

FlockFinder

The ram buyers tool in *eSearch* for **SIL-ACE**

User Guide

Purpose of FlockFinder tool

This tool is designed to locate ram breeding flocks that have performance information for traits you want to improve in your flock. Buying rams is the main route to genetic improvement in commercial sheep flocks. By recording information for the traits listed, these flocks can provide you with animals of superior genetic merit for traits you are focused on.

There is no such thing as the perfect sheep! In fact, few sheep among the millions on SIL are exceptional across all traits of commercial importance. However, many have superior merit for different combinations of traits. **FlockFinder** scans results of the large-scale **SIL-ACE** genetic evaluation to locate flocks with animals that can address your genetic improvement goals.

Use this web-based tool to get a list of flocks you can consider to buy rams from.

FlockFinder on the Web

You can find FlockFinder on the SIL website (www.sil.co.nz) under “Buying Rams”.

How to use it

1. **Select the sheep type** you are looking for. Dual Purpose rams to breed replacement ewes and lambs for carcass production or Terminal Sire rams from which all progeny are destined for carcass production.

The trick to using **FlockFinder** is to **start with few traits (1 to 2) as primary traits** – these are what your main focus is on. And choose the lowest selection pressure.

2. **Select one to two “primary” traits** – the things you are most interested in improving.
Once you have done your initial search, you can return and refine it by altering, adding or deleting criteria to tighten up or loosen the constraints on your search. An explanation of FlockFinder traits is provided later in this document.
3. **Select the Birth year** for the age of ram you are looking for. The search is restricted to animals in years that will supply ram lambs or rising 2-tooth rams as of today’s date.
4. **Select the Region** to see fewer flocks.
5. **Select the genotype** (related to **breed**) you are looking for. Most often, you will have some idea of what breed type (genotype) you want or do not want.
This could be complex to specify so SIL does this two ways. “**Genetic Vision**” refers to “where a flock is at” or what general type of sheep it is producing, using one simple name. Often these are existing breed names but sometimes they are new breeds. For a more detailed specification choose “**Breeds in pedigree**” and specify up to 3 single breeds that are to be in, or not in, the pedigree of animals the tool finds.
6. **Choose the number of** (flock) **results** listed on each page of the results.
7. **Hit the Start Search** button (at bottom of screen) to start the search.

NB: For a Quick Reference Guide print out page 6 of this document

continued....

Interpreting the results

The large database searched is the **SIL-ACE**, large scale, across flock and breed evaluation that SIL updates regularly.

- Flocks not participating in **SIL-ACE** will not be listed.
- **SIL-ACE** flocks are listed if they have been collecting sufficient performance data for traits you select as criteria. If a flock you expect to see is not there, this may mean it is not in **SIL-ACE** or that it does not have a minimum amount of data required for one or more of the traits you selected.
- Flocks with less than a minimum number of rams found are not listed.
- Flocks listed in the results are initially ordered based on how many rams are found in the year selected that are listed as “alive” on SIL. The number available for sale are likely to be significantly less.
- You can reorder the results list by clicking on column titles in the black bar at the top of each page.
- You can jump to other pages using the Next or Previous buttons at the bottom of the window or by clicking on page numbers in the black bar at the bottom of the flock results list.
- For each flock found, a list is provided of traits for which they have collected sufficient data in recent years to provide useful genetic information on sale rams. If it is more than **3 years** since a flock collected data for a trait and put this on SIL, that trait will not be listed for the flock. In some cases it may be because minimum requirements for data “completeness” are not met (e.g. many flocks have incomplete Lamb Survival data).

Refining your search

- After looking at results of your search, you can return to the Search page using the button at bottom left of the window – **don't use “go to previous page” in Internet Explorer as that loses your search criteria!**
- The basic rule is that if you relax or remove criteria you will find more animals and possibly more flocks, while if you tighten or add criteria the opposite occurs.

You have several options.

- **Increasing selection pressure** on a primary trait(s). This will favour flocks with highly rated animals for that trait(s) on **SIL-ACE**, **but fewer animals and maybe fewer flocks will be found**,
 - **Avoiding extreme merit.** You can avoid low merit OR high merit extremes OR both. You can do this as well as having a trait as a primary trait, **but fewer animals will be found**,
 - Set criteria for more traits than you previously had (**will find fewer animals**) OR you can remove criteria from traits so you have fewer constraints on the search (**will find more animals**),
 - Alter other criteria to suit.
- **SIL recommends you always start with few criteria and the lowest selection pressure.**

continued...

