Wapiti Terminal Index (WapTERM)

The Wapiti 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.

WapTERM = Wap Terminal Growth (WTG) + Wap Terminal Meat Yield (WTM)

This index is expressed in dollars per calf born and is derived from the Wapiti evaluation. It is important to note that Wapiti Terminal values cannot be compared directly with Red Terminal values. As both WTG and WTM are in cents per calf born they add together to give the overall value of an animals genetic merit as a terminal sire.

Index values are relative

A Bull with a WapTERM Index of $100 compared to another Bull with an index of $80, is likely to leave progeny that return $10 more per calf born than the second Bull - 1/2 the difference in the index as the sire contributes ½ the genetic merit to the progeny.

Sub-Index Breakdown

1. Wapiti Terminal Growth (WTG)

GROWTH

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

WTG = $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)	CWL	$7.50

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

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2. Wapiti Terminal Meat (WTM)

MEAT YIELD

This sub-index summarises genetic merit for meat yield based on Ultra-Sound or 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

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Example Table 1 : Merit of 4 Potential Young Sires

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

Bulls	WTG	WTM	WapTERM
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:

- **Bulls 1 & 2** have lower growth merit, Bull 1 has higher merit for meat yield. These bulls may be suitable for smaller Red hinds or where feeding to high levels is harder.
- **Bulls 3 and 4** have higher merit for growth, resulting in larger progeny but will require more feed.
- **Bull 4** is similar for growth merit but slightly better for meat yield, giving a slightly higher overall potential return.

Additional Notes

3. Wapiti Terminal Carla (WTC)

PARASITE RESISTANCE

This sub-index summarises genetic merit for an animals immune response to internal parasites, based on saliva CARLA antigen levels.

WTC = $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 $/calf born, it can be added if desired.

Conclusion

The Wapiti 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 used to predict the values.

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