



AMS NEWS

The Australian Merino Society

(Incorporated)

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Executive 2006/07

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President's Report

Dear Members



Helen Paganoni

It has been difficult to amass the complete picture of our AMS and where it is today. In it is all the business dealt with by the Executive Committees over the last decade, not to mention the immediate deliberations of the current committee. What has not been difficult is to appreciate the efforts and distinctive achievements of Jim Shepherd and his family for the long time they were managers of the Central Nucleus flocks.

How appropriate it has been to recently see Jim be inducted into the Royal Agricultural Society of WA Hall of Fame. We congratulate Jim (and Lois) on this fine achievement, one given for breeding endeavours based on measurement and selection.

The area of measurement is one we constantly talk about. We want our ram breeders to use the best tools available for measurement. They need time and money to do this. They need to have good control of their operations and achieve an economy of scale that contributes to that most profitable sheep we also talk about.

I'm told the trick to finding solutions is to look back at a situation, a problem or a success and identify what factors were at play, and what delivered the consequences. With regard to our AMS, what has always worked is disciplined measurement and selection based on that measurement.

At this point it is indeed appropriate to thank the three CN managers and various RBC managers for their practical and academic applications to ram breeding. They have followed our Regulations and Breeding Policy Committee recommendations and we need them to continue in this vein. The CN managers are in the midst of a settling period and will have the advantage of being able to compare CN flock measurements against those of their respective RBC flocks.

Our Index Selection method has quickly brought us to a very handy position in using EBVs. Indications are that our sire data going into SGA is comparable with the best. Some farm advisory groups acknowledge our sheep as the best performers. Studies show that our sheep are in the right area of the right quadrant on that graph. Learned parties stress the need for us to stay with all that makes our traditional AMS sheep. We have to breed for fitness and we have to be able to measure it. We have to measure the dams. There has to be sire pedigree recording.

A priority is to keep and further progress our gene package. I believe it is the responsibility of your Executive Committee and its Breeding Policy Sub-Committee to work to this end. Any strategies we adopt in this quest will actually cause changes to happen. Some changes we will not be able to predict, but all we will be able accommodate. The need is to adapt for now.

The MLA and other parties tell us livestock numbers are still in decline and there will be future supply issues. If current farm-gate prices are meant to reflect any shortage, we could argue we are not seeing it yet. If not, either we change our livelihoods or we continue to reduce our costs AND make changes that will allow us to do more than survive.

This brings me to one undisputed fact my fellow committee members cannot explain yet they agree is problematic. Too many individuals (usually men) just have to breed rams. This dilemma is not peculiar to the AMS, but if a critical objective of the group is to grow the most profitable sheep it is a contradiction.

At Nuytsia Grove, where we stopped breeding rams seven years ago, we continue to look at areas to improve our production. Under the supervision of daughter Beth, we are into the second year of a lamb survival trial using edible shelter for twin bearing ewes in the commercial setting. A part of the Lambmax project, ewe nutrition and condition-maintenance are vital components of the exercise and despite 2006 being the driest year known to us, we still managed to mark 110% lambs. There were, however, 140% "on board".

Supplementary feeding continued well into lambing but the twin bearers under scrutiny were in small paddocks. It will be interesting to see the results this year, when only 114% lambs have been scanned.

As is often the case, when we try to answer a few questions, we find there are many more to ask. And not all questions relate to the sheep. A recent fox bait run we did had 34 baits taken over nine days, followed by another 16 taken over seven days. Unless known fox behaviour is different from what actually happens, we find that to be very high. However, it is not on our agenda to study the fox and we will do another run with the baits before lambing in July.

In unison with other sheep industry bodies our aims as producers are identified:

- to reduce the Cost of Production (keep it low?)
- to observe and ask questions, that is to do on-farm research
- to allow for post farm developments, especially with regard to business relationships
- to enhance wool demand and price

Experiences dictate responses and we could say half of our membership is not fussed about any particular direction the AMS should take. As long as that easy-care, fine-woolled, large plain bodied and fertile sheep is in the picture, we'll take more and more of it. And it would be a bonus if ram prices

The Editor, the AMS News

Frank Legge, Life Member

Is the AMS going off the rails?

