



Guide to RamFinder

RamFinder is a search tool that finds either sires or young animals (potentially for sale) that meet criteria set by the user based on the large across flock SIL-ACE evaluation. The SIL-ACE indexes and breeding values are updated regularly – but for flocks and animals to be included, a flock must have elected to participate in SIL-ACE and be recording traits that are specified in the search criteria

RamFinder is primarily aimed at assisting ram breeders identify potential outside sires that may add value to their breeding objective. Commercial farmers can also use the tool to find animals or sire lines that match their breeding objectives or to update information on rams they have previously purchased. Sheep farming systems and challenges are diverse across New Zealand and different breeders/farmers will have different criteria for rams. For example some areas experience disease challenges such as facial eczema and to others this is not important. RamFinder allows individuals to tailor selection criteria to meet their needs.

As more data is collected over time on the performance of progeny or relatives in participating flocks, the SIL-ACE indexes and breeding values for individual animals are updated.

There are 3 options for using RamFinder

1. Search all SIL-ACE connected flocks using prescribed criteria.
2. Find a particular flock and report the indexes and traits you prescribe for rams in that flock.
3. Find a particular animal using SIL flock number, tag and birth year

To find a SIL flock number

Use BreederFinder found on the SIL website (www.sil.co.nz) to search all SIL recorded flocks selecting for breed, area, a flock name, surname or a combination of factors. It will report the details on owner, address and flock numbers for flocks that match your criteria.

To check if a flock participates in SIL-ACE and for which traits it is connected

On the SIL website, click on SIL-ACE then Sire Leader Lists. This brings up a list of available SIL-ACE reports. Scroll down to the section below where there are a number of supporting documents.

Click on “Participants and Flock Connectedness Table”. This lists all flocks and the traits for which they are connected. When you set up search criteria it will only find flocks that are connected for ALL the traits you included in the search. Goal Traits include production traits such as Reproduction, Survival, Lamb Growth, Adult Size, Meat Yield, and Wool as well as health traits such as WormFec (parasite resistance) and Facial Eczema Tolerance.

Benchmark Results

A percentile band table can also be viewed or downloaded from this section. This is based on flocks in SIL-ACE and lists the percentile bands for indexes, sub-indexes and breeding values. Note, it is easier to be good at a few things than many things. The more traits in the search criteria, the fewer animals that it will find that are good at all of them.

RamFinder Search instructions

Step 1. Choose the overall objective – Dual Purpose or Terminal Sire

SIL-ACE *eSearch* RamFinder

Genetic Merit, Trait Criteria [see note below]

Usage Terminal Sire Overall Show ACE Indexes ☒ Show eBVs ☐

Choose either Dual Purpose or Terminal Sire for “usage” (sheep type).

Choose Overall or Production. Production indexes exclude health traits (eg WormFEC or FE tolerance). If you want all recorded traits – choose Dual Purpose Overall, if you want production but are not interested in health traits choose Dual Purpose Production. Click “**update**” when you have finalised your choices.

Next, choose the indexes and breeding values (eBVs) to be used and displayed for individuals. We suggest you **start with indexes** and after the search finds animals, **add in eBVs** to get that level of information.

Step 2. Choose the Index components and information to be presented

Choose component goal traits you want in the Index by ticking the “use” box. If there is a trait you are interested in but don’t want it included in the combined index e.g. DPO or TSO tick the “show” box only so it will not be in the combined index but will be shown in the result. You might choose this option if you want to focus on a couple of traits to improve but still check if the other traits were acceptable e.g. use and show Growth and Meat but only show Survival.