Getting flock owner contact details

- In the list of flocks on the results page, **click on the SIL flock number** (to left of Flock name) to open a window with these details. **Click again to hide** the contact information.
- At present, data access rights prevent you from producing a single list with contact details for all flocks listed in the results.

What FlockFinder is NOT!

FlockFinder does not produce lists of individual animals.

FlockFinder does not rate flocks for genetic merit directly. Its focus is on locating flocks that can provide ram buyers with genetic information for traits they want to improve in their commercial sheep flocks.

FlockFinder does not list all flocks with rams for sale, or all flocks recording traits of interest. To be listed in FlockFinder results, flocks must participate in **SIL-ACE**, and must measure traits specified by the user. All **SIL-ACE** traits that they record are listed for each flock.

Flocks are not listed if the search finds only a few animals. When selection pressure is increased for more traits, some flocks will drop out for this reason.

Some flocks may record and evaluate traits not in **SIL-ACE**. You can ask about this when you contact a flock owner. As demand requires it, SIL aims to add more traits to FlockFinder.

Being listed on FlockFinder does not guarantee that a flock has rams available for purchase. The tool is purely designed to provide initial contact details for flocks that may be able to supply rams.

Feedback

FlockFinder is produced as an industry good activity by Beef + Lamb New Zealand. We value your feedback. You can send an email to silhelp@sil.co.nz or telephone 0800-silhelp (0800-745-435).

About Sheep Improvement Ltd (SIL)

NB: Sheep Improvement Ltd is the national performance recording and genetic evaluation system, and is an industry service provided by Beef + Lamb New Zealand. It is funded by fees from breeder's using the system and from levy money.

About SIL-ACE

SIL-ACE is an across-flock, across-breed genetic evaluation that SIL performs at regular intervals. Trait leader lists are placed on the **SIL-ACE** web page of the SIL website (www.sil.co.nz). Information about the **SIL-ACE** evaluation can be found at that location.

continued....

FlockFinder Traits

Descriptions of each trait are given in a list below. Please note that:

- Few, if any, flocks collect information on all traits.
- Where flocks collect information but SIL considers that there is insufficient “complete” data, FlockFinder will assess that flock as “not” collecting it – Lamb Survival falls into this category for some flocks.
- For Terminal Sire (TS) sheep, fewer traits affect farm profit compared to Dual Purpose (DP) sheep. On commercial farms all the progeny of TS rams go to carcass production in contrast to DP rams where some female progeny are kept as ewe flock replacements with males and surplus females going to carcass production.

Actual Performance versus Genetic Merit

FlockFinder uses the results of the **SIL-ACE** evaluation when searching for animals. These results are our “best-bet” estimates of genetic merit. The **SIL-ACE** evaluation removes known biases due to such things as date of birth, birth rank or age of dam, considers the performance of relatives, and through use of link sires it adjusts for non-genetic farm effects. These are considered to be the most accurate estimates of genetic merit that can be got from the information available, for the traits concerned.

SIL-ACE does not rate animals for ALL traits farmers may be interested in, but it does cover virtually all of the major economic traits – those that influence farm profit. Other traits, such as physical soundness, should be addressed by the ram buyer and/or ram seller.

Number of Lambs Born

This is equivalent to ewe litter size or lambing percentage. Note that this includes lambs that do not survive. Lamb survival is another trait you can choose. This trait is not used when purchasing TS rams since no daughters will be kept as replacements.

Lamb Survival

This trait covers all lamb losses up to weaning. In combination with Number of Lambs Born it yields number of Lambs Weaned. Lamb survival is rated differently for TS and DP sheep. In TS sheep we look only at “lamb vigor” while in DP sheep we combine this with “ewe mothering ability” to rate animals for Lamb Survival.

Lamb Growth

This trait rates TS and DP animals for pre-weaning growth and post-weaning growth. The end point is assumed to be when an animal goes for carcass production. For DP sheep we add in one further component, “ewe milking ability”, which is the contribution a ewe makes to the weaning weight of her lambs.

Adult Ewe Size

In some flocks excessive ewe size is viewed unfavorably. Unfortunately this trait is strongly related, genetically, to Lamb Growth Rate. Many of the genes that make lambs big at various ages make them big as adults. SIL recommends that you initially select either Lamb Growth or Adult Ewe Size, but not both, as primary traits. Selecting both severely restricts the number of animals found. SIL penalizes above average Adult Size and rewards below average Adult Size.

continued....

