vision

To foster a collective, industry supported strategy for the future of the Holstein Breed which will act as a tool for Canadian dairy producers to maximize profitability and genetic improvement.



evolving guidelines

goal l

Enhance selection criteria that provide the best genetics to Canadian Holstein producers

and the world.

OBJECTIVE 1: Aggressively encourage Canadian producers to maximize genetic progress by genotyping heifers and selecting the best Genomic Parent Average (GPA) for replacement.

- Maximize the volume of females genotyped considering (1) replacement rates, (2) synergies with reproductive technologies, and (3) panel (testing) options.
- Educate producers about effective selection practices using traditional or genomic Parent Averages. Actively encourage the usage of genomic tools for herd management and genetic improvement especially for animals that are not currently Herd Book verified with Holstein Canada.
- Calculate the economic benefit to (1) selecting heifers for culling (especially in non-registering herds) and (2) additional impact when used in combination with reproductive technology (i.e., sexed semen and IV Fertilization).

OBJECTIVE 2: Select the very best young genomic sires from diverse families and ensure an optimum proportion eventually become proven sires.

- Genotype many males and select the very best (high merit combined with genetic diversification) for subsequent progeny testing programs across the world.
- Promote and encourage the usage of mating services from a wide selection of Al organizations. Develop and endorse mating programs that (1) account for the economic impact of informed mating choices (genetic merit versus inbreeding depression) and (2) avoid increases to inbreeding levels.
- Eliminate the overestimation of young genomic sires.
- Inspire the Canadian Dairy Network (CDN) to establish methodologies to adjust sire evaluations according to potential inbreeding in daughters.
- Stimulate all industry partners to contribute towards and communicate the social responsibility of maintaining breed diversity while striving for genetic progress.

OBJECTIVE 3: Increase capacity to market Canadian genetics through enhancement and promotion of the national selection index (Lifetime Profit Index, LPI).

- Modify emphasis of traits in the index to enrich selection for survivability, health and reproductive efficiency. Educate and explain the usage of the index as the most appropriate evaluation for Canadian animals according to the Code of Ethics in all sectors of the industry.
- Optimize selection for functional traits (i.e., Herd Life, Daughter Fertility and health resistance) in combination with Production and Durability (Longevity and Type) to maximize genetic improvement in profitability, survivability and functionality.

OBJECTIVE 4: Aggressively promote Canadian Holsteins. Create awareness and communicate that the "Canadian Kind" is a balanced, dairy strong cow that is functionally correct and built to last.

- Extend information to producers and industry regarding physical attributes that are related to genetic enhancement of production efficiency, health and survivability.
 Ensure that evaluation programs are able to identify cows that are functional; produce large amounts of milk, resist disease and survive for long lifetimes.
- Develop a strategy to open and broaden markets internationally for the sale of Canadian embryos, live cattle and semen.
- Conduct economic analyses to determine the economic value of improvement in all recorded traits (i.e., milk yield and conformation). Increase recognition for cows that are profitable over longer lifetimes rather than based only on lifetime totals (i.e., kg per day of life).
- Constantly recommend the unbiased opinion of Holstein Canada's classifiers.



Develop and maintain animal evaluation systems that accurately assess profitable and trouble-free holsteins in order to increase participation in genetic management programs.

OBJECTIVE 1: Ensure the Canadian Classification Program is a valued management tool that can accurately assess "structural functionality" which advances profitability and survivability.

- Ensure that the traits included in assessment of feet and legs exploit improvements to mobility and resistance to hoof disease.
- Constantly raise the bar on evaluation of Mammary System. Rewards udder that are capacious, tightly attached and have extremely soft texture to maximize productive life that is free from disease.
- Optimize the definition of Dairy Strength towards decreasing emphasis on traits that are antagonistic to profitability and survivability. Develop selection strategies that describe optimal size and height in combination with strength and angularity to maximize economic efficiency.
- Ensure selection for a functional rump in combination with an extremely strong loin. Endorse selection for a pelvis that is properly angled with thurls that are correctly placed for easier calving and durable mobility.

OBJECTIVE 2: Ensure that core services (1) are adaptive and flexible for new data collection opportunities and (2) capitalize on changes to herd demographics (herd size, commercial focus, intense management styles).

- Investigate the possibility of offering service alternatives tailored to herd size and management objectives including (but not limited to); (1) increased frequency of visits, (2) detailed reporting to aid in management decisions and (3) consideration of volume and loyalty discounts.
- Investigate the feasibility of novel assessment methods (i.e., young or breeding age animals) for additional opportunities to further improve herd management and animal welfare.

- Adapt evaluation methods according to housing environments, especially for locomotion, in order to improve accuracy of assessment.
- Dedicate research funding to determining the economic value of functional conformation in relation to herd profitability. Ensure that emphasis of traits within Final Score and description of ideal codes are defined by their economic value.
- Increase focus on value-added reporting and benchmarking for all classification traits to improve herd management potential.

OBJECTIVE 3: Increase industry commitment and priority to research on-going concerns and needs of all producers.

- Maintain support for funding and participation on the DairyGen Research Council of CDN. Extend research results and benefits to dairy producers as often as possible.
- Explore innovative funding opportunities in collaboration with other industry partners including Dairy Farmers of Canada.
- Continually solidify understanding between researchers, industry and producers to facilitate cooperation and support at all levels.
- Dedicate research funds secured to calculating the direct dollar benefit to producers resulting from the current genetic management programs (identification, genotyping, milk recording, classification and young sire usage).
- Dedicate industry funds to support data collection for novel traits and develop strategies and methods for their selection. Consider building resource populations in cooperation with industry partners and increase use of genomic technologies.