It is nearly three years since I became sufficiently concerned about the direction that the AMS was taking that I felt it necessary to write the letter for the AMS News which was titled **Trait goals versus the profit goal.**

In that letter I pointed out that the increasing tendency of the AMS to consider trait production goals was moving the society away from its original purpose, which was to breed the most profitable sheep. Some members were attempting to work out what type of sheep they would like to have in ten years time and calling for an index that would achieve this type, rather than using an index which balanced the traits according to their economic value in the market place. Many members understood that to do so would necessarily reduce profit, however few seemed concerned enough to bring this up with the Breeding Policy Committee or the Executive Committee. Perhaps members felt that because I had expressed my concerns, appropriate action would be taken. This, however, did not happen.

One of the arguments put forward for using a trait goal index was that with the economic index one could not say exactly what type of animal would evolve in ten years time. The logical response to this argument is that it doesn't matter what animal type evolves. What really matters is the way the bank balance evolves. Nevertheless, I did perform a computer experiment to see how the flock would change using the then current best economic index. I made reasonable assumptions about the selection pressures used at Central Nucleus and carried a flock through three generations, which is about ten years, taking into account the heritabilities of each trait. I reported the results in **Index update, Feb 2005.** This gave the result shown in the following table of percentage increases for each trait.

Trait	Increase (%)
FD	0.1
FW	10.3
CV	-3.0
SS	15.0
YLD	5.5
BWT	2.9

This exercise showed that it was false to say that with an economic index one could not predict the future animal type.

were not to increase. I know all ram breeders would agree that selling more rams would have an impact on prices.

We need a unique market for wool. It does not compete with other fibres and the developments in the marketplace are settling into this fact. Sheep meat has become an equal income derivative and many parties have made that area their focus, with, however, the Merino ewe base and meat bloodline sires. We have not only maintained that important ewe source but we have found the Merino in itself can be a meat animal. We have kept the best of both worlds.

That said, it is not easy albeit impossible to meet everyone's expectations. We have a past rich with endeavour and breaking new boundaries that gave energy to what was a simple, rewarding task.

With this in mind, all members are invited to accept the careful and due recommendations made by Executive for reform within the group, recommendations that should achieve preservation of achievements and prepare the group for sustainable and improved prospects in the future.

Helen Paganoni
President

There is no significant change in fibre diameter but all other traits show improvement, some substantial.

Even with this information now provided, there was still no indication that the AMS would abandon the development of a trait goal index. I was becoming alarmed that the society appeared to be in danger of losing the one thing in its breeding policy which distinguished it from other groups and studs, namely the aim, as set out in the constitution, to use scientific methods to breed sheep according to the guidance of the market. It is obvious that to select simply on the basis of altering traits by a specific amount is not scientific, the goal being no more than a guess. It may of course be an educated guess, but why guess when calculation is possible?

I tried to bring this issue before the members again in April 06 and wrote another paper, portions of which are copied below:

AMS drifts toward trait goals – a serious concern.

I have a profound concern regarding the way in which the AMS appears to be drifting towards the idea that it is a good thing to set up a list of trait breeding goals to aim for at a particular time in the future.

There is no way of knowing the relative importance of each trait in the future. As we cannot know the relative importance of each trait we cannot know what will be the ideal animal to maximize income at this future time. We have had this argument before about the importance of fibre diameter. We stuck with a high level of selection for finer wool long after it was economic to do so and lost money and members as a result.

I would hope members will see the wisdom of continuing to use our accurate non-linear index, applying it not to the physical values but to the EBV values, if available, thus increasing accuracy and incorporating the benefit of correlations. This would combine the benefits of both worlds, the economic and the genetic, and we would never again be faced with debilitating debate about breeding direction, and combating entrenched positions. We would simply study the market, discuss its moves and decide how closely to follow them.

It is clearly time to remind members once again that ignoring the market can be very costly in both money and membership.

I believe that the AMS is a wonderful organization and it grieves me to find that such a difference of opinion has developed.

Some of you may be surprised to discover that there is a fork in the road which needs attention. I ask you to consider the above and give careful thought to which route you would like the AMS to take. Perhaps some of you will see fit to present a notice of motion to the AGM to reaffirm a commitment to

selection of the most profitable sheep and to using an index with appropriate economic weightings for this purpose. It is my opinion that if such a motion were rejected in favour of breeding for trait goals it would represent such a departure from the original vision of the founders of the AMS that revision of the constitution would be required. There is an urgent need to clarify this issue so that dissent is put behind us and future planning is facilitated.