Meat – Lean Yield

Effectively Lean Yield is rating sheep for the proportion of Lean in the shoulder, loin and hindquarter at the same carcass weight as other sheep. Carcass weight is part of the Lamb Growth trait.

SIL began rating sheep for Lean Yield (proportions) in May 2010. Previously they were rated for LEAN weight in the carcass.

Meat – Fatness

This can be thought of as the “general Fat Yield”. So at the same carcass weight as other sheep, this tells us if the sheep have above or below average percentage of carcass fat. Weight of fat is a function of this and carcass weight. Carcass weight is part of the Lamb Growth trait.

SIL began rating sheep for fat using this definition in May 2010. Previously they were rated for fat weight rather than fat percentage.

TS sheep are rated for fatness where “less is better”. DP sheep are not rated for fatness directly, but a higher lean yield is quite likely to be associated with lower fat yield or percentage.

Wool Production

This is fleece weight. It is not considered for TS sheep. SIL rates higher fleece weights as better (and lower fleece weights as worse). The assumption is that low fleece weights give poor returns relative to the costs wool incur. This trait does not consider fiber diameter or fleece quality attributes.

Resistance to Internal Parasites

The underlying trait SIL assesses is Faecal Egg Counts (FEC). This assumes lower FEC is better, and higher FEC is worse.

This trait is not **Resilience** to Internal parasites. Currently **SIL-ACE** does not assess Resilience. A comparison of Resistance with Resilience is made in a document on the SIL website (www.sil.co.nz) under Technical Information > Technical Notes > Health Traits > Internal Parasites >, which is titled “Selection to reduce drench requirements”.

SIL considers that selection for low FEC simultaneously with selection for increased production (growth, wool, reproduction) overcomes the concern that some people have that selecting low FEC animals will adversely impact on productivity.

Tolerance to Facial Eczema (FE)

This rates animals for their ability to tolerate FE spores on the pasture without productivity being affected. Since this trait is a major game breaker on some farms, it is likely to be a “stop-go” gate for ram purchases. Buyers seeking FE Tolerant rams to breed this trait into their ewe flock are advised to check the “Avoid Low Merit” box for this trait to only find the flocks that are collecting information on this trait.

SIL scores flocks from 1 to 5 gold stars for this trait. More gold stars indicate a flock has animals that can tolerate higher FE challenges.

Quick Reference Guide on next page

Quick Reference Guide

FlockFinder for ram buyers – part of *eSearch* for SIL-ACE

Found at <http://www.sil.co.nz> under “Buying Rams”.

1. Select either Dual Purpose (rams to breed ewe replacements) or Terminal Sire (all progeny for carcass production) for the “usage” rams are to be put to
2. **Select only 1 or 2 traits as “primary”** - those you are most interested in. Traits are described in detail on the preceding pages of this document.
3. Choose ram birth year for the age of ram(s) you want
4. Select the region you want to search in
5. To restrict the breed or genotype of animals found, choose either “Genetic Vision”, a broad specification of the flock breeding goal, or “Breeds in pedigree” to allow a more detailed specification based on the mix of breeds in an animal’s background
6. Choose whether you want 10 or up to 50 flocks per page in the results
7. Have a look at your results
8. To refine your search criteria as required, return to the Search page (button at bottom left of window – **don’t use “go to previous page” in Internet Explorer as that wipes your criteria settings!**).

You have several options.

- a. **Increasing selection pressure** on primary trait(s). This will favour flocks with highly rated animals for that trait(s) on SIL-ACE, **but fewer animals and maybe fewer flocks will be found**,
 - b. **Avoiding extreme merit**. You can avoid low merit OR high merit extremes OR both. You can do this as well as having a trait as a primary trait, **but fewer animals will be found**
 - c. Set criteria for more traits than you previously had (**will find fewer animals**) OR you can remove criteria from traits so you have fewer constraints on the search (**will find more animals**),
 - d. Alter other criteria to suit.
9. You can print a list of the flocks your search found. At present, data access rights prevent you from producing one list with contact details for all flocks listed in the search results
 10. You can get contact details for flocks you want to follow up with by clicking on their SIL flock number (to the left of the flock name) on the results page(s). Click again to hide these details.

A fuller description of FlockFinder and how to use it is provided on previous pages of this document