

Sheep CRC ASBV Case Studies

Document ID:	SheepCRC_29_2
Title:	Ashley & Lucille Hobbs, Ingle Merino Stud, Brookton, WA
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Key words:	Sheep; Australian Sheep Breeding Values; Genetics

This Case Study was developed in conjunction with Sheep Genetics and should be cited as:

Sheep CRC (2012) – ASBV Case Study: Ashley & Lucille Hobbs, Ingle Merino Stud, Brookton, WA



ASHLEY & LUCILLE HOBBS INGLE MERINO STUD BROOKTON, WA

- * ASBVs and visual assessment are used to breed rams for Australia Merino Society members.
- * The customised Wool Products Index reflects the breeding objectives of AMS members and acts as an important selection tool.

The long term use of Australian Sheep Breeding Values (ASBVs), coupled with stringent visual assessment, has given a Western Australian ram breeding group the commercial edge in breeding a Merino that is suited to the environment in which its members operate. The group has also created a ram breeding system that accelerates genetic gain through using leading industry sires and short generation intervals.

The Australian Merino Society (AMS) was established in 1967 by a group of like-minded breeders in Western Australia with the common goal of "breeding sheep to maximise sheep profits per hectare".

Today, Ashley and Lucille Hobbs who run the "Ingle" Merino Stud near Brookton in Western Australia are



one of two AMS studs providing rams, not only to original group members, but to all Merino producers.

A fourth generation sheep breeder, Ashley has always been interested in improving the returns from the commercial side of the business.

"After I finished University, I was involved in a local wether trial that raised a lot of questions," Ashley said. "Since then I have focused on further improving the commercial attributes of the AMS sheep to make them more profitable for commercial sheep breeders."

The AMS selection objective has moved from an index based on raw measurements to the use of ASBVs, both in the stud itself and in the selection of rams for commercial members. By using ASBVs we can track the changes occurring in traits year to year and see the progress we are making accurately without seasonal influences.



"We have created our own customised index which reflects the economic importance of traits to us, called the AMS WP Index (WP stands for Wool Production)," Ashley said. "With the help of the index we will increase fleece weight, yield, staple strength, carcase weight and number of lambs weaned, maintain fibre diameter and reduce susceptibility to worms."

All rams that go back into the stud are selected on the index and, as a general rule, they must perform better than their sire in order to replace him. This is often the case and the use of young rams has contributed to rapidly increased genetic



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gain through lowering the generation interval. Industry leading sires from other studs are also used in regular artificial insemination (AI) programs.

Visual appraisal is just as important as the index numbers and Ashley spends a lot of time assessing rams prior to using them in the stud or offering them to AMS members.

"We assess a huge range of visual traits on all sheep," said Ashley. "Obvious fleece and body conformation faults are culled and scrotal circumference is measured to assess serving capacity."

"The sheep need to be able to operate in the environment that members use them - there's no point having a great indexing ram if he doesn't have the survivability and breaks down in the paddock."

AMS members have recently decided that the Hobbs' should stop mulesing in order to place selection pressure on traits that lead to increased susceptibility to flystrike.



"Breeding a flock that doesn't need mulesing isn't just about reducing breech wrinkle," Ashley said. "Whilst we record breech wrinkle at the first shearing, we also record dag scores, measure individual worm egg counts and cull for excessive urine stain."

Commercial members of the AMS ram breeding group are allocated rams based on the selection index. All AMS members, which includes the Hobbs' own 1300 ewe commercial flock, are given the chance once a year to put in their ram order.

"We offer two grades of rams to our members," Ashley said. "The top grade is for those wishing to breed their own rams and the second grade is for commercial producers."

"Rams are allocated to grades based on the AMS WP

Index, with the top 15% being allocated to the top grade and the next 35% being allocated to the second grade. Anything lower than that is sold for the live export."

Members are allocated rams within each grade based on tag number so the index rankings are randomised.

"We aim to provide each of the approximately 30 members with a team of rams that have an average index for the grade they are buying from," Ashley said.

"Each member is provided with an additional 20% of rams than they request so they can select the ones they want," Ashley said "Many simply select the highest indexing rams and leave the lower performing ones, whilst others select on visual characteristics."





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Ashley is confident that AMS is heading down the right track in making their members flocks more profitable.

One such member who is looking to benefit from the genetic gains that AMS is making is Brett Whittington, who runs a cropping and sheep enterprise just down the road from the Hobbs'. Before joining AMS as a member some 7 or 8 years ago, rams in Brett's operation were purchased from a private stud.

"We were happy with the rams we were buying and the sheep we were breeding," recalls Brett. "At the time we were just looking for something that might do a little better so we decided to try one of Ashley's rams." "Twelve months later that ram we bought home was a standout in our ram mob, both he and his progeny had done so well and seemed really suited to our environment," Brett said.





Since then Brett has only used AMS rams in his Merino breeding program and contributes some significant genetic gain to the switch.

"Our wool clip has reduced from 21.3 to 20 micron over that time and the wool is so much more consistent with more ending up in the top line," says Brett. Likewise, the sheep themselves are more uniform and there are a lot less culls."

The reduction in micron alone will deliver Brett a permanent financial gain when it comes to selling his woolclip. Based on the last 10 years of Australian Wool Exchange average prices, Brett can expect each ewe to cut an additional \$1.25 worth of wool.

However, Brett has identified another outcome that the change in genetics has delivered.

"I've noticed the sheep are now consistently ³/₄ of a condition score better than they used to be without any other changes to the management system," Brett said. "The extra weight and fat the sheep carry may be one of the reasons why our lambing percentage has increased over the last few years."

AMS' long term commitment to their breeding objective through the use of robust data collection, the strategic use of ASBVs, and a good eye for visual characteristics, means commercial members such as Brett Whittington, are well on their way to improving the profitability of their Merino enterprise.

"Many ram breeders chase markets and the sheep change continuously," concludes Brett. "AMS have stayed true to their breeding objective of producing true dual purpose Merinos for many years and it has certainly paid off."



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AMS Wool Production Index

Over a 10 year period, selecting rams on AMS WP Index, the Hobbs can expect to achieve the following improvement in the traits of interest.

- 0.5 kg increase in clean fleece weight
- Maintain average micron
- 5% increase in fleece yield
- 10 N/KT increase in staple strength
- 2.0 Kg increase in bodyweight
- 20% improvement in the number of lambs weaned
- 30% improvement in worm resistance
- 5mm increase in eye muscle depth
- Maintain fat depth and coverage