Central Nucleus Reports

Ashley Hobbs, Shackleton CN Flock Report

Hope everyone is well and that your season is or will get underway soon.

Here at INGLE we are like most others with livestock, doing our best to keep stock in good enough condition so they can be productive and as well as trying to keep our paddocks stable. In the main I think we are doing a reasonable job.

Back on October 10th we held our first CN distribution day. Lucille and myself were very happy to meet so many of the Shackleton CN flock clients. Like all occasions planning goes a long way to keeping operations running smoothly but you can always improve. We have worked out what did and did not work and will be heading into this year's distribution day with more confidence.

This year we have mated the ewes for 35 days with the rams commencing joining on 14th Feb. So we are due to pregnancy scan on the 9th May. I do this as I don't want to waste feed on dry ewes. There are 1226 ewes in the ram breeding flocks in total with 26 sires used over them. Older sires are used over the maiden ewes and first time worker rams over the older ewes. All progeny will be linked through the sires and identified to their sires using DNA collected at lamb marking, well that is the plan anyway. Which is different to the blood we're yet to collect from the red tags, which I'll try an elastic

band around the ear, apparently that gives a good result for collecting. We attempted to collect at weaning but that was proving to be very time consuming and unsuccessful. Maybe the aforementioned technique would have worked then but I didn't hear about that until a couple of weeks ago.

Muscle scanning has been delayed past the ideal time for measuring due to the season. Ideal is at approximately 7-8 months of age. It probably isn't all that surprising that you can have reasonable looking weaners but they are very lean and what we want is variation of both muscle and fat. Hopefully we can have it out of the way by the end of June. That will just leave worm egg counts and fleece sampling to do.

It is one of the ironies of being a ram breeder testing for worm resistance. You want your sheep as healthy as possible and growing well, but to check for worm resistance you need to get worm levels up high enough that sheep are getting a significant challenge which gives a production check. Average worm egg counts need ideally to be around 500 eggs per gram.

Happy seeding and trouble free lambing to all.

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Ian and Margaret Hesford, Rambodale CN Flock Report

Unlike most of the rest of the state, our season is shaping up quite well with reasonable opening rains to follow the floods we had in January. As a consequence we currently have very good pastures and sheep that are definitely not doing it tough!

The Rambouillet Meridale flock were mated in the middle of December - 498 ewes in total were mated. The aim is to get this number up to app. 550 in subsequent years but due to the age of the original flock a fairly heavy cull was necessary. Lambing is well underway with percentages and health looking good at this stage.

The initial cull on the 2006 drop red tag ram hoggets was done in mid April. This reduced numbers to 128. Testing on these will commence in mid June and the expectation is that 50 to 60 rams will be available for distribution from mid September. Brucellosis testing will be ongoing in this district and our aim is to gain accreditation as soon as possible. We will also be aiming to decrease the amount of horned animals in the flock and hence will cull horned animals much more aggressively than polls. Last years wool trait results were pleasingly good (flock average for FD 17.7, yield 62.4, Staple Strength 34.5, CFW 2.91 for 10mths wool) and the expectation is to at least keep these constant with the aim of having a gradual

improvement over time. The index used at present is close to Frank Legge version D1.5 with a slightly higher emphasis on yield and staple strength. The emphasis on increasing body weight and good meat traits within the flock will remain with eye muscle testing also to be included this year. We are not however, planning to DNA test at this stage.

As with AMS objectives, drenching is always kept to a minimum. All hoggets were drenched at weaning and have not been done since. Even though they have been on green feed for a number of months, the amount of animals showing signs of worm problems are minimal. Faecal egg count testing will hopefully confirm that this is not an issue.

As this flock (Rambouillet and Meridales) has been run as a combined flock for the past three years, the intention is to continue along this path. As such we will now use the name RAMBODALE when referring to this part of the CN enterprise. This would seem to reflect the combination of genes used in the flock.

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Craig Morgan, Eneabba Nucleus Report

2006 take two. It should be easier this time but it isn't. There is no slack in the system and therefore very little room to move.



