merino breeding started in the late 1950's led by drs Dun and Newton Turner from Australia. In South Africa it was initiated by Prof. FX Laubscher and his students of whom I was fortunate to be one. Others include Almero de Lange, Ronnie van der Merwe and Daan Poggenpoel. At first the going was very tough for the young scientists confronting very successful and respected stud breeders. Worst of all was the skepticism and criticism of so-called sheep-and-wool experts and even fellow animal scientists. When for instance, about thirty years ago I reported to my superiors and colleagues that we ranked sheep according to an economic selection index, I was told that animal breeding could not be reduced to a single figure! At one stage, in a letter to the agricultural press, I was even advised to stay at home and not waste taxpayers' money with my so-called technology transfer. Fortunately the barriers gradually broke down and today the S.A. Merino is undoubtedly the leader in applying scientific principles to breed improvement.

I was recently invited to attend a council meeting of Merino S.A.[®]. I was pleasantly surprised at the level of discussions. I could vividly remember that when I served on council as the first government representative, we could spend a whole morning debating whether the Western Cape championships should be held at Caledon or Bredasdorp!

During my career I had been blessed with many prestigious awards, including National Agricultural Scientist of the Year and the gold medal of the S A Society of Animal Sciences. The one I shall, however, cherish with the most pride is honorary membership of Merino S.A.[®]. I am extremely grateful that the wheel has turned the full circle. I can truly say "*The lines are fallen unto me in pleasant places; yea, I have a goodly heritage*".

Why is Merino S.A.[®] today the leader in the application of scientific principles to genetic improvement? One reason I would like to stress is the fact that leading Merino breeders are not satisfied with measurement or performance testing alone. Performance testing on its own is rather useless and the saying "*man must measure*" rather nonsensical. The problem is that animals can only be genetically compared within a "contemporary group" where all the non-genetic factors are identical for all animals. These contemporary groups

are generally small in sheep, although far larger than in, for instance beef cattle. To circumvent this problem, merino breeders embarked on many ingenious plans such as control tests, group breeding schemes, the show for measured production, veld ram clubs, central progeny testing under natural conditions, selection on ewe productivity, etc.

Then Henderson's BLUP arrived – first introduced into South Africa by Almero de Lange. It is interesting to note that the first three research projects utilizing BLUP methodology in South Africa were all done on Merino sheep and the first BLUP analyses of dairy and beef cattle were carried out by the S A Fleece Testing Centre. BLUP, however, caught many Merino breeders off guard, since the majority, quite correctly, considered the recording of parentage and pedigrees as a complete waste of time and even misleading. Some breed societies in South Africa had full parentage recorded and even the necessary genetic ties. They, however, lacked the necessary insight and today Merino S.A.[®] is at the forefront of utilizing BLUP methodology through their excellent "Merinoplan". My sincere wish is that I will live to see the day when all Merino breeders are members of Merinoplan!

