L'Option

GenOvis

Optimal option—how to use it?

A year ago, we were moving to a new genetic program. New EPDs and genetic indexes were released to improve the genetic selection of sheep in Canada. Canadian sheep producers now have access to improved tools to make better selection and to increase their productivity. The optimal option of the mating module is also now accessible by all GenOvis members. This publication will explain how to efficiently use the optimal option.

Cultivons l'avenir 2
Une initiative fédérale-provinciale-territoriale

Canada

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How to efficiently use the optimal option of the mating module?

The GenOvis mating module offers two types of reports, the basic type and the optimal type. The basic type provides a simplified file containing the predicted genetic potential (value and percentile rank) of the two selected traits and the inbreeding coefficient of the offspring (if the box is checked) coming from the selected ewes and rams. The optimal type allows the user to determine the emphasis they want to put on the different traits selected. Also, the files created by the optimal type use an asterisk (*) to indicate the best choice of mating according to the selected traits and the emphasis desired for each one.

WARNING: the optimal type should never replace a breeder's good judgment! It's essential to consider all genetic progress ideas to make the best decisions.

How to use the optimal option of the mating module: a step by step guide.

Optimal type instructions:

– Log on to the **GenOvis web-based program**

– Click on the **Mate tab.**

– Select the **rams** and **ewes to mate**
    (select one by one, by management group, or by copying a list of animals)

– Record a **Job name if you want.** (by default your ROPID will be displayed)

– Select **traits 1** and **2** using the scroll menus.

– Select the **Optimal Type** according to the emphasis you would like to put on each trait

5 Optimal Types Available:

Optimal 11 :   **Emphasizes the selected trait as much as the inbreeding level**

Optimal 01 :   **Emphasizes only the inbreeding level (no emphasis on the selected trait)**

Optimal 10 :   **Emphasizes only the selected trait (no emphasis on the inbreeding level)**

Optimal 12 :   **Emphasizes twice the inbreeding level compared to the selected trait**

Optimal 21 :   **Emphasizes twice the selected trait compared to the inbreeding level**

– Record the **maximum number of ewes (Max ewes)** you would like to breed with each ram. The "max ewes" must equal the number of ewes selected for the job if you select only one ram. (REQUIRED)

– **Check the inbreeding box** to obtain the inbreeding level of the progeny coming from these mates.

– **Check the Use National ID box** to use the national ID (RFID) as ID in the results file instead of tattoo format.

– Click on **Submit.**

– Click on **Refresh** and repeat this step until the end job date and hour appear in the grid located at the bottom right. (for larger requests, you may leave the page and come back later)

– Click on the **Job name** in the grid (underlined in blue) then click on **Fetch.**

– A zipped file containing 4 CSV files will open.

– The two files named PAOPT1 and PAOPT2 are the results of your mating request (one per selected trait)

– Open the CSV files to access the results. The name of the selected trait is at the bottom of the data. The estimated index results is under "%" and the estimated inbreeding result is under "I%".

optimal.log
PA.csv
PAOPT1.csv
PAOPT2.csv
run.log
t1.csv
t2.csv
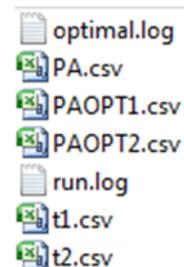
How to obtain optimal genetic progress based on well-planned matings?

A good planning of the matings is a crucial step for the genetic improvement of your herd. The optimal type mating module is a tool that can help breeders when planning their matings. However, the breeder must not rely solely on the mates proposed by the program, since the program does not take into consideration several essential genetic progress notions. Here is a small reminder of the concepts to consider to optimize the genetic progress of your herd when you are planning your matings:

- Aim for an inbreeding level lower than 6.25%

- Increase genetic diversity by:

    ◊ Using rams from different sires

    ◊ Distributing the best ewes in the flock amongst different rams

    ◊ Doing the same number of matings for each ram to allow the selection of young rams from different sires

    ◊ Exchanging genetics between flocks (creation of links between the flocks)

- Improve the accuracy of genetic values by:

    ◊ Using a minimum of 3 rams per group of ewes (management group)

    ◊ Using several rams (to increase the accuracy of the genetic values on the performances of the descendants and to favor the use of young rams)

    ◊ Making genetic exchanges between flocks (improves the connection between flocks)

- Reduce generation interval (average age of parents at lambing) by:

    ◊ Prioritizing the use of young rams (targeting rams of one year or less at mating)

    ◊ Aiming for an average of 3 years of age of ewes at lambing

- Target the strengths and weaknesses of the flock

- Prioritize selection based on genetic selection indexes and avoid using only one EPD

- Pay special attention to conformation to maximize the longevity of your flock

Update your inventory

This is a reminder to update your flock inventory to access accurate values on your different reports.

Discover our video clips on different topics related to sheep on our websites www.cepoq.com www.genovis.ca

Capsules Vidéo

Various videos will help you using the online program.

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