Three Springs 30th May 2007

We picked up the farm next door for agistment over summer and that contained some spraytopped lupin crops. This allowed us to keep all the sheep we still had, we were in the process of deciding what else to quit. The sheep came out of summer very well. At shearing in the 1st week of April the whole flock would have averaged better than CS 3. They are not that now though. We have fed more lupins so far than we did all last year trying to not let them slip too far.

A perspective on the 'new' index

Dr Tony Schlink, Member with Special Qualifications

There has been some debate concerning the index changes taking place within the Australian Merino Society (AMS). This 'new' AMS index is the result of developments in the Merino industry that are designed to improve the profitability of Merino production. The 'old' AMS index is based on the measured parameters of sheep performance available at key times in the animal's life with trait weights dependent on economic values without incorporating the impact of heritability on the traits selected. The 'new' index is in reality a refinement of the 'old' index in that it will incorporate knowledge of the heritability of sheep production traits. There is no impediment to placing an economic weighting to produce a final \$index with the 'new' breeding index.

AMS was founded on the basis of questioning the 'traditional' approach of stud breeding that had been established in the late 1700's in the sheep industry. In 1980 J.H. Shepherd questioned the introduction of new genotypes into the Australia Merino population to help break an observed plateau in Merino performance after intensive selection for 9 years in research flocks. His proposal was that this impasse may be broken by making use of strains of Merino sheep that had not been intensively selected for these production parameters. This would allow sheep to be intensively selected for a range of production parameters from within these non-intensively selected flocks. This goal was undertaken through the AMS, as a pioneer, in commercial Merino breeding to improve sheep productivity based on an index that contained both body weight and fleece parameters. Selected sheep from within commercial flocks were passed on to a ram breeder and from these ram breeder flocks selected sheep were then passed to a central nucleus flock resulting in the three level breeding structure of the AMS. The central nucleus flock possessed the best of the best from the large population of Australian Merinos.

AMS thus operated outside the square of conventional stud breeding to produce a profitable Merino sheep by being an early adapter of breeding technologies. This involved an index based on measured parameters with an economic weighting to index the parameters. Breeding technologies have progressed significantly since Shepherd's 1980 address to the Australian

We single sire mated 11 groups this year. There was no AI. Three of the groups were selected as last year for high CFW, SS & Yield. Pregnancy scanning results were pleasing. All dries have been sold. We are now down to about 900 ram breeding ewes in total in the 3 ram breeding flocks. These are in 1 mob at the moment but will be split up shortly for a 1st of July lambing. We put the rams in a fortnight later this year but they came out the same time to give us a 4 week lambing. This will allow us better management of the sheep. Our conception rate does not seem to have been affected at all.

Ram shearing happened at the end of May and 340 rams were tested. Wool cut and wool length were both down. But some still managed to do it with some good looking sheep with beautiful long white soft wool. For 500 rams and 16 cows on 3000ac since spring 2006 the bare soil is incredible.

For the second year in a row it seems that no crop will be planted on dad's farm. We have reduced canola and lupin crops in the ground with a thin but OK germination. As of 14th June we have not planted any wheat. We will put some in, but the 30th June is our cut off date.

Craig Morgan, CN Manager, Three Springs

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Society of Animal Production. The development of powerful mathematical models and cheap computer power has moved animal breeding beyond the revolution of group breeding schemes pioneered in Australia by AMS. Faster rates of genetic gains can now be achieved using highly pedigreed flocks of known parentage than the group breeding schemes based on animals of unknown genetic background. The value of known genetic backgrounds is the ability to produce animals with calculated breeding values. These breeding values are in reality a confidence level for a sheep to produce a specific outcome. A sheep with a high breeding value for trait or group of traits will have on average superior offspring for the trait or group of traits than sheep with a low breeding value. This use of high breeding value animals has been demonstrated for a number of animal species and is rapidly being demonstrated in the prime lamb industry.

The other move against group breeding schemes in recent times has become the increasing risk of disease transfer between flocks. Thus, the structure of donated ewes to a cooperative central ram breeder has been broken down with increasing number of ram breeders not accepting outside sheep. Thus, the traditional AMS structure is changing.

The next phase for AMS is to incorporate the more recent developments in sheep breeding and trying to keep pace with recent developments. Modern genetics in a number of animal species has become captive of corporate bodies due to its expense. AMS, being an early pioneer based on cooperation side-stepped this trend to make genetic progress but now needs to evolve to keep making progress.

