



the implications of early ageing

by Dr IAN DAVISON

How a program for genetic improvement may lift the Australian alpaca industry into global prominence.

In most recorded histories, 10 years represents little more than an instant. To a child, perhaps, it represents the passage from childhood to adolescence, and to a grown man, the consolidation of the knowledge and experience that is the essence of wisdom. But in the context of social change, biological evolution, geological transformation and interstellar communication, to describe a decade as a brief flash of light is to lend to it a relevance infinitely greater than its due.

It is therefore with some trepidation that I contemplate my own 12 years of experience in the 15 year history of the Australian Alpaca Industry, confidently anticipating that that history is destined to be a long and illustrious one that will eclipse not only its recorded progress to date, but the lives of all those presently contributing to its formative years, and those of many generations of alpaca breeders yet to succeed us.

It is helpful to compare the short history of the Australian alpaca with the more than 200 years of the Australian Merino. Both species

were imported into Australia from a far distant country by entrepreneurs whose confidence in their success was based more on hope than certainty, more on vision than experience. Both of those distant countries had an established history of successfully breeding and marketing the natural products of their livestock. For both animals, the suitability of Australian climate and pastures were unknown.

Two hundred years and more later, the story of the Australian Merino is acknowledged as an integral part of Australian history. How the Merino was further refined by selective breeding to adapt to Australian conditions, and how breeding

practices changed to reflect changing market demands are fundamental to that success. How the Australian Merino came to be received worldwide as the benchmark for quality fine wool is an inspirational lesson for today's livestock breeders.

Only 15 years into its history, the Australian alpaca has many challenges before it if it is to achieve the same worldwide acceptance and acclaim. We are fortunate to have 200 years of experience in animal fibre production behind us to help us meet those challenges, and whilst never losing sight of the fact that the Merino sheep and the alpaca are different animals and different species, there is much that we can learn from the wool



industry without repeating the accumulated mistakes of their long history.

Returning to the 12 year 'flash of light' that represents my experience in the alpaca industry, one cannot help but be impressed by the enormous progress already made in the breeding of what will one day be recognised as the Australian Alpaca. Whilst there may be some who would argue the point, the commercial success of the alpaca will ultimately depend on the quality and quantity of the fleece it can produce, and in that respect alone, the gains of the past 10 years have been staggering. Those changes have occurred by a process of selective breeding.

To be fair, even the most modest and primitive criteria for selection were likely to see major improvements over the initial importations, for which the selection criteria of some would appear to have been little more than the 'triple a' of alive, available, and alpaca. Subsequent importations have been much more selective, by commercial necessity as well as by regulation, and the genetic improvement in both quality and quantity of fleece has been self-evident.

But from here, the going gets tougher. Yes, we want bigger volumes of finer fleece. But we are also looking for improved lustre. And uniformity, of both colour and micron. And, importantly, we want to reduce guard hair. And we want all of this in animals that are sound, mature earlier, thrive in Australian conditions, and have high fertility and long productive lives. And lastly, we demand that these characteristics be shown not only in the dam and sire, but predictably in their offspring!

Consequently, a quick look at a sire, his show record, and his current fleece is no longer an acceptable basis on which to make a sound breeding decision. We must demand fleece weights, histograms, medical histories, breeding records, pedigrees, and a thorough inspection of the alpaca and his offspring. We must integrate all this information and compare it with similar information on alternative sires, and then consider the results in the context of our own breeding objectives. Surely, only a computer can do all this!

Enter the Across-Herd Genetic Evaluation program, or AGE, proudly offered by the Australian Alpaca Association to all Australian alpaca breeders and owners of registered alpacas. Much has been written elsewhere about the AGE, its evolution, its rationale, its implementation, and its implications, which the reader may seek out in the bibliography of this article. Suffice to say that this is the genetic improvement program that was never available to the early

breeders of the Australian Merino, but one which, had it been available to them, might have seen a much accelerated evolution of that species. It is a voluntary program, accepting whatever level of commitment the breeder chooses to make in terms of both detail and numbers of alpacas registered on the program, and which encourages breeders to develop their own personal breeding objectives.

In North America, the market seems inexhaustible, and capable of absorbing all qualities of alpaca. It is therefore very much based on breeding. In Australia, with a limited market, there is a much greater emphasis on commercial fleece quality, and the imperative to grow better fleeced alpacas is correspondingly much stronger. Hence, the AGE, with its focus on genetic improvement. If, over the years, the Australian Alpaca, driven by the need for commercial

animals will need firstly to seek registration on the (Australian) International Alpaca Register (IAR). Should this occur, it could potentially elevate the IAR to a pre-eminent position internationally as the biggest and most universally acceptable register for alpacas.

The corollary of our early AGEing will be threefold. Firstly, the Australian Alpaca stands to become the standard to which all breeders aspire internationally. Secondly, the success of the AGE can potentially expand our register internationally, bringing overseas funds into Australia and the AAA for use in further research and progression of the breed. And lastly, the first two consequences will initiate a third, which is an expanded international market for Australian Alpacas, breaking the hegemony of the closed US market.

Now, that's what I call AGEing well!



superiority, improves at a much greater rate than any of its international competitors, it will gradually emerge as the international benchmark. Other countries, already including New Zealand, who may be considered by the Australians as a strategic partner in this development, but later possibly including the UK, Germany, Japan, China, Canada, and even ultimately the USA, may want to benchmark their own industry and its progress against the Australian standard. But to do so, when our own AGE is already several years advanced, will mean that their

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Dr Ian Davison - Illawarra Alpacas