Genetic Merit, Trait Criteria [see note below]

Usage Terminal Sire Overall Show ACE Indexes ☒ Show eBVs ☐

SIL Goal Traits	Abbrev	Minimum	Maximum	Lo/Hi range	Average	Show	Use
SIL TS Overall	SIL_TSOc	700		294 to 1077	686	☒	☒
SIL TS Survival	SIL_TSS			-118 to 206	44	☒	☐
SIL TS Lamb Growth	SIL_TSG	500		264 to 916	590	☒	☒
SIL TS Meat Yield	SIL_TSM	100		-81 to 227	73	☒	☒
SIL TS WormFEC	SIL_TSF			-111 to 159	24	☐	☐

Historic ACE Indexes

Abbrev	Minimum	Maximum	Lo/Hi range	Average	Show
ACE_TS			294 to 1077	686	☐

Click this button to recalculate the ranges and averages above, and sort option below Update

Example 1.

The TS Overall Index will include
TS lamb growth (TSG)
TS meat yield (TSM)
TS survival (TSS) will be shown
but not used in the combined
index.

Animals shown will be above
500c for TSG, 100c for TSM and
above 700c for the TS Overall
Index

You do not need to specify minimum or maximums for all traits. You may choose to set them for the ones that are most important to you. The Lo/Hi ranges indicate the top 10th percentile value and bottom 10th percentile value for the evaluation. If you are interested in animals above the 10th percentile leave the maximum blank.

You can use the maximum criteria to avoid animals that are extreme for a trait - or if you are looking for an individual within a specific range – e.g. a maintainer for reproduction if you already are at your desired scanning percentage.

Step 3. Choose which animals are reported and in what order

'Sort results by' – By default results are sorted on combined index from high to low. There is an option to sort low to high if required. Results can also be resorted later. Choose which animals (males or females) you want listed by entering more details.

- A) **'Query type'** - To search all SIL-ACE flocks the query type needs to be set to "Animals which match the following criteria". If there are specific animals you wish to look up you can set the Query Type option to "A specific animal by ID". The required format is Flock.Tag/last 2 digits of Birth Year. For example 8999.3569/15 is a ram from flock 8999 with tag 3569 and birth year is 2015.
- B) **Animal** - Young rams can be selected by entering an appropriate Animal Birth Year.
- C) **Sex** – most users are interested in searching males but it is also possible to search for females.
- D) **Status** – most users are interested in "Alive" animals but RamFinder can also be used to look up updated values on historical sires based on progeny performance by setting this to blank.
- E) **Region** – the area the ram is located may be of importance to some users and can be selected here.
- F) **Other** – boxes that search for rams with semen available or recorded as available for sale can be ticked here. As a general rule it is suggested to leave these blank initially and add this to the refined search later.
- G) **Progeny** – Rams that have sired progeny can be selected by setting Progeny Birth Year range to match years you are interested in. The default setting selects rams that have produced progeny in the previous 3 years. If a ram you are interested in is likely to be outside this range then adjust the years accordingly. **For young animals without progeny** ensure Progeny Birth Years is left **blank** (click on down arrow and click on blank space in choices).

Sort results by	SIL TS Overall	ordered	High to Low
General Criteria			
Query Type	Animals which match the following criteria		
Animal	Birth Year	to	Sex Male Status Alive
Region			
Other	Available for sale ☐ Semen available ☐		
Progeny	Birth Year 2011 to 2014		
Breed [see note below]			
Genotype Specification	Genetic Vision		
Genetic Vision	Any		

Example 2

This example will report on sires with progeny born in 2011 -2014 period that are currently alive.

Step 5. Choose Breed

Genetic Vision (GV) refers to the overall breeding goal of the flock in terms of breed type – e.g. Suffolk. There may be some individuals with a small proportion of other breeds in their pedigree but GV indicates the main breed focus for a flock.

The other option for Genotype Specification is too specify the breeds you may want included in the mix. You can specify minimum proportions of a breed if desired. You could choose this option and in breed proportion range set it to 100% Suffolk to constrain the search to just purebred animals. If you were interested in a mixed breed you may put in some criteria such as minimum of 50% Suffolk and 20% Texel (see example).