The 'new' index is planned to incorporate heritability data into the index. This 'new' index is the result of a lengthy consultation process with both ram and commercial breeders that aimed to develop the best options for producing the most profitable sheep into the future. The steps taken were:

1. Develop list of future customer requirements

2. List your flocks future production targets on the basis of current performance
3. Breeding targets were then established
4. Selection criterion were chosen and prioritised

The resultant list of breeding goals is aimed at breeding a sheep for the future sheep market that will have a greater emphasis on meat production than in the past with a great importance place on wool. This change in emphasis to meat needs to be done with out losing current genetic gains that have been achieved within AMS. The 'new' index is designed to achieve these flock goal and continuing to produce the most profitable Merino sheep.

AMS ram breeders are incorporating the new technologies into their programs. The data is being entered into SGA's data base that is, in effect, a benchmarking system for sheep. AMS ram breeders will start to be judged against all other ram breeders in Australia for a range of production traits. AMS is now being evaluated against a large number of other breeders each with their own breeding goals. The sires listed in the data base will have breeding values attached based on the performance of the sire.

'A new model to study the effect of nutrition on follicle development in ewes.'

Dr Carolina Vinales Gil

There is a need to increase the reproductive efficiency of ewes and ovulation rate is one of the first steps in the reproductive process that can be targeted. In line with the 'clean, green and ethical' theme of our project, we are pursuing the responses to nutrition. Long-term nutrition increases ovulation rate by 12-20% for every 10 kg increase in live weight. Short term nutrition, or focus feeding (eg lupin supplements), can also increase ovulation rate, but the responses are very variable ranging from 0-54%, making it difficult to formulate recommendations for farmers. To tackle this problem, we need to understand how nutrition and ovulation rate are linked. This topic has been studied for 30-40 years with only limited success, probably because of between-ewe variation in the processes inside the ovary that govern the number of ovulations. We have thus developed a new model for our physiological studies by taking control of follicle development and avoiding some of the uncontrollable factors that have disrupted research for the last 3 decades.

This was made possible by major advances in ultrasound imaging a technological break-through that allows us to monitor the growth and development of follicles in the ovaries of a ewe without resorting surgery. We use a rectal probe, rather than the abdominal probe that is used for pregnancy scanning, and we can make daily observations of the follicles in the ovaries of every ewe in an experiment. We now know that the follicles grow in a succession of "waves" during the cycle. Moreover, in any flock, there will be ewes that have 2 waves, 3 waves or even 4 waves of follicles that grow and die before one (or two) follicle finally succeeds in ovulating. This variation in number of waves means that, when we give a flock a short nutritional supplement, there will be ewes at widely different stages of follicle development. The hormonal effects of the supplement will affect these ewes differently, hence the variation in the way their ovulation rate responds.

For commercial AMS sheep producers, this example from the dairy industry highlights the importance of getting your sire source correct. In the dairy industry where AI is extensively used, and if, the AI organization uses a sound genetic program, 76% of the genetic gain is being taken care of for you. The dairy farmer only needs to worry about the remaining 24%, 18% of which is accomplished by choosing a group of sire from the AI organization that fits their selection goals. The remaining 6% involves the selections of cows to produce replacements. I would assume a similar set of number applies to sheep breeding and if so, it is critical that the ram breeders get their genetic program right for your production goals.

The 'new' index being developed can also be used to select ewe in commercial flocks if appropriate measurements have been taken. However, in view of the above example from the dairy industry, the cost of testing should be considered in relationship to the soundness of the genetic program of your ram breeder and your farm consultant should be able to undertake the appropriate calculations for you.

To overcome this, we have developed the "one-wave model". The basic idea is simple: the first follicle wave of the cycle after the previous ovulation will be virtually identical for all ewes. To make sure that all ewes are in their first wave, we inject them 3 times with prostaglandin, every 7 days. We can then feed the supplements between the second and third injections and have a much better opportunity to look at how nutrition is affecting follicle development.

