

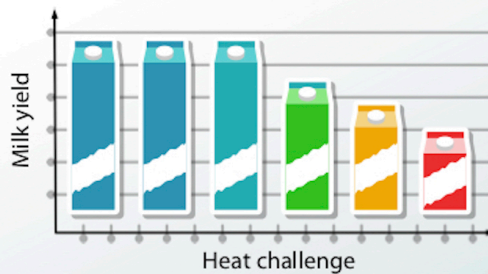
Breeding Dairy Cattle for Climate Resilience



Average temperature has increased by **1.7°C** since 1948 in Canada.



In Ontario and Quebec, cows are exposed to a hot environment over **90 days** per year.



Milk production decreases due to heat stress resulting in economic losses of about **\$44.6M** per year to the dairy industry.



Improved management is one of the ways to tackle this problem, but genetic analyses can also identify more heat-tolerant animals for selection.



Weather data and performance measurements of cows can be used to evaluate their genetic makeup for heat tolerance.

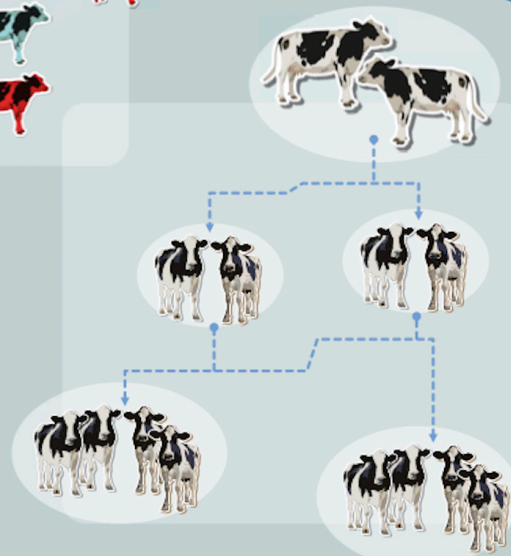
A breeding value is assigned to the cows indicating their potential to maintain milk production under hot environmental conditions.



HIGH heat-tolerance
LOW heat-tolerance

Genetic variability exists for heat-tolerance making it possible to select livestock naturally better adapted to heat stress.

By breeding these animals, the superior genetics for heat-tolerance is passed on to the next generations improving the overall thermotolerance of dairy cattle.



Do you want to know more?
Access: www.foodfromthought.ca/livestock
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