Breed		[see note below]	
Genotype Specification	Breeds in Pedigree ▼		
1st Breed	Suffolk ▼	50% ▼	to ▼
2nd Breed	Texel ▼	20% ▼	to ▼

If you want animals of any breed or mix, set the Genetic vision box to **“Any”**. ***This is important as the search will fail if no selection is made for Genetic Vision or breed (i.e. if you leave the field blank).*** To restrict to a particular breed click on the down arrow and choose the relevant name.

Breed		[see note below]	
Genotype Specification	Genetic Vision ▼		
Genetic Vision	Any ▼		

Step 7. Initiating the Search

When you have entered all your search criteria – click the green “Start Search” button at the bottom left of the screen. A list of animals will be returned that match the criteria you have set. You can do multiple searches and fine tune the search once you have it returning the required animals. Use the green “Return to Search” button to return to the main screens to adjust the criteria.

NO RESULTS?

If you get a message that no animals meet the criteria – use the blue “return to search” button and review the criteria. Prioritise the most important factors, remove or reduce threshold values on others, press the UPDATE button and rerun the search.

A message saying the “search timed out” means that too many animals were found that met your criteria and you need to narrow the search by returning to the previous window and refining the criteria.

It is better to start with a broad search approach and fine tune the criteria once you have it finding the right type of animals.

Step 8. View results

The example below is of a Terminal Sire search with a combined Index based on TSG (Lamb Growth) and TSM (Meat Yield) with the TSS (Survival) shown but not included in the index.

Any words or numbers underlined in the table of results can be clicked with the mouse to bring up more information.

- Clicking the flock number brings up the flock name and owner contact details.
- Clicking on the individual birth tag will bring up a more detailed page of results with pedigree, current owner, index and BV information (if selected) and a visual representation relative to SIL-ACE percentile merit for an individual (see example 3 below).
- Clicking on the header titles will sort the information based on that column.

SIL-ACE *eSearch* RamFinder

Terminal Sire

<u>Flock</u>	<u>BTag</u>	<u>Birth Yr</u>	<u>Sex</u>	<u>TSOc</u>	<u>TSS</u>	<u>TSG</u>	<u>TSM</u>	<u>Sire</u>	<u>Dam</u>	<u>Breed1</u>	<u>Breed2</u>
<u>2747</u>	<u>416/12</u>	2012	R	1659	137	1308	351	712/11	170/09	Suff 43%	Texel 38%
<u>4880</u>	<u>60058/12</u>	2012	R	1658	91	1274	385	301/10	51932/09	Texel 43%	Suff 28%
<u>2747</u>	<u>4/10</u>	2010	R	1546	238	1241	305	731/09	191/08	Texel 35%	Suff 35%
<u>2747</u>	<u>712/11</u>	2011	R	1501	207	1142	360	4/10	8/10	Texel 40%	Suff 37%
<u>2595</u>	<u>347/10</u>	2010	R	1469	136	1219	250	213/09	196/08	Suff 70%	Texel 30%
<u>2747</u>	<u>328/12</u>	2012	R	1407	235	1124	283	712/11	390/09	Texel 46%	Suff 31%
<u>827</u>	<u>83/10</u>	2010	R	1406	31	1191	214	304/08	121/08	Suff 95%	Texel 5%
<u>2747</u>	<u>37/09</u>	2009	R	1403	-30	1164	239	462/08	618/06	Texel 40%	Suff 39%
<u>2747</u>	<u>218/11</u>	2011	R	1400	125	1043	357	301/10	109/08	Suff 37%	Texel 34%
<u>2595</u>	<u>385/12</u>	2012	R	1393	117	1151	243	93/11	91/10	Suff 63%	Texel 32%