Using this new 'one-wave' model we were able to study the effects of long and short-term nutrition on ovulation rate. In our first experiment we took 40 ewes that were condition score 3 and fed half (20) of them to gain condition for 8 weeks to be condition score 4 (fat), and fed the other half (20) to lose condition for 8 weeks to be condition score 2 (lean). We then applied the 'one wave' model and supplemented half of the fat ewes (10) and half of the lean ewes (10) with approximately 500 g/hd/day of lupins (~twice maintenance) for 6 days during follicle emergence (we started the supplement 2 days after the second injection of prostaglandin). What we found was that the ovulation rate of the fat ewes was 17% higher than the lean ewes and the ovulation rate of the fat supplemented ewes was 55% higher than the lean supplemented ewes. The fat ewes had higher FSH concentrations and more follicle waves than the lean ewes. There was an additive effect of long and short term nutrition.

Results like this would not be feasible with such small groups of ewes without the 'one wave' model (normally, we'd have to use groups of 50 per treatment). This now allows us to make detailed measurements on the physiological relationships between nutrition on ovulation rate. Finally, we might be able to find out why short-term supplements sometimes don't work.

Provided by the WASAP Treasurer

Looking for livestock production information? Find it on the Livestock Library

The aim of the Livestock Library www.livestocklibrary.com.au is to provide free access to a wide range of information of value to Australian livestock industries. The Livestock Library is an initiative of the Australian Sheep Industry CRC and the CRC for Beef Genetic Technologies, with funding from Australian Wool Innovation.

The Livestock Library enables users to find information on any topic relating to Australia's livestock industries – both research papers and information prepared specifically for producers. You don't need to know where the information is, just search the Livestock Library database and it will provide you with links to relevant resources published in conference proceedings, journals and on websites.

There are over 20,000 resources available through the Livestock Library and more high quality information is continually being added. The Livestock Library stands out from other information sources as it provides access to full text papers presented at Australia's three premier livestock production conferences – Association for the Advancement of Animal Breeding and Genetics (AAABG), Australian Society of Animal Production (ASAP) and Recent Advances in Animal Nutrition in Australia (RAANA). It also provides access via its brief and advanced search screens to complete sets of the following journals:

- *Australian Journal of Agricultural Research*
- *Australian Journal of Experimental Agriculture*
- *Reproduction, Fertility and Development*
- *Wool Technology and Sheep Breeding*
- *International Journal of Sheep and Wool Science.*

Important features of the Livestock Library are

- It is freely available to everyone with Internet access and is a valuable source of information for people who do not have access to a well resourced agricultural library.
- Everything referenced is available in full text. (Some articles published in journals cost unlicensed users up to \$25.)
- Much of the information, in particular conference papers, is not available in full text from other sources.

Visit the Livestock Library www.livestocklibrary.com.au and experience speedy access to a huge range of high quality livestock production information.

A link will also be available shortly from the AMS website.

Sheep worm control - the latest advice for Western Australia

Dr Rob Woodgate, Department of Agriculture and Food, Albany Western Australia

Resistance of sheep worms to drenches is continuing to worsen in WA. Results of drench resistance testing completed between 2003 and early 2006 showed ivermectin resistance in 75% of the results and even resistance to the triple combination of ivermectin plus white/clear combination on some properties. As has been the case for a while, 75% of tests checking white/clear combination also showed resistance.

For treatments to remain effective, this will place increasing pressure on the more potent ML (macrocyclic lactone) chemicals such as abamectin and moxidectin and the increasing number of triple or more combination products. Therefore it is now more important than ever to protect the remaining effective drenches on a property - avoid unnecessary treatments and do not just rely on the chemical drum for effective worm control.

BLANKET SUMMER DRENCHING - A THING OF THE PAST

As there is no doubt that summer drenching is one of the major contributors to the drench resistance problem in Western Australia, recent research has been encouraging in finding that it might not be necessary to summer drench every mob of mature sheep.

The WA Department of Agriculture and Food (DAFWA) has been carrying out regular faecal worm egg count (WEC) monitoring of sheep mobs throughout southern WA since 2001. This has involved up to 38 properties, located from Northampton, Eneabba and Moora in the north to Albany, Jerramungup and Esperance in the south, and includes the AWI Ltd funded Integrated Parasite Management of Sheep Project demonstration sites.

The results so far have suggested that farmers still need to treat weaner sheep with a single, fully effective summer drench in WA. When checked in November or December, only 4 out of 42 mobs of weaner sheep had mean WEC below 200 eggs per gram and more than 60 percent of mobs had mean WEC greater than 500 epg. This included early and late drop lambs and mobs of early born lambs that had been given a weaning drench.

