

Technology

Farrer White Suffolks constantly embraces the latest technology to improve the sheep at Farrer to better suit the changing market specifications and to improve educational outcomes of the students it services.

- **Genetics and Breeding**

- **Lambplan**

Farrer has been there since the start of this technology in regards to performance recording of terminal prime lamb sires. Farrer now selects and breeds using LEQ index, as meat eating quality is becoming increasingly important to consumers. The Lamb Eating Quality Index (LEQ index) is targeted at progressive terminal lamb producers interested in improving the meat eating quality (IMF & SF5) of their prime lambs while continuing to improve production in a balanced way including Birth Weight (BWT) and Worm Egg Count (WEC).

Farrer manages the flock to ensure that the ASBV's are of the highest accuracy possible. This ensure that both us and clients have the most faith possible in the figures that Farrer produces.

To manage the data generated by sheep genetics and Lambplan Farrer use [Pedigree Master](#). This computer management software program enable us to input /store / manage /print and the data required.

- **Artificial Insemination**

Farrer uses artificial insemination in an effort to maximize genetic progress and allow us better access to a diverse range of performance sires from within the White Suffolk breed and outside if, exceptional sires appear. Another advantage of artificial insemination is it allows us better genetic linkage within the White Suffolk breed. This helps us further improve the accuracies of our high quality Lambplan data.

Artificial Insemination is also a critical element in our constantly evolving biosecurity measures to ensure the integrity of Farrer White Suffolk disease status.

The AI program commenced in 1996 and occurs annually in March each year with Year 10 Animal Management class(s). The students select the potential sires, match sires to dams, program the sheep and provide assistance on the actual artificial insemination day. All 130 mature White Suffolk ewes and the 60 replacement 6 – 7 months old ewes are included in the program.

- **Embryo Transfer**

Used initially in 2001 to supply embryos to a client in Western Australia. Latest was program undertaken in cooperation with “Ashmore White Suffolks” in South Australia in 2016 as a teaching and learning initiative that was used by Year 12 2 Unit Agriculture students.

- **SuperWhites**

In 2005 Farrer was invited to become a member of the SuperWhites, when Prime Lamb Genetics (PLG) ceased to exist. This has proved to be a very wise development in the enhancement of the Farrer White Suffolk stud as it allow us to become involved with some of the most progressive White Suffolk breeders in the Australia.

Farrer latest entrant in the SuperWhite Programs;

Series 22 Farrer 160067 and Farrer 160068

Series 21 Farrer 150096 and Farrer 150194

Series 20 Farrer 140188 and Farrer 140137

- **Sheep CRC Information Nucleus Flock (INF)**

Farrer has supported the Sheep CRC Information Nucleus Flock (INF) by entering rams for genetics evaluation on the hard to measure eating quality traits.

Farrer latest entrant(s) in the INF Programs;

2016 Farrer 150096 and Farrer 150194

2015 Farrer 140019 and Farrer 140188

The advantage to Farrer of using sires closely linked or better used in the INF is that it increases the accuracy of the animals in our stud. This enable us to better select animals for the hard to measure meat eating traits namely LMY, IMF and SF5.

- **Genomics**

Hypotrichosis

When a DNA test was developed by South Australian Research and Development Institute (SARDI) for this genetic condition Farrer was the one of the first White Suffolks studs in Australia to undertake testing of all breeding females in 2011 in an effort to quickly determine the extent of the genetic condition and then eliminate from the stud.

All ewes testing positive as carriers of Hypotrichosis were culled in 2011. Farrer has retained ONLY those testing HrF negative or Hypotrichosis free. All sires now used are HrF tested free. Thus, all resulting progeny in the future should be free of Hypotrichosis.

Limited testing occurs on sires used by Farrer each year. Plus, any rams purchased by registered White Suffolk studs at the annual on property ram sale.