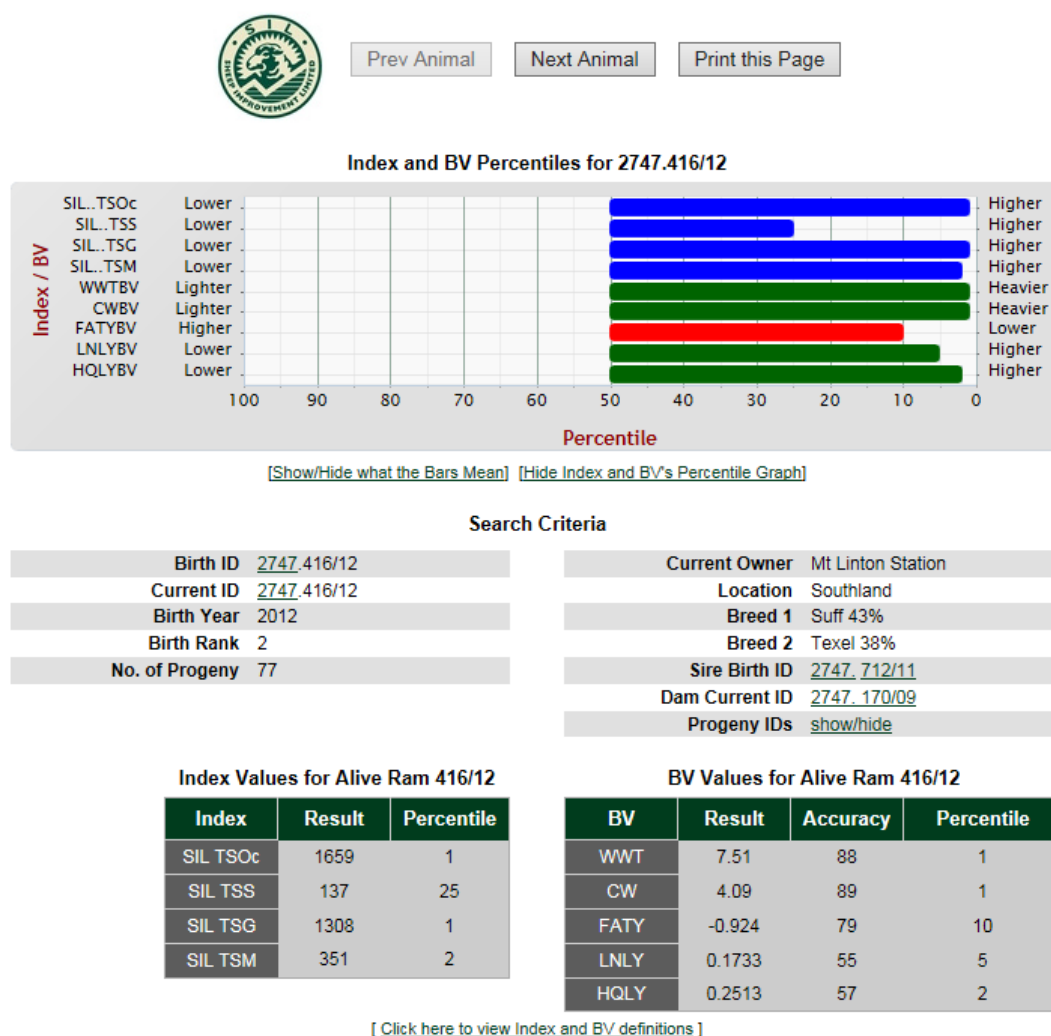
Example 3. Graphic of individual ram screen

After clicking on the individual birth tag, the screen shows;

- a report of the Indexes and eBVs as requested in the original search specification
- a graphic representation of the performance level (percentile band) for each component goal trait

In this example the ram 2747.416/12 was in the top 5% for Terminal Sire Overall Index based on TSM (Terminal Sire growth) and TSM (Terminal Sire Meat). He was in the top 25th percentile for TSS (Terminal Survival) and in the top 10th percentile for lower FATYBV (Fat Yield).

The screen also shows the current owner and more details can be revealed by clicking on any underlined information.