However many mobs of mature ewes (older than 2.5 years) had very low WEC when checked in November or December. Between 65 and 85 percent of the mobs had a mean WEC below 200 epg and it is strongly suggested **that a broad-spectrum summer drench could be avoided in these sheep.**

Avoiding a summer drench in some or all of the mature sheep on a property is one potential solution to helping slow down the worsening of drench resistance.

WHAT ARE THE RISKS OF AVOIDING A SUMMER DRENCH IN MATURE SHEEP?

The DAFWA research showed, unexpectedly, that the WEC of many non-summer drenched mobs rose during the summer-autumn and this finding is yet to be explained.

This raised concerns of potential detrimental effects on liveweight and wool growth however no major significant effects have been measured during the summer-autumn period in trial sheep that did not receive a summer drench.

One definite major risk from a 'high' WEC during autumn is excessive worm contamination of pastures. Excessive worm contamination of paddocks from about late March onwards has been shown to increase the risk of subsequent worm problems in late winter or spring. **Therefore mobs that are not summer drenched should be monitored visually during the summer-autumn and WECs checked again no later than the first week of April.** A treatment is recommended if this result is above 200 epg and/or based on other considerations, such as the time of lambing of mature ewes.

Additional pre-lambing drenches may also be required in some years and extra WECs are important if the sheep or seasonal conditions are poor and after atypical seasonal events such as summer rain and/or early breaks.

DON'T FORGET BARBER'S POLE WORM

None of the DAFWA monitored properties had significant levels of barber's pole worm and so it was not possible to evaluate the effects of avoiding summer treatments on the control of this worm. **Therefore it is strongly recommended to maintain current barber's pole worm control practices if this worm is present on a property.** If in doubt, seek local advice from a veterinarian or qualified sheep worm adviser.

NOT JUST THE DRENCH GUN!

As always, it is also important to include non-chemical approaches, such as the breeding of worm-resistant sheep, as key parts of an overall effective and sustainable sheep worm control program.

Biosecurity strategies, including effective quarantine drenching, to reduce the risk of introducing worms more resistant than those currently on a property are also critical.

Further local information should also be sought from your veterinarian or sheep adviser and the WormBoss national website at www.wormboss.com.au

Avondale Ewe Trial – 2003 drop

50 ewes/team 5 teams

A recent report on the final shearing [31st August 2006] of the ewe teams in the trial highlight the following in regard to the AMS team in this trial – entered by Vince and Kath Stacey (this flock is now owned by Ashley and Lucille Hobbs).

In the final year, the AMS team has

- Highest av. BWt (6.5% above mean)
- Lowest micron (2.0mic below trial mean 19.3mic)
- Lowest av. Fleece yield (63.6% vs av. 67.5%)

- Lowest CFW (0.5kg below mean)
- Highest clean price (27% 267c above mean)
- Highest average wool value
- Highest weaning % (110% vs mean 96%)

Wool value is established using a 5 year rolling average from last quarter 1999/2000 to 2nd quarter 2004/05.

For more information contact Ashley Hobbs.

The AMS Meridale Breeding Program 1981

An excerpt from a 1981 article

The AMS has embarked on a cross-breeding program to attempt to break what appears to be a plateau which has occurred in wool production in the Australian Merino.

Statistics in wool production per head of sheep in Australia over the past 50 years show an increase of about 17% in that time, and about 5% gain in the past 25 years. There may be arguments that the use of trace elements, and better pastures, may have been responsible for some of these gains. It is obvious to me that the merino as we now know it has plateaued and any gains we can expect would be small.

The AMS have made gains in fleece weight, probably in the region of 10 to 15% over the past decade, through the missing of all strains of the merino and the use of measurement. However, we must be realistic and cannot expect this to continue forever.

Because we are committed to our aims, in particular 'to improve the financial returns of sheep farmers' we have chosen to repeat that which happened to the merino 100 to 150 years ago but along better programmed lines.

It would seem that the merino was crossed with other breeders – in most cases, quite secretly – however in reading of the development of the breed some authors have stated knowledge of the use of mainly English Longwools over pure merino flocks. Mostly this occurred in the 19th century, however in the 1950's apparently Corriedales and Polwarths were used to assist in the polling of some merino flocks.