OBJECTIVE 4: Encourage the use of Best Management Practices (BMP) and ensure that all on farm advisory services focus on animal husbandry techniques and improvements to animal welfare.

- Incorporate the present and future needs of the consumer in breeding and management.
- Consider the needs and demands of the producer (such as decreasing the carbon footprint) in order to position the industry for the future.

OBJECTIVE 5: Encourage participation in Herd Book registration to enhance traceability initiatives and foster links with other recording programs (milk recording, classification and health).

- Educate producers that genotyping is a means to record linage, enhance genetic selection and improve management.
- Consider participation in genotyping initiatives for females and males in cooperation with other industry partners whenever possible.
- Maintain and increase participation by considering a cost structure tailored to the philosophy "the more you use, the more you benefit". Collecting pedigree and phenotypes is imperative to improve management and ensure the applicability of genomic selection.

Intensify collaboration and exchange between industry partners to gain efficiencies and increase effectiveness.

OBJECTIVE 1: Share common administrative goals to gain efficiencies and enhance business opportunities at all levels in every sector. Partners should support and encourage one another wherever possible and unite for one common goal, profitability on dairy farms.

- Evaluate the amount of current duplication in data transmission, personnel, services and programs and build efficiencies without losing individual organization identities.
- Increase the amount of joint industry ventures to ensure cross promotion of services for maximum benefit of all.
- Each organization should aim to fulfill their role in the most cost effective manner. Services need to be constantly streamlined and enhanced to become more effective at the lowest possible cost.
- Involve Dairy Farmers of Canada in all facets of business that would benefit from government lobbying.



OBJECTIVE 2

Improve coordination of information and field extension so messages are communicated consistently and effectively. Incorporate a 'dollars and cents' approach to every sales pitch.

- Joint initiatives and support opportunities should be encouraged to enable technology transfer between all industry sectors. Expand resources in order to educate, extend information and collaborate (extension days).
- Increase cross-training and hosting joint conferences to communicate larger joint initiatives. Expand understanding of each other's roles, challenges and upcoming changes in sectors.

OBJECTIVE 3: Stay connected through various forms of media for instant communication to the grass roots. Ensure that large and high impact messages effectively reach producers.

- Messages should be frequent, visual, and enable "open forum" feedback. Social media posts have heightened excitement and energy in our industry.
- Intensify extension on genomics and focus on the opportunities for selection, herd management and improving profitability on farms.
- Foster trust and mutual respect between scientists, industry and producers through committees, boards and staff.

OBJECTIVE 4: Significantly improve data linkages and frequency of exchange between industry partners.

- Consider building a national and centralized hub for web services that ensure data only needs to be captured once and can be shared easily.
- Increase and improve links to allow increased access to data for more informed decisions, greater convenience, lower costs and improved research.
- * Adapt data collection and transfer to new technologies (i.e., robotic milkers).

OBJECTIVE 5: Work with other organizations to support industry issues at the government level (i.e., DFC for Supply Management and CLGA for market access).



Support Dairy Farmers of Canada (DFC) in their quest to implement a national traceability system for dairy cattle.

OBJECTIVE 1: Support DFC's ProAction initiative and fully integrate new standards to enhance Herd Book practices.

- + Finalize the implementation of a unique (and national) premise identification system.
- Track animal movement by enabling the National Identification database and premise locations to be accessible by all industry and service providers.
- Ensure Herd Book requirements support traceability standards established by by Dairy Farmers of Canada's ProAction programs.
- Establish standards that are flexible and contingent of other breeds and species of livestock and ensure that the issue of full traceability of dairy continues to move forward.
- Foster strong collaborative industry efforts to collect traceability information through the national tracking database.

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OBJECTIVE 2: Incorporate the collection and banking of a DNA sample for each registered animals into the National Lifetime Identification standards for enhanced disease surveillance and protection.

- Work with approved tag manufacturers to deliver a solution that is easy and convenient to use, has high retention and is cost effective.
- Incorporate bio-banking into Herd Book practices by (1) making it accessible and (2) promoting the added value (genomic and recessive testing as well as parentage confirmation).



Cultivate a group of passionate and unified young leaders who are knowledgeable and enthusiastic advocates for the dairy industry who will become committed to breed advancement and industry sustainability in their chosen careers.

OBJECTIVE 1: Cultivate opportunities for youth that teach dairying and breed improvement with the financial support of all industry partners.

- Develop programs that help facilitate succession of farms (quota, animals and land) into the next generation (inside or outside of families).
- Support programs which empower youth through training in areas such as leadership and media communication encouraging self-development in order to effectively join the industry.
- Develop provincial and national management programs to teach the basics of profitable dairying including the benefits of genomic testing, classification and production management.

OBJECTIVE 2: Aggressively encourage enrollment in education programs and foster learning opportunities at both agricultural colleges and universities.



OBJECTIVE 3: Foster practical learning opportunities

- Ensure that youth appreciate and see the vision in future business opportunities (from direct production to industry extension) where hard work and risk-taking result in success and profit.
- Gear opportunities towards enabling Canadian youth to travel to other countries to acquire knowledge about alternative management systems.
- Create practical exchange opportunities domestically in order for youth to learn from fellow producers in Canada.

OBJECTIVE 4: Significantly improve depth and amount of education and literature on breed improvement and dairying that focus on youth in the industry.

- Encourage industry partners to be active in the development and deployment of education opportunities for youth.
- Make extensive use of social media to endorse breed improvement tools and provide information extension.