

SIL eNote 3: Pregnancy Scan Tips

May 2009

If you pregnancy scan the ewes in your breeding flock, SIL recommends recording as much as you can from the results in order to improve your genetic evaluations.

Here are some quick tips and reminders on what you can do when pregnancy scanning to maximise data quality for all goal trait groups especially Reproduction and Survival.

- A) Record either 'number of lambs scanned' or 'barren' for all ewes that were put to the ram and scanned
- B) If ewes have been mated to follow up rams still record their pregnancy scanning results – i.e. barren, or number of lambs scanned
- C) If you cull some ewes because they are barren, ensure you record a DFate of B against them and the appropriate ewe exit code for Longevity (new goal trait group coming soon!)
- D) If you want to use pregnancy scanning results in your genetic evaluation for Reproduction tell your bureau
- E) If you want to use pregnancy scanning results to help fill in blanks in your lambing String records tell your bureau
- F) If you are using the DNA based Shepherd method for parentage identification, pregnancy scanning results must be recorded on SIL

More details about the quick tips and reminders have been expanded upon below:

A) Record either 'number of lambs scanned' or 'barren' for all ewes that were put to the ram and scanned

1. Pregnancy Scan results are very important for management reasons but are also important as a back up in case NLB is not recorded for various reasons at birth
2. Barren entries (where pregnancy scan = 0) are very important for reproduction evaluations. If barren ewes are not recorded for each family (ram) this will bias the evaluations and give some families an unfair advantage
3. **Ensure ewes that are not pregnancy scanned due to no mating marks, also have a DFate of "barren" recorded**
4. It is important to differentiate ewes not mated or presented to the ram in your breeding flock from those that were given the chance to be mated by being presented to the rams but which did not get in lamb. Their lambing string can be affected and NLB calculations will be biased by not identifying barren ewes that did have the chance to be mated
 - This commonly occurs with hoggets if you are hogget mating some and not others.
 - Hoggets not mated (presented to a ram) will have a lambing string with a '.' (full stop) at the start e.g. **.2123**, and those mated (presented to a ram) but barren will have a 'zero' at the start, e.g. **02123**

B) If ewes have been mated to follow up rams record their pregnancy scanning results – i.e. barren, or number of lambs scanned

1. Because reproduction has a low heritability, family information is very important. The more 'pregnancy records' (i.e. number of lambs scanned or 'barren') that can be recorded the more accurate breeding values will be
 - Reproduction breeding values for rams are calculated using the records of their daughters and half sisters – what type of ram a ewe is mated to does not matter, it is the result of the mating that is essential for the Reproduction evaluation – the more records the better

C) If you cull some ewes because they are barren, ensure you record a DFate of B against them and the appropriate ewe exit code for Stayability (new goal trait group coming soon!)

1. Some ewes may not be culled from your flock because they are barren so we can not automatically assume they will have a ewe exit code of Barren
2. The soon to be released goal trait group of ewe longevity/stayability/ewe replacement rate (we have yet to finalise a name) will have ewe exit codes to record why a ewe has left the flock. This will be released at the SIL Sheep Genetics Day on 25th June, if you want information on the codes before then please contact Georgie at Georgie.Walker@sheepimprovement.co.nz or 06 324 0372

D) If you want to use pregnancy scanning results in your genetic evaluation for Reproduction tell your bureau

1. Pregnancy Scan results can be used to provide information when lambing results are missing
2. If you wish to use your pregnancy scan data ensure you tell your bureau before they run your next genetic evaluation
3. Across Flock groups should have a group rule for their genetic evaluations that defines whether, and how, pregnancy scanning data is used.
 - If the rule is to use pregnancy scanning data and some flocks do not pregnancy scan, the rule will still be eligible for the evaluation

E) If you want to use pregnancy scanning results to help fill in some blanks in your lambing string records tell your bureau

1. For various reasons some ewes may not have lambs assigned to them at birth and have a missing value indicated by a '.' (full stop) or "zero" in their lambing string. By using their pregnancy scanning (PS) results to fill in such blanks your ewes may receive more complete lambing strings, and NLB BVs will more accurately estimated
2. There are 3 options to use for 'lambing strings'
 - NLB records only used – from lambs assigned to dams (based on pedigree)
 - NLB records used as primary determinant and PS results used if there is no NLB record against a ewe in the flock, ie PS data fills in for missing data
 - PS results used as primary determinant and NLB records used if there is no PS record for a ewe, ie NLB pedigree records fills in for missing data
3. Let your bureau know if you wish to use the 2nd and 3rd options above

F) If you are using the DNA based Shepherd method for parentage identification, pregnancy scanning results must be recorded on SIL

1. The Shepherd method uses pregnancy scan results and DNA (blood samples) from lambs, ewes and rams to assign parentage to lambs

Upcoming SIL eNote topics

- Ewe replacement rate – why a ewe leaves the breeding flock
- Lambing

Notice board

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- SIL Sheep Genetics Day 25th June, 2009 - Programme and Registration form on the SIL website
- SIL newsletters can be received by email, email silhelp@sheepimprovement.co.nz to sign up
- Past SIL eNotes can be found on the SIL website under Technical Information

SIL eNotes are designed to give you quick tips and reminders on how to get the best out of performance recording and genetic evaluations with SIL. For further information or if you have any questions refer to our SIL website or contact our SIL helpline:

Website: www.sil.co.nz , Phone: SILhelp – 0800 silhelp (0800 745 435)

Email: silhelp@sheepimprovement.co.nz

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