



Submission on

**Genetic Benchmarking: Potential for Further
Commercialisation of Australian Wool Innovation
Funded or Part Funded Projects post June 2015**

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Submitted to:

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WAFARMERS FEDERATION BACKGROUND

The Western Australian Farmers Federation (Inc.) (WAFarmers) is the State's largest and most influential rural lobby and service organisation. WAFarmers represents approximately 4,000 Western Australian farmers from primary industries including grain growers, meat and wool producers, horticulturalists, dairy farmers, commercial egg producers and beekeepers. Collectively our members are major contributors to the \$5.5 billion gross value of production that agriculture in its various forms contributes annually to Western Australia's economy. Additionally, through differing forms of land tenure, our members own, control and capably manage many millions of hectares of the State's land mass and as such are responsible for maintaining the productive capacity and environmental wellbeing of that land.

WAFarmers welcomes the opportunity to comment on the *"Genetic Benchmarking: Potential for further commercialisation of AWI funded or part funded projects post June 2015"*

AWI INDUSTRY CONSULTATION DOCUMENT BACKGROUND

"AWI is currently seeking submissions from industry on its genetic benchmarking investments. The AWI Board recently extended the AWI and MLA Sheep Genetics Agreement for research, development and extension in MERINOSELECT until June 2015. In doing so the Board also requested AWI consult with Industry on the potential for further commercialisation of all its genetic benchmarking investments.

The consultation document has been sent to ram breeder organisations and industry representative organisations. The interests of ram buyers is also crucial as they fund the majority of the R&D into AWI RD&E as pointed out in the document.

AWI encourages detailed information in submissions that support views or positions of the respondent. All submissions including in confidence sections will be shared with MLA. AWI staff are available to attend briefings either face to face or over the phone on request prior to the 8th of March. This consultation process has been requested by the AWI Board and inquires or requests should be forwarded to Geoff Lindon (geoff.lindon@wool.com) rather than MLA or Sheep Genetics staff.

This commercialisation review will focus on defining what the roles and responsibilities of ram breeders and AWI should be in the future and the relevant governance models according to the industry's perception of where industry or public and private benefit falls. A summary of the submissions will be placed on the website and a report provided to the AWI Board in April 2014. This will allow AWI a year to negotiate and plan with MLA and implement any changes to the funding arrangements of MERINOSELECT starting July 2015."

GENERAL REMARKS

WAFarmers has reviewed the document in question and thanks AWI Staff Member Geoff Lindon (Sheep Technologies and Special Projects) for his availability to answer questions whilst WAFarmers Wool Council met to discuss the contents of the Consultation Document.

Comment on this document was not easy because it is difficult to follow. It is poorly written and the wording is cliché ridden and often ambiguous. Two of many examples are:

1. The sentence *“What elements, that are necessary for commercialisation, have these projects already achieved in terms of governance structures and election/nomination/appointment processes independent of AWI; membership fees and other funding sources independent of AWI; legal status as an entity; policy and procedures documents; and membership agreements in relation to products and services?”* is very difficult, if not impossible to interpret.

2. Does the sentence *“AWI's corporate philosophy on funding on farm research, development and extension, directs funding to areas where there is market failure and where there is the potential to commercialise the outcomes.”* mean that AWI funds areas where farm R,D&E has failed at the market level or where something else has failed at the market level and need R,D&E to remedy it?

1. OVERVIEW (p1)

Commercialisation of research - The Australian Institute for Commercialisation defines commercialisation as the conversion of an idea or knowhow into a replicable product or service that delivers value to a market. However, in the case of these AWI projects, the business model for creating the product and service is also under a commercialisation review.

This definition of commercialisation is totally inappropriate for the Australian wool industry. In broad terms growers pay 2% of their income to fund wool research & development that they anticipate will improve the economic viability of their industry in the long term. Levy payers expect that it will do this by enabling them to produce wool more cheaply or to sell it more competitively relative to the present. In other words, they are seeking industry-wide benefits in the long term. This is the commercialisation that they expect and where it should be measured. Instead, they are being asked in this consultation document to give opinions about the “internal” commercialisation of components of genetic improvements based on which sectors of the industry are likely to gain some economic advantage.

The very strong inference throughout this document is that the only beneficiaries of genetic Research, Development and Extension (R,D&E) are ram breeders and these are represented by Merino Stud breeders. For example: *“The Board also requested that AWI consults with ram breeders on the potential for further commercialisation of all its genetic benchmarking investments. This commercialisation review will focus on defining what the roles and responsibilities of ram breeders and AWI should be in the future.”* Presumably, if these stud breeders

don't think they can make money out of research into genetics then the program should not be funded and if they do think they can make money out of the research they should pay for it. This is both simplistic and inappropriate. If genetic research leads to more efficient production from sheep then it will be commercial breeders who will and should benefit most.