The success of an experimental flock with Jim Shepherd commenced in 1967 where he crossed cast-for-age merino ewes with Border Leicester, English Leicester, Poll

Dorset and Dorset rams to develop the Beddale breed has given us great confidence in attempting a cross breeding program.

Our aim is to cross every breed of sheep in Australia and New Zealand with the AMS merino in a well programmed giant mix. At this stage the program involves 40 flocks, with about 38,000 ewes, each flock using different breed or breed combination. It will eventually involve something like 100,000 ewes.

This program is being run quite separately from the pure merino program.

Some members running these flocks have discarded their pure merino flock in favour of a complete crossbreed flock because they have discovered that about the only thing the merino does well is produce plenty of quality wool.

The breeding program is structured so that all breeds have the opportunity to cross, allowing for gene combinations to have an effect.

This program has only been in operation for a few years and is still being developed, however, we cannot restrain ourselves from getting a little excited about what we are observing within these flocks. We can now confidently predict the new breed will be superior to the merino in clean fleece weight, bodyweight, lambing percentage at marking, milk production, mothering ability and eventually fibre processing qualities. Although no official trials have been conducted, there are significant facts which we have observed.

Bruce Hobbs, Brookton – April 1982

Report of Special Selection Flock Owners Meeting

I am a fairly conservative guy so please excuse my low enthusiasm. The flock commenced when I purchased 300 Corriedales ewes from Ian Turton a member of AMS who had been selecting to this flock fleeceweight and bodyweight for a number of years. 3 Rams, Coopworth, came from New Zealand arriving the 10th March. It was a very poor feed situation then so it must have been a tremendous shock to these rams having come from the green of New Zealand. After 3 weeks traveling they were dropped in with 300 Corriedales ewes. On the 15th April the rams were taken out because they were required for another flock. In September 83% lambs were marked. When the wool classer saw the lambs come through the shearing shed he asked 'what are these?'. When told they were crossbred lambs he wouldn't believe it as their wool was so soft. They were weaned mid-November and looked poor in mid December.

flock was an embarrassment to me until July. Around April I noticed 12 ram lambs running with their sisters seemed to be most interested so in mid-May the ram lambs were removed. In September the ewe weaners dropped 37% lambs at 12 months of age. Five weeks later at their second shearing with 12 months wool their greasy fleeceweight – fleece weight only – was 3.71g average, and so by the time they were 13 months of age they had returned me that amount of greasy wool at 200c per kg plus a belly plus 37% lambs. The rams were shorn at 10 months of age cutting 2.8kgs of 28.5 micron wool which was 70.3% yield. The bodyweight at that age was 40kgs.

Coopworth rams have been joined with AMS ewes and the 140 ewes joined produced 107 lambs. At 4 ½ months of age their bodyweight was 31 kgs compared with the Coopworth x Corriedale progeny at that age of 25kgs.

They were snotty nosed, scungy things. I couldn't get rid of them so I had to keep them. I selected out the top 12 ram lambs. The

'Meat the Future' 8th August 2007

Merinotech – Kojonup Memorial Hall

The Merinotech (WA) forum is on again this year, it will be run on Wednesday 8th August in Kojonup and is titled "Meating the Future"

It is the aim of this forum to focus on sheep meat from the consumer back to the paddock. A total of 11 interstate and local speakers, experts in their fields, will provide the audience with a wealth of information.

By attending the Merinotech (WA) Forum you will:

- 1) Gain a better understanding of what the market is demanding now and in the future
- 2) Learn about the latest processing technologies and management tools

- 3) Gain an insight into the latest research and development projects focused on trait trade-offs and welfare issues.

In conjunction with the Merinotech Forum, a Master Class for ram breeders will be run on Tuesday 7th August to be facilitated by Bronwyn Clarke and Sam Gill of Sheep Genetics Australia (SGA). This workshop is aimed at breeders who have had experience with SGA and precision breeding.

If you would like further information on the Merinotech Forum or would like a registration form, please contact our

Forum Coordinator, Janet Evans Email: janet@merinotech.com.au Phone: (08) 9833 7528

**Annual General Meeting
Friday 10th August 2007
AGM and Sundowner Perth Zoo, South Perth**

Details will be posted shortly.