Red Terminal Index (RedTERM)

The Red Terminal Index is designed specifically for the production of venison animals (both male and female for processing). Breeding values (BVs) have been grouped into two sub-indexes, Growth and Meat Yield.

The sub-indexes consists of the relevant BVs multiplied by the relative economic value that reflects the value of an extra unit of the trait to a standard Deer production system.-indexes:

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RedTERM = Red Terminal Growth (RTG) + Red Terminal Meat Yield (RTM)
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This index is expressed in dollars per fawn born and is derived from the Red deer evaluation. It is important to note that Red Terminal values cannot be compared directly with Wapiti Terminal values.

As both RTG and RTM are in cents per fawn born they add together to give the overall value of an animals genetic merit as a terminal sire (RedTERM)

Index values are relative

A stag with a RedTERM Index of \$100 compared to another stag with an index of \$80, is likely to leave progeny that return \$10 more per fawn born than the second stag -1/2 the difference, as the sire contributes $\frac{1}{2}$ the genetic merit to the progeny.

GROWTH

MEAT YIELD

Sub-Index Breakdown

1. Red Terminal Growth (RTG)

This sub-index e summarises genetic merit for growth based on liveweight data..

RTG = \$0.95 x WWTbv + \$1.35 x PWGbv + \$7.50 x CWLbv

Breeding Value (BV)	Abbrev	🕉 Economic Weight
Weaning Weight	WWT	\$0.95
Post Weaning Gain (to 12mnths)	PWG	\$1.35
Carcass weight (predicted from Liveweight only)	\$7.50	

• Key Insight: The majority of the economic value in growth is derived from carcass weight prediction from live weight data.

2. Red Terminal Meat (RTM)

This sub-index summarises genetic merit for meat yield based on Ultra-Sound and CT data.

WTM = \$7.50 x CWYbv + \$12.30 x LEANYbv

Breeding Value (BV)	Abbrev	🚯 Economic Weight
Carcass Weight Yield (predicted from ultrasound or CT info)	CWY	\$7.50
Lean Yield (predicted from ultrasound or CT)	LEANY	\$12.30

• **Key Insight**: Meat Yield informs whether an animal has more or less Meat for its predicted carcass weight from liveweight based on ultra-sound or CT information

Example Table 1 : Merit of 4 Potential Young Sires

The table below illustrates the Wapiti Terminal Index and its components for four young sires:

Stags	RTG	RTM	B RedTERM
1	\$51.02	\$22.71	\$73.73
2	\$71.16	\$15.70	\$86.86
3	\$106.43	\$4.56	\$110.99
4	\$106.53	\$11.01	\$117.54

Key Observations:

• **Stags 1 & 2** have lower growth merit, Stag 1 has higher merit for meat yield. These stags may be suitable for smaller Red hinds or where proving high feed levels is more difficult.

• Stags 3 and 4 have higher merit for growth, resulting in larger progeny but will require more feed.

• **Stag 4** is similar for growth merit but slightly better for meat yield, giving a slightly higher overall potential return.

Additional Notes

3.Red Terminal Carla (RTC)

PARASITE RESISTANCE

This sub-index summarises genetic merit for the immune response to exposure to parasites based on saliva CARLA antigen levels.

RTC = \$0.08 x CARLAbv

📊 Breeding Value (BV)	Abbrev	🕉 Economic Weight
CARLA	CARLA	\$0.08

The Carla sub index and breeding value can be reported but is not part of the Red Terminal Index but as it has the same units \$ per fawn born, it can be added if desired.

Conclusion

The Red Terminal Index is a valuable tool for breeders looking to optimize their venison production through targeted selection of sires based on growth and meat yield characteristics.

Comparability: Red and Wapiti Terminal indexes are not directly comparable due to differences in evaluation methods, herds, and datasets.