Accuracies for displayed traits are shown. For young animals with no progeny, values are a prediction based on their own performance and that of relatives. Accuracy levels are generally similar within an age group for younger animals in a particular flock. Accuracies increase with more measured records on progeny. Ram 2747.416/12 was a sire with 77 progeny which gives very accurate BVs for growth.

Again, clicking on any underlined words and numbers will reveal additional information.

Part 2; Find a particular flock and report the indexes and traits you prescribe for rams in that flock.

In the “Flock and Parentage Criteria” you can type in up to 3 flocks of interest and rams will be listed based on your selection criteria as before. Occasionally selection lists are dominated by one or two flocks for a given selection criteria. To focus your search for rams from flocks other than the dominant flocks, or a flock you would like to avoid, you can type in up to 3 flocks to be excluded in the search (example below).

Flock and Parentage Criteria			
SIL Flock Number (e.g 1234)	Not ☒	2747	Not ☐
Sire (e.g 1234.5678/09)	Not ☐		Not ☐
Dam (e.g 1234.5678/09)	Not ☐		Not ☐

It is also possible to search for rams from specific sires or dams by typing in their SIL format ID (Flock.Tag/last 2 digits of birth year)

Part 3; Find a particular animal using SIL flock number, tag and birth year

To find a particular animal e.g. one you own and you would like updated breeding values;

- 1) Select usage (Terminal Sire or Dual Purpose)
- 2) Select the information you would like displayed
- 3) Change the “query type” to “A specific animal by ID”.
- 4) Type in the full ID in SIL format which is Flock.Tag/last 2 digits of birth year.
In this example 2747.416/12
- 5) Click the green “Start Search” button as before to reveal the results table for that animal.

Results	
Sort results by	SIL DP Overall ordered High to Low Low to High
General Criteria	
Query Type	A specific animal by ID ▼
Animal ID (e.g 1234.5678/09)	2747.416/12

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Dual Purpose

Flock	BTag	Birth Yr	Sex	DPOc	DPR	DPG	DPA	DPW	Sire	Dam	Breed1	Breed2
2747	416/12	2012	R		51	2273	-622		712/11	170/09	Suff 43%	Texel 38%

Your query found 1 animals. Showing page 1 of 1.

Additional sources of useful information www.sil.co.nz

SIL-ACE supporting material

Go to www.sil.co.nz and follow the leads to the SIL-ACE Leader lists. Below the Leader Lists is a section labelled “Additional SIL-ACE information”.

Additional SIL-ACE Information

ACE Analysis Information

[Participants and flock connectedness table](#) *** *This table lists flock type e.g. DP or TS* ***

[Percentile bands table](#)

[National Genetic Trends](#)

SIL-ACE Participants and Connectedness

This table lists SIL active flocks that participate in the SIL-ACE evaluation. It also lists the sub-indexes (e.g. Reproduction, Growth, Dags, Facial eczema etc.) each flock is genetically connected for. Not all SIL flocks participate in SIL-ACE and not all flocks are connected for every trait. If a flock you are interested in is not coming up in a search – check the list of participants to see if are they in SIL-ACE. If so, check if are they connected for the traits you selected in the Overall Index. If they are not connected, remove that trait from the list (including the show and use boxes). Press update and try again.

Percentile Bands Tables

For each SIL-ACE evaluation a percentile band table is generated for Dual Purpose and Terminal Breed sheep. The percentile tables are available on the SIL website on the SIL-ACE leader list page, below the trait leader lists.

The percentile band tables indicate the average value (50th percentile value) and incremental percentile band values for a range of Index combinations, sub -indexes and breeding values for the latest SIL-ACE evaluation. If you are looking at RamFinder results pages for many animals it can be helpful to have printed off the relevant percentile band table to benchmark figures quickly.

National Genetic Trends Graphs

These show the industry average genetic merit by year for SIL-ACE.

For assistance call 0800 SILHELP (0800 745 4357).