



## Heritability Estimates Used for Genetic Evaluation in Canada - April 2021 -

| Production Trait   | HO  | AY | JE | BS | GU | CN | MS |
|--------------------|---|----|----|----|----|----|----|
| Milk Yield         | 28  | 32 | 33 | 28 | 31 | 31 | 31 |
| Fat Yield          | 26  | 26 | 27 | 22 | 25 | 25 | 25 |
| Protein Yield      | 26  | 29 | 29 | 25 | 28 | 28 | 28 |
| Fat Percentage     | Not Directly Used – Literature estimate is ~50% |    |    |    |    |    |    |
| Protein Percentage | Not Directly Used – Literature estimate is ~50% |    |    |    |    |    |    |

| Functional Traits            | HO | AY            | JE | BS            | GU | CN | MS |
|------------------------------|----|---------------|----|---------------|----|----|----|
| Feed Efficiency              | 5  | Not evaluated |    |               |    |    |    |
| Herd Life                    | 10 |               |    |               |    |    |    |
| Mastitis Resistance          | 12 | 12            | 12 | Not evaluated |    |    |    |
| Metabolic Disease Resistance | 7  | 7             | 7  | Not evaluated |    |    |    |
| Hoof Health                  | 9  | Not evaluated |    |               |    |    |    |
| Lactation Persistency        | 20 | 23            | 21 | 17            | 21 | 21 | 21 |
| Somatic Cell Score           | 18 | 16            | 18 | 19            | 18 | 18 | 18 |
| Daughter Fertility           | 4  | 7             | 3  | 4             |    |    |    |
| Milking Speed                | 14 |               |    |               |    |    |    |
| Milking Temperament          | 13 |               |    |               |    |    |    |
| Calving Ability              | 3  | 4             | 2  | 3             |    |    |    |
| Daughter Calving Ability     | 7  | 6             | 9  | 7             |    |    |    |
| Body Condition Score         | 21 | 17            | 17 | 18            |    |    |    |

| Major Type Trait           | HO | AY | JE | BS | GU | CN | MS |
|----------------------------|----|----|----|----|----|----|----|
| Conformation (Final Score) | 20 | 22 | 18 | 20 |    |    |    |
| Mammary System             | 24 | 18 | 18 | 18 |    |    |    |
| Feet & Legs                | 13 | 18 | 10 | 14 |    |    |    |
| Dairy Strength             | 23 | 28 | 17 | 23 |    |    |    |
| Rump                       | 26 | 15 | 13 | 14 |    |    |    |

| <b>Descriptive Type Trait</b> | <b>HO</b> | <b>AY</b> | <b>JE</b> | <b>BS</b> | <b>GU</b> | <b>CN</b> | <b>MS</b> |
|-------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Udder Floor                   | 21        | 18        | 13        |           | 15        |           |           |
| Udder Depth                   | 44        | 36        | 42        |           | 39        |           |           |
| Udder Texture                 | 12        | 16        | 11        |           | 13        |           |           |
| Median Suspensory             | 17        | 19        | 17        |           | 18        |           |           |
| Fore Attachment               | 27        | 24        | 25        |           | 24        |           |           |
| Fore Teat Placement           | 27        | 24        | 24        |           | 24        |           |           |
| Rear Attachment Height        | 25        | 25        | 24        |           | 24        |           |           |
| Rear Attachment Width         | 18        | 20        | 19        |           | 19        |           |           |
| Rear Teat Placement           | 29        | 27        | 28        |           | 27        |           |           |
| Teat Length                   | 32        | 31        | 25        |           | 28        |           |           |
| Foot Angle                    | 7         | 7         | 8         |           | 8         |           |           |
| Heel Depth                    | 8         | 9         | 7         |           | 8         |           |           |
| Bone Quality                  | 26        | 34        | 18        |           | 26        |           |           |
| Rear Legs Side View           | 20        | 19        | 14        |           | 17        |           |           |
| Rear Legs Rear View           | 11        | 16        | 9         |           | 12        |           |           |
| Front Leg View                | 11        | 7         | 10        |           | 8         |           |           |
| Locomotion                    | 5         | 8         | -         |           | 5         |           |           |
| Stature                       | 46        | 47        | 30        |           | 39        |           |           |
| Height at Front End           | 23        | 17        | 18        |           | 18        |           |           |
| Chest Width                   | 20        | 16        | 14        |           | 15        |           |           |
| Body Depth                    | 31        | 30        | 25        |           | 28        |           |           |
| Dairy Capacity                | 18        | 18        | 13        |           | 16        |           |           |
| Loin Strength                 | 19        | 16        | 18        |           | 17        |           |           |
| Rump Angle                    | 41        | 33        | 31        |           | 32        |           |           |
| Pin Width                     | 32        | 33        | 19        |           | 26        |           |           |
| Thurl Placement               | 23        | 17        | 15        |           | 16        |           |           |