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EMBRYO TRANSFER – Consent Form

This form of Artificial Breeding has allowed many sheep breeders to make significant advances in their flocks with regards to numbers and genetics.

In simple terms, the process involves treating **donor** ewes with hormones to substantially increase the number of eggs they produce at a particular time, fertilizing these eggs and allowing them to go through initial growth in the donor ewe, then harvesting these embryos and transferring them to **recipient** ewes that have been synchronized to the same heat pattern as that of the donor ewe.

The process has a high degree of technical input and is comprised of a series of events and procedures that all require successful completion if a satisfactory outcome is to be achieved. Appropriate management and attention to detail is a critical ingredient.

DONORS

- Body condition score is important. 2+ is ideal. Overfat ewes continually achieve below average results
- Maiden ewes are less consistent in their response compared to adult ewes. Expect a 25% drop in results if using maiden ewes. Maiden ewes should be at least 45kg.
- The ewes should be in short wool. This assists in maintaining cleanliness at the time of surgery, facilitates the administration of hormones and helps increase appetite prior to treatment.
- Time of year is not critical especially in the Merino breed. Overall though, better responses occur in the true breeding season. The hottest months are also avoided due to embryonic resorption.
- A high protein diet is **essential** just prior to the program. This is most critical for embryo quality between insemination and embryo harvest.
During this period the ewes should be fed entirely on a high protein diet ad lib, with minimum disturbance and stress.
- Donor and recipient ewes must have had lambs weaned off at least 2 months prior to a program.

RECIPIENTS

- The recipient ewes are going to do the majority of the work with the lamb. They are going to carry the lamb during pregnancy for 5 months and then feed the lamb through to weaning.
- They can be of any breed. 6 tooth experienced ewes with a sound breeding and rearing record with 2 functional teats is the ideal. Merinos are quite suitable as normally only one embryo is transferred to each ewe.
- Normally 7 recipients are programmed for each donor ewe.

SEMEN

- Fresh semen gives more consistent results, and donor rams should be fertility tested and cleaned out leading up to the program. Ideally, they should be in the AI centre being routinely collected.
- If frozen semen is to be used, it should be obtained well in advance to avoid any last minute rushes.

FACILITIES

- Embryo transfer in sheep is a surgical procedure. Every effort is made by the veterinary surgeon at the time of flushing to reduce post surgical adhesions. Providing a clean, dust free environment will assist this effort.
- General facilities required are a functional shearing shed or equivalent, with a generous floor area, a couple of sturdy kitchen tables, a good supply of clean water and reliable power.
- Have sufficient sequential tags available for the recipients. Double tagging is advised.
- Labour requirements are best met by 2 people, including one person who can handle a hand piece. Sheep handling including loading / unloading cradles is the responsibility of the owner.

RESULTS

- The basic program entails sponging in the donors and recipients, treating the donors with twice daily injections of hormones for 4 days prior to removing the sponges, artificially inseminating the donors, and harvesting the embryos 6 days later.
- A detailed program with dosages and timing will be supplied.
- The range of results achieved from ewes is from 0 to 50 embryos, with the average being 8.
- 1/3 of donors will give excellent results, 1/3 will give average results, and 1/3 will give poor results.
- Not all embryos are viable, with about 80% being transferable.
- Not all embryos will take, with about 70% establishing a pregnancy in the recipient ewe.

RISKS

- A general anaesthetic is used on the donor ewes which is accompanied by a low level of risk, which could lead to the death of the ewe.
- Embryo transfer is a surgical procedure, which can lead to scar tissue formation at the surgical site. This scar tissue may result in infertility in a small percentage of donor animals.
- No guarantees concerning the outcome of the program are implied or given.

EMBRYO TRANSFER CONSENT

- I consent to the treatment and surgery of the donor and recipient animals.

Signed: _____

Date: _____