An unknown proportion of this benefit will be dissipated if they have to pay more for rams in order to persuade stud breeders to support genetic research. In other words, it will be largely the buyers of the rams who will pay for benefits of the research that they have already funded through their levies.

Implicit in this is the false idea that research and particularly genetic research is something that can be funded for a while, put on some kind of "commercial" basis and abandoned in favor of doing something else. In this respect, genetic research is no different from any other research. For example, when myxomatosis was introduced to control rabbits in the 1950's it revolutionized the sheep industry by making room for another 50 million sheep in Australia. Sheep producers are still reaping the commercial benefits of that discovery nearly sixty years later.

If myxomatosis breaks down as a control agent, surely we won't waste time debating who are the commercial beneficiaries within the industry? We will get on and fund new research to try to maintain the obvious industry-wide benefits. If genetic research can improve the efficiency of production of wool and continue to do so, then it, too, should not be impeded by micro-management considerations about who within the present structure might gain short term benefit, or worse, by having intermediate players hold progress in the industry to ransom because they do not see adequate short-term benefits for themselves.

- *What definitions of commercialisation are relevant to these projects?*
- *Why have the outputs from the projects not been fully commercialised to date?*
- *Is there a plan to commercialise and when?*

WAFarmers believes that all benchmarking and information services that compare products, in this case rams, should be independent. They allow sheep breeders (not just ram breeders) to choose the products that best suit their goals. The money being spent by woolgrowers through AWI goes a small way towards improving the service and a large way towards ensuring independence of the information. This should be preserved

2. CURRENT BENCHMARK FUNDING (p2)

The annual total spent on benchmark information for genetics of \$0.4M is one sixth of that being spent on shearer and shed hand training (\$2.4M). Both are important in the wool industry but for different reasons. However, why is genetic benchmarking singled out for "commercialisation" and shearer and shed hand training not? Both need to be ongoing and the industry is likely to suffer if either is discontinued.

3. ROLES AND RESPONSIBILITIES (p3)

The governing principles and responsibilities as described in the consultation document seem reasonable and show that AWI's involvement is no more than it should be to coordinate those activities that are unlikely to be coordinated by the component players; for example Merino Bloodline Performance. However, it is questionable whether Merino Bloodline Performance should be funded at \$70K per annum when it is only contracted to be updated every second year and in fact will not have had an update for 4 years when its next report is predicted to appear in 2014.

The fact that some "bloodlines" appear in the analysis and some do not is irrelevant. The whole concept of "bloodlines" is fast becoming an anachronism that illustrates the undue emphasis and influence ascribed to the *Stud Merino* industry rather than the Merino industry as a whole. The consultation document itself shows that the Stud industry is not the major player;

Although only 15% of active registered Merino studs are members of MERINOSELECT, involvement increases to around 30% of "Merino type" rams sold when ram breeders who are not members of the Stud Merino Breeders Associations and Dohne breeders are included.

It also shows that the proportion of people using Merino select and, presumably, ASBV to assist selection is increasing but is far less than in the meat sheep industry. We believe that the goal should be to encourage the wool industry to increase its proportion in the future through a modest subsidy rather than discouraging those breeders or purchasers of rams who see it as a means of assured genetic progress. At this stage many non-committed wool producers are confused by the mixed messages they get, mainly from some influential stud breeders, about the value of ASBVs to the wool industry when their value to all other major animal industries has been shown to be unequivocal.

4. RATES OF ADOPTION AND FUNDING SOURCES (p4)

4.1 Show ring and production classes

AWI should have no part in funding sheep shows. They cannot in any way be considered as research, nor do they enhance the promotion of wool. The only possible promotion is that of those stud breeders who participate in these shows and there is no benefit in this to the industry as a whole. The document is totally contradictory on this item: "AWI does not provide significant funding for this benchmarking" followed by "AWI **does** sponsor some sheep shows however the benefit is calculated as corporate and not industry benefit. What is meant by "corporate and not industry benefit", is anyone's guess.

MBP Once again, the emphasis seems to be on the rate of participation of **Stud Merino** breeders in wether and ewe trials. In the past, these trials have been useful in demonstrating the lack of relationship between performance of progeny and the paper reputation of many of these studs. In fact, it could be argued that many fewer studs would be represented in these trials if it were left to stud breeders themselves to enter animals. Many studs are represented only because commercial breeders have entered wethers and ewes (at their own cost) because

they wish to find out objectively how the bloodline they currently use compares with others. The outcome of this comparison is often that they change to a more productive bloodline and many of the stud breeders who are not represented are presumably more comfortable if they are not subject to this scrutiny. So, the participation rate of studs is not a reliable criterion for the value of MBP. The value to the industry as a whole of having an objective benchmarking system like MBP is undoubted, the challenge is to make sure that it is freed from the negative influences of individual sectors of the industry. A further complication in this challenge is that issues of biosecurity, especially Ovine Johne's Disease, have reduced the willingness of many wool producers to mix groups of animals from many origins on the one property.

