Using MateSel with Combined LAMBPLAN ASBVs

Background: MateSel is a mating allocation tool that helps breeders optimise genetic gain while managing inbreeding and co-ancestry. It uses Australian Sheep Breeding Values (ASBVs) and pedigree data to generate optimal mating outcomes based on your breeding objective and level of inbreeding you define. MateSel needs to be run using an index, and currently, there are no indexes available for Combined LAMBPLAN as indexes will be the last tier released following all other individual traits being released and available.

Click here to access MateSel user instructions

Page 19 has information on adding a custom column

Recommended interim solution: Given the expected progeny from your MateSel output will be evaluated using the Combined LAMBPLAN analysis, it's recommended to run MateSel using the Combined LAMBPLAN breeding values where available. This will require a dual approach in MateSel, using the current Terminal/Maternal selection indexes, as well as using available Combined LAMBPLAN ASBVs. Combined LAMBPLAN ASBVs can be uploaded using a custom column into MateSel and then applying trait weightings when setting up your run parameters.

Creating your animal list with Combined LAMBPLAN ASBVs:

1. Searching your animals on the Combined LAMBPLAN analysis on the SG website

2. Filter for the ASBVs you want, then click the 'export' button to your email your results in an excel file. Check the analysis date as Combined LAMBPLAN is not run every 2 weeks.

3. You can edit the excel file, removing any unnecessary columns so it looks like the below with column 1 is animal ID, and other columns are Combined LAMBPLAN ASBVs

	A	B	C	D	E	F	G
1	02129220252 50003	-1.18	0.02	2.60	-1.52	0.00	0.58
2	02129220252 50006	-1.33	-0.03	2.07	-0.85	0.24	0.35
3	02129220252 50008	-2.59	-0.17	1.57	-1.16	0.53	0.70
4	02129220252 50009	-1.57	-0.12	1.57	-1.23	0.42	0.66
5	02129220252 50010	-0.70	0.00	2.46	-1.16	-0.06	0.54
6	02129220252 50012	-0.18	0.07	1.87	-1.35	-0.64	0.34

4. Save the file as a comma-separated variable (.csv) file or a text (.txt) file. Load your animals into MateSel like normal, checking in the 'modify animal' section that the custom column Combined LAMBPLAN ASBVs have loaded in successfully.

5. Fill in your groups and parameters according to your breeding program logistics

6. Run a basic run with just the index first (as always)

7. For the second run, turn the Combined LAMBPLAN traits on by activating the appropriate traits in the 'Traits' tab, ensuring you define the appropriate 'control types' and 'weighting' based on your own breeding objective

8. Run MateSel and download the output files

9. To find the expected progeny result for the custom column Combined LAMBPLAN ASBVs, you will have to manually calculate the mid-parent by doing a vlook up in excel of the custom ASBV/index values based on parents MateSel recommended joining

Please contact Sheep Genetics if you have any questions

Future considerations: There will be a tiered release of traits for the Combined LAMBPLAN analysis, so keep an eye out for communications around when new tiers of traits will be available.

All ASBV trait groups and selection indexes are expected to be released by 2026.

Once all traits are released, a detailed guide on how to use MateSel for Combined LAMBPLAN and any enhancements made to MateSel will be released.

Scan for the latest information on Combined LAMBPLAN