

MERINOSELECT Standard Report indexes

Merino 10% +Staple Strength (F10% +SS): Fine wool (10% Micron Premium) plus staple strength.

| <i>Production System – Fine</i> | <i>Breeding Objective – 10% Micron Premium +Staple Strength</i> | | | |
|--|---|--------------------|------------|-----------------------------------|
| This index is applicable to ram breeders supplying self-replacing Merino flocks producing a less than 19 micron adult ewe fleece. 30% of adult sheep are wethers maintained to produce wool. Surplus wethers and ewes are sold as store or meat sheep at yearling to hogget age. | Trait | General | Response | Contribution to economic gain (%) |
| | Fleece weight | small gain | 3.5% | 42% |
| | Fibre diameter | moderate reduction | -0.7 µm | 39% |
| | Staple strength | moderate gain | 1.6 N/ktex | 19% |
| | Body weight | small gain | 1.1 kg | 0% |
| | Reproduction | maintain | -0.5% NLW | 0% |

Merino 14% +Staple Strength (M14% +SS): Merino wool (14% Micron Premium) plus moderate staple strength.

| <i>Production System – Merino</i> | <i>Breeding Objective – 14% Micron Premium +Staple Strength</i> | | | |
|--|---|--|------------|-----------------------------------|
| This index is applicable to ram breeders supplying self-replacing Merino flocks producing 19 to 23 micron adult ewes fleece. Adult wethers are not maintained to produce wool. Wethers and surplus ewes are sold as store or meat sheep at yearling to hogget age. | Trait | Likely genetic response to 10 years of selection # | | Contribution to economic gain (%) |
| | | General | Response | |
| | Fleece weight | maintain | 0.1% | 8% |
| | Fibre diameter | High reduction | -1.2 µm | 58% |
| | Staple strength | moderate gain | 2.1 N/ktex | 31% |
| | Body weight | moderate gain | 2.0 kg | 3% |
| Reproduction | maintain | -0.4% NLW | 0% | |

Merino 7% (M7%): Merino wool (7% Micron Premium) plus moderate live weight emphasis.

| <i>Production System – Merino</i> | <i>Breeding Objective – 7% Micron Premium</i> | | | |
|---|---|--|------------|-----------------------------------|
| This index is applicable to ram breeders supplying self-replacing Merino flocks producing 19 to 23 micron adult ewe fleece. Adult wethers are not maintained to produce wool. Wethers and surplus ewes are sold as store or meat sheep at yearling to hogget age. | Trait | Likely genetic response to 10 years of selection # | | Contribution to economic gain (%) |
| | | General | Response | |
| | Fleece weight | moderate gain | 5.1% | 49% |
| | Fibre diameter | moderate reduction | -0.8 µm | 38% |
| | Staple strength | maintain | 0.1 N/ktex | 5% |
| | Body weight | moderate gain | 2.2 kg | 5% |
| Reproduction | maintain | 0.6% NLW | 3% | |

Merino DP 7% (DP7%): Merino wool (7% Micron Premium) plus high liveweight & reproduction emphasis.

| <i>Production System - Dual Purpose</i> | <i>Breeding Objective – 7% Micron Premium</i> | | | |
|--|---|--|------------|-----------------------------------|
| This index is applicable to ram breeders supplying flocks with a dual purpose Merino production system in the 19 to 23 adult ewes micron range where a proportion of the breeding ewes (typically about 25%) are mated to a terminal sire breed to produce crossbred prime lambs sold at 10-11 months. | Trait | Likely genetic response to 10 years of selection # | | Contribution to economic gain (%) |
| | | General | Response | |
| | Fleece weight | small gain | 2.9% | 26% |
| | Fibre diameter | moderate reduction | - 0.6 µm | 24% |
| | Staple strength | maintain | 0.2 N/ktex | 6% |
| | Body weight | high gain | 4.9 kg | 30% |
| Reproduction | high gain | 2.5% NLW | 14% | |