4.2 Australian Merino Sire Evaluation Association (AMSEA)

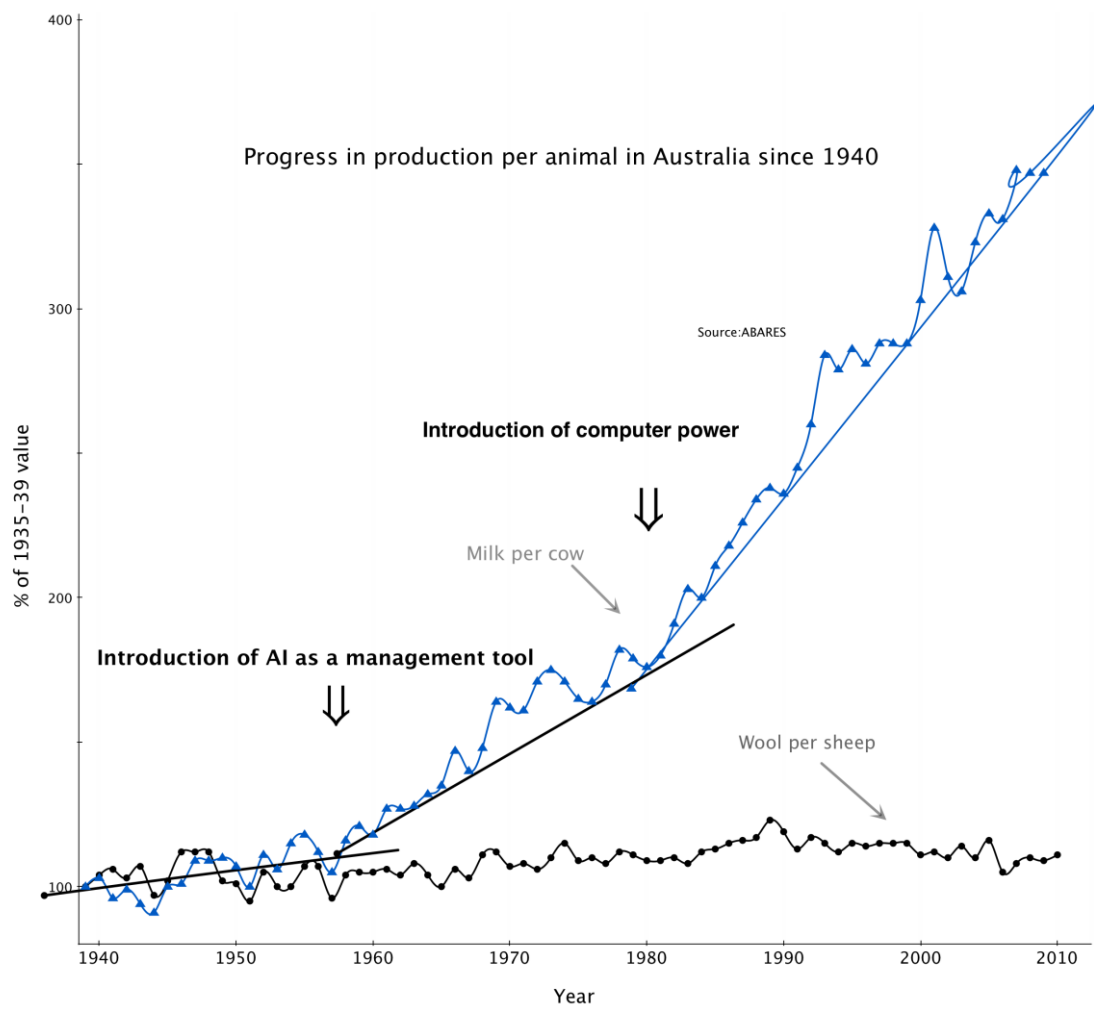
Support for AMSEA is a legitimate and useful target for AWI support. It provides another level of benchmarking to MBP that is objective and, through its linking, is comprehensive. It provides sheep breeders the opportunity to source genetic material that best suits their objectives and includes ASBVs which gives them a modern and acceptable alternative to the more common and unreliable show ring and advertising information.