DNA Parentage Testing

In cooperation with the Sheep CRC in 2014, Farrer undertook a trial using the technology to DNA parentage approximately 20 lambs. This was a success as Farrer was able to verify the sire and dam of each lamb.

DNA Testing

Farrer started testing in 2011 when the technology become available. Initially testing started with 20 potential young sires and continues today. However, to obtain the greatest benefit in 2016, Farrer become the first White Suffolk flock in Australia to fully DNA test ALL breeding ewes to improve accuracy of the hard to measure traits in Lean Meat Yield, IMF and Shear Force.

Each year ALL replacement ewes will be tested to continue to improve our accuracy and linkage to the Resource flock. This will enable us to better select future breeding sires and female to be used in the stud.

The DNA testing is very important as Farrer is focusing on the LEQ index that includes these hard to measure meat eating traits. Thus, it is imperative to test for the components that are included in the breeding objective so progress is possible.

- **MateSel**

This is a brilliant program specifically designed for stud breeders to better manage the level co ancestry in their flock. It enable Farrer to better match individual to increase genetic gain and at the same time decrease the chances of breeding closely related individuals. Farrer was amongst the first to be given the opportunity to be trained use the program in 2016.

- **Sheep Management**

- **Worm Testing**

Farrer White Suffolks are been faecal testing through Veterinary Health Research (VHR) and in submitting them to Lambplan for the generation of Worm Egg Count (WEC) ASBV's since 2007. Worm resistance has been included in our previous breeding strategies through the Lamb2020 selection index. This has continued with the LEQ index, which is based on LAMBS2020 + meat eating traits (LMY, IMF & SF5).

Farrer places significant emphasis on worm resistance and favours those with high negative WEC. Farrer has produced numerous trait leaders for worm resistance over the years. Our emphasis on this important cost trait in production of prime lambs will continue.

Farrer purchased worm testing equipment in 2012 with a microscope and associated Whitlock McMaster worm egg counting chambers, which allows the students to undertake worm testing on the Farrer sheep to determine if internal parasite control is necessary.

- **Electronic Identification**

Farrer has used the technology in limited capacity over a number of years. However, as the technology has evolved we markedly increase our utilization especially in relation to the new Clipex sheep handler.

- **ClipEx Sheep Handler**

Farrer has recently developed a partnership with Clipex to expose our students to the latest technology that is available to industry. We have recently taken delivery of the Clipex Sheep handler, which is displaying to students the latest in animal handling technology.

- **Marketing**

- **Helmsman Selling System**

Farrer White Suffolks have used the Helmsman system since 1997. This method of purchasing livestock developed by Mr. Bruce Milne of "Helm View" Hereford stud, Coleraine Victoria has earned the name of the "Buyer Friendly" sale.

The Helmsman system also gives the opportunity for more students to be involved in running the sale under the guidance of our agents Garvin & Cousens, Tamworth. Students are the sale runners and the board writers on the sale day.

- **AuctionsPlus**

In 2016, Farrer conducted its first Helmsman sale run concurrently with the AuctionsPlus. This national system on-line system of marketing livestock allows Farrer to increase its exposure nationally. This has helped with ram sales into Queensland, Victoria, South Australia and Western Australia.

- **Independent Structural Assessment**

Since 2011 the Farrer White Suffolk Sale rams have been independently structurally assessed by Tim Lawrence of Advanced Livestock Services (0419147419). The system uses the Visual Sheep Scores developed by Australian Wool Innovation Limited (AWI) and Meat and Livestock Australia (MLA). Rams available for sale have scores listed in the sale catalogue.

The students structurally score all females each year to ensure the Farrer flock maintains a structurally sound breeding base. Any animals deemed inadequate will be culled.

- **RamSelect**

This program was developed by the Sheep CRC in 2016 to help commercial producers select potential rams. Used in the classroom Year 10 Animal Management course to educate students on how commercial breeders should be purchasing rams based on their own breeding objectives.