

WHY SHOULD WE SELECT IMPROVER TERMINAL RAMS?!?

Scenario:

- Want to purchase a terminal ram
- Flock of 50 commercial ewes
- 1.3 lambings per year
- 2 lambs weaned per litter
- Expect to use the ram for 5 years
- Total: 650 commercial lambs/ram
- All the lambs are sold as heavy lambs

Terminal breeds:

- Select on genetic index **GAIN** or **CARC**
- Maximizes economic gains on several traits
- Example based on only one trait (gain 50-100 days*) to simplify the calculation and to have more reliable economic references.

The data presented here are real data of terminal rams.

Economic references

- Maintenance costs for lambs in the growth period: **\$0.78/day**
(Calculation based on CECPA - Costs of production for sheep – 2016 personal communication)
- Average ADG (at the end of the growth period) : **343 g/day**
(Project Repeat Measures, CEPOQ, 2015)

RAM A

EPD gain 50-100d = 1.97 kg (90%)**

Economic return:

- 5.7 days less** for growth period
(1.97 kg / 0.343 kg/d)
- 1 lamb = **\$4.45 of saving**
(5.7 days X \$0.78/d)
- 1 litter = **\$8.90 of saving**
(\$4.45/lambing X 2 lambs)
- 1 year = **\$578.50**
(\$8.90 X 50 ewes x 1.3 lambings/year)
- For 5 years = **\$2,892.50** (\$578.50/year X 5 years)

Total: \$2,895.50 for 5 years

RAM B

EPD gain 50-100d = -0.04 kg (25%)**

Economic return:

- 0.1 more day** for growth period
(- 0.04 kg / 0.343 kg/d)
- 1 lamb = **\$0.08 in extra cost**
(- 0.1 day X \$0.78/d)
- 1 litter = **\$0.16 in extra cost**
(- \$ 0.08/lambing X 2 lambs)
- 1 year = **- \$10.40**
(- \$0.16 X 50 ewes x 1.3 lambings/year)
- For 5 years = **- \$52.00** (\$10.40/year X 5 years)

Total: -\$52.00 for 5 years

Economic return difference between a TOP RAM and a ram BELOW THE AVERAGE OF THE BREED on EPD gain 50-100 day is: **\$2,947.50**

If you buy a ram not evaluated (without any genetic evaluation), then you will only know its true value according to the performance of its offspring.

To maximize your investment, buy proven rams.

* Economic return calculated on all the traits of a genetic selection index will give essentially the same value.

**A genetic value indicates the potential performance of an animal. Animals must be in good breeding condition to express their entire potential.

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Economic return related to the genetic values of the ram on EPD Gain 50-100 day

EPD Gain 50-100 day	Percentile	Economic Return on 5 years*
-0.04 kg	25%	\$-52.00
0.47 kg	50%	\$708.50
1.25 kg	75%	\$1826.50
1.97 kg	90%	\$2 895.50

**Additional income as a result of the faster growth of his offspring.*

Economic return:

- Better genetic value = higher economic return related to this trait
- An improver ram on **CARCASS INDEX** will improve lambs':
 - Growth rate
 - Muscularity
 - Fat deposition (leaner)
- An improver ram on **MATERNAL INDEX** will improve descendants':
 - Growth rate
 - Milk production
- An improver ram on **MATERNAL HIGHER PROLIFICACY INDEX** will improve descendants':
 - Prolificacy
 - Growth rate
 - Milk production

Tips for terminal ram selection

- High growth rate
- Ultrasound for loin and fat depth
- Muscular
- Good conformation
- Improver for the breed

CARCASS INDEX (CARC)

Tips for maternal ram selection

(to produce replacement)

- High growth rate
- High prolificacy
- Good conformation
- Improver for the breed
- **To get heavier lambs at weaning while maintaining prolificacy.**

MATERNAL INDEX (MAT)

- **To increase ewe prolificacy while also improving the lambs' growth rate**

MATERNAL HIGHER PROLIFICACY INDEX (MAT-HP)

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