4.3 Sheep Genetics (MERINOSELECT)

The information in this section of the document is confirmation that the wool industry is well behind the meat sheep industry in its adoption of genetic tools for breeding although numbers of participants and animals are increasing. The decision that must be made in the interests of the industry is not whether the relatively low participation means that the "industry" does not want these tools but whether it needs them. We believe strongly that the low overall rate of improvement of productivity relative to that of other animal industries means that they are needed and radical and widespread support is needed to improve confidence among wool growers and encourage participation. Two important factors reinforce this view. First the co-participation and apparent enthusiasm of MLA is a bonus because it means that much of the common infrastructure and R&D personnel comes at a discount. Second, MERINOSELECT has generated a unique database that can provide valuable research material for a whole range of issues that link genetic and production characteristics of potential value to the industry.

4.4 Sheep Genetics Funding Sources and Expenditure

The facts that we do not have objective measurement of gain in flocks that don't use new genetic tools is hardly a reason for doubting the value of these tools. In fact, we can provide an indirect measure of productivity here. Information from the annual reports of ABARES since 1940 that compare the productivity of wool sheep and milking cows reproduced here shows that sheep have improved 11% in the last 50 years while cows have improved over 350% in the same period. The evidence is clear that sheep under traditional breeding techniques for most of that time have made only miniscule gains(Figure 1)



5) GENETIC ARGUMENTS FOR AND AGAINST THE FURTHER COMMERCIALISATION OF GENETIC BENCHMARKING (p7)

As our previous comments attest, we believe that commercialising genetic benchmarking is not in the interests of the wool industry. The arguments "FOR" in the document are largely facile and somewhat misleading.

We add a number of points:

- There is no objective evidence that use of ASBVs provides an overwhelming private benefit. Many commercial wool growers have little idea of what ASBVs are or how to use them, probably due to confusion created by heavy publicity about the virtues of traditional methods. In fact, rams and semen from studs providing traditional information are probably more expensive than those being sold on the basis of ASBVs alone. The point is irrelevant anyway if the end result is a more efficient industry.
- Genetic research, and particularly research into genomics is in its infancy. This is true for all animal industries. In the wool industry, the opportunity to extend the demonstrated success in identifying relatively simple traits like coloured fibres and polledness into areas such as resistance to disease entities like Footrot and Ovine Johne's Disease or hard-to-measure traits like reproduction and longevity must be taken and developed as quickly as possible. No commercial entity is likely to have the resources, expertise, willingness or industry-wide vision to continue this research which could extend way beyond genetics.
- The existing databases that already involve millions of pieces of information about wool and other traits are a unique resource that is already capable of underpinning research into better understanding of the way we should manage sheep. The fact that information about individual flocks is officially "owned" by the flock owner does not preclude this information being used anonymously along with that of hundreds of others for the common good.
- Objectivity and therefore the confidence of woolgrowers in the quality of the benchmarking data that they may use in the future are both assured if the data are in independent and commercially disinterested hands.

6. POTENTIAL GENETIC BENCHMARKING BUSINESS MODELS (p9)

Only one of the four options outlined (**Option 1**) is likely to lead to an acceptable outcome for wool producers for the reasons stated above. Option 1: *"An operationally expanded version will accommodate the oncoming genomic era. Breeders pay for private good outcomes and MLA and AWI pay for all public good R&D and jointly manage Sheep Genetics."*

- It would be economic madness not to be collaborating with Meat and Livestock Australia (MLA). Much of the work and information about the sheep as an animal is equally relevant to both industries.
- The pool of researchers and scientists in Australia capable of making a valuable input in genetics and genomics in sheep is very small and

diminishing. Breaking them up or reducing their capacity to do research further would virtually see the end of genetic research into wool sheep in Australia.

- This option would still need to cater for a tightening of the necessity for goodwill between the parties. There are several recent examples in which professional or other unspecified jealousies have disadvantaged the industry such as the public quarrel between AWI and the Sheep CRC over the Information Nucleus Flock and other issues or between AWI and MLA about their management policies.

7. ITEMS OF SPECIFIC INTEREST FOR CONSULTATION COMMENT (p13)

These items have largely been covered specifically in the body of this response. However, WAFarmers has some general comments on the tenor of the questions posed in this section. As throughout the document, the central role of the Stud Industry appears to have been assumed. Although many progressive stud breeders have been prominent in taking to the new technologies and making good, measurable progress as a result, a greater proportion have not and many have been actively opposed to them. In fact, one prominent and strategically placed stud breeder is quoted as saying *..."science couldn't teach Australian growers much new about breeding better Merino sheep..."* So, behind all of this is an ideological war, the casualties of which are Australian wool growers. Surely, part of the solution is revising the social structure of the industry so that one small part of it is not given the capacity to impair its genetic progress under the pretext of "commercialisation". The pig, poultry and dairy industries have made outstanding genetic progress simultaneously with the influence of the stud section of these industries virtually disappearing.

End.