

THE CANADIAN AYRSHIRE BREEDER'S ASSOCIATION

Presented to
The World Ayrshire Conference Delegates

by
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THE CANADIAN AYRSHIRE ASSOCIATION

- 545 members
- Mainly in eastern
- Quebec
- Ontario
- Maritime provinces
 - New Brunswick
 - Prince Edward Island
 - Nova Scotia



The Canadian Ayrshire Association

- ▣ 9 board members
 - 3 Western section (2 Ontario -1 west (3 provinces))
 - 5 Eastern section (5 Quebec - Maritimes (4 provinces))

- ▣ Provincial associations
 - Quebec (9 local clubs)
 - Ontario (2 local clubs : East & West)
 - West (4 provinces : 1 regional club)
 - East (3 provinces : 1 regional club)

- ▣ 3 employees «full time »
 - National Fieldman
 - Head Office
 - Employees « part time »
 - ▣ Herdbook & database, accounting, Ayrshire review, etc.
 - 1 Provincial Fieldman (Quebec)

THE CANADIAN AYRSHIRE ASSOCIATION

- ▣ The members are close to their association
 - Follow and support genetic direction of the breed.
 - Strong supporters of the breed activities
 - They ask questions and give feedback of their needs and services offered....

THE CANADIAN AYRSHIRE ASSOCIATION

- ▣ Historically the Canadian Ayrshire Breed is recognized for:
 - Excellent conformation
 - Very good components production (%Fat & Prot.)
 - Very good for health (often ignored by the industry)



