

PEDIGREE MATCHMAKER SETUP AND OPERATION

WHAT IS PEDIGREE MATCHMAKER

Pedigree Matchmaker is a system that allows the maternal pedigree of a lamb to be identified. It utilises electronic (RFID) tags in both ewes and lambs to collect the order in which animals pass an electronic tag reader. As lambs will naturally follow their mothers, over time an accurate association can be made which determines the dam pedigree of a lamb. This process relies on animals passing by the panel reader to a source of attraction such as a water trough, lick feeder and/or mineral supplement.



WHAT INFORMATION DOES IT PROVIDE

The data file collected from the panel reader is analysed to provide a list of ewes and their offspring (or vice versa) each identified through their electronic (RFID) tag number. This information can be used in any number of ways, for example:

- Identifying which ewes reared one, two or no lambs
- Comparing lamb survival for individual ewes (in conjunction with pregnancy scanning data)
- Calculating \$ return per head or per hectare when combined with a lamb weight
- Many others...

*How you use this information is critical.
Collecting data without making a
decision is a wasted opportunity.*



WHAT EQUIPMENT IS REQUIRED

The Pedigree Matchmaker system is comprised of the following equipment:

- Electronic tags (all ewes and lambs)
- Panel or portal reader. Recommend PedigreeScan panel from Sapien Technology; other panel readers with a data logger can be utilised however their power consumption is significantly higher requiring regular battery changing or solar power.
- Deep cycle battery
- Race / single file entrance; 1200mm long x 600mm wide, with wooden rails to mount the panel reader (directly mounting a panel reader on steel will result in a reduced read range)
- Portable yard panels or fencing to enclose the area
- Attractant eg water trough, lick feeder and/or mineral supplement
- Computer (for downloading and managing data)

TRAINING

It is important to ensure that all sheep are comfortable walking through the race to access the attractant. Exposing sheep to the equipment before the data collection period will significantly help the flow of animals past the reader providing better overall results.

Start training as early as possible, ideally before lambing begins but at least before lamb marking.

1. Place lick feeder, supplement or other attractant in position. Put the race in position without any electrical equipment.
2. Gradually begin to fence off the enclosed area over time; 2-3 weeks if possible. Also, put in place the electrical reading equipment shortly before completely restricting access to the single file race.
3. Once sheep are comfortably accessing the area through restricted openings, close off all access to the attractant other than the raceway. Sheep must now enter and exit via the race, allowing their RFID tags to be read.



DATA COLLECTION PROCESS

1. Ensure all ewes have electronic tags, ideally before lambing.
2. Record the EID number of any dry ewes (or remove from the mob) at marking to assist in determining the accuracy of the Pedigree Matchmaker process and when the data collection period can end.
3. As lambs follow their mothers more closely at a younger age, better results are achieved when data collection can begin immediately after lambs are tagged. The data collection process should begin as soon as all lambs have been electronically tagged, typically after marking.
4. Ensure panel reader and electrical equipment is operating correctly, especially after the first day of operation. Check system is reading and storing tag numbers, date and time.
5. Change battery as often as required.
6. Download data regularly to check progress (weekly).
7. Continue to record data until sufficient information is collected, typically this may take 3-6 weeks.
8. Data should be analysed by an accredited Pedigree Matchmaker analyst or using an appropriate software package.



LIMITATIONS

Trials have shown that Pedigree Matchmaker can achieve similar (or better) rates of accuracy in ‘mothering up’ ewes and lambs to visual systems currently used by many studs. Typically, between 80%-95% of lambs will be matched to their dam.

Pedigree Matchmaker can provide a low cost, low labour and low risk of human error method of determining the dam pedigree of lambs. However, it will not identify mismothering where a ewe rears a lamb not her own – only DNA testing can identify the true parentage of these lambs.

FURTHER INFORMATION

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This project is supported by AgriPartner Consulting through funding from the Australian Government's National Landcare Programme and the South Australian Murray-Darling Basin Natural Resources Management Board.