MERINOSELECT Additional Web Report Indexes

Merino 20% +Staple Strength (F20%+SS): Fine wool (20% Micron Premium) plus staple strength.

| <i>Production System – Fine</i> | <i>Breeding Objective – 20% Micron Premium +Staple Strength</i> | | | |
|--|---|--|------------|-----------------------------------|
| This index is applicable to ram breeders supplying self-replacing Merino flocks producing a less than 19 micron adult ewe fleece. 30% of adult sheep are wethers maintained to produce wool. Surplus wethers and ewes are sold as store or meat sheep at yearling to hogget age. | Trait | Likely genetic response to 10 years of selection ... | | Contribution to economic gain (%) |
| | | General | Response | |
| | Fleece Weight | maintain | -0.5% | 3% |
| | Fibre Diameter | moderate reduction | -0.9 µm | 53% |
| | Staple Strength | high gain | 3.0 N/ktex | 46% |
| | Body Weight | maintain | 0.5 kg | 0% |
| Reproduction | maintain | -1.7% NLW | 3% | |

Merino 14% (M14%): Merino wool (14% Micron Premium) plus moderate liveweight emphasis.

| <i>Production System – Merino</i> | <i>Breeding Objective – 14% Micron Premium</i> | | | |
|---|--|--|------------|-----------------------------------|
| This index is applicable to ram breeders supplying self-replacing Merino flocks producing 19 to 23 micron adult ewe fleece. Adult wethers are not maintained to produce wool. Wethers and surplus ewes are sold as store or meat sheep at yearling to hogget age. | Trait | Likely genetic response to 10 years of selection ... | | Contribution to economic gain (%) |
| | | General | Response | |
| | Fleece Weight | maintain | 0.2% | 11% |
| | Fibre Diameter | high reduction | -1.4 µm | 77% |
| | Staple Strength | maintain | 0.0 N/ktex | 10% |
| | Body Weight | moderate gain | 2.1 kg | 3% |
| Reproduction | maintain | -0.5% NLW | 1% | |

Merino DP 3.5% (DP3.5%): Merino wool (3.5% Micron Premium) plus high liveweight & reproduction emphasis

| <i>Production System - Dual Purpose</i> | <i>Breeding Objective – 3.5% Micron Premium</i> | | | |
|--|---|--|------------|-----------------------------------|
| This index is applicable to ram breeders supplying flocks with a dual purpose Merino production system in the 19 to 23 adult ewes micron range where a proportion of the breeding ewes (typically about 25%) are mated to a terminal sire breed to produce crossbred prime lambs sold at 10-11 months. | Trait | Likely genetic response to 10 years of selection ... | | Contribution to economic gain (%) |
| | | General | Response | |
| | Fleece Weight | moderate gain | 5.7% | 42% |
| | Fibre Diameter | maintain | 0.0 µm | 1% |
| | Staple Strength | maintain | 0.1 N/ktex | 1% |
| | Body Weight | high gain | 4.8 kg | 34% |
| Reproduction | high gain | -4.4% NLW | 22% | |

Likely genetic responses in 10 years in a typical ram breeding flock, using no outside genetics and 70% emphasis on traits in the index. Economic assumptions: 10%SS – 1300c/kg clean, \$40/head; 14% & 7% - 850c/kg clean & \$45/head; DP7% 850c/kg clean & \$80/head

MERINOSELECT indexes are a mixture of traits for growth rate, fleece traits and fertility, and can be summarised for linkage in terms of these trait groups used. Sheep Genetics Australia uses the 'A' and 'R' symbols to describe the linkage of traits used in indexes for individual sheep.

- The symbol "A" is used to indicate that the traits used in the index are all ASBVs and are linked for growth, carcase and fleece (where applicable).
- The symbol "R" is used to signify that the NLW estimate in the index is a linked ASBV. This has a separate symbol as reproductive rate (NLW) is often difficult to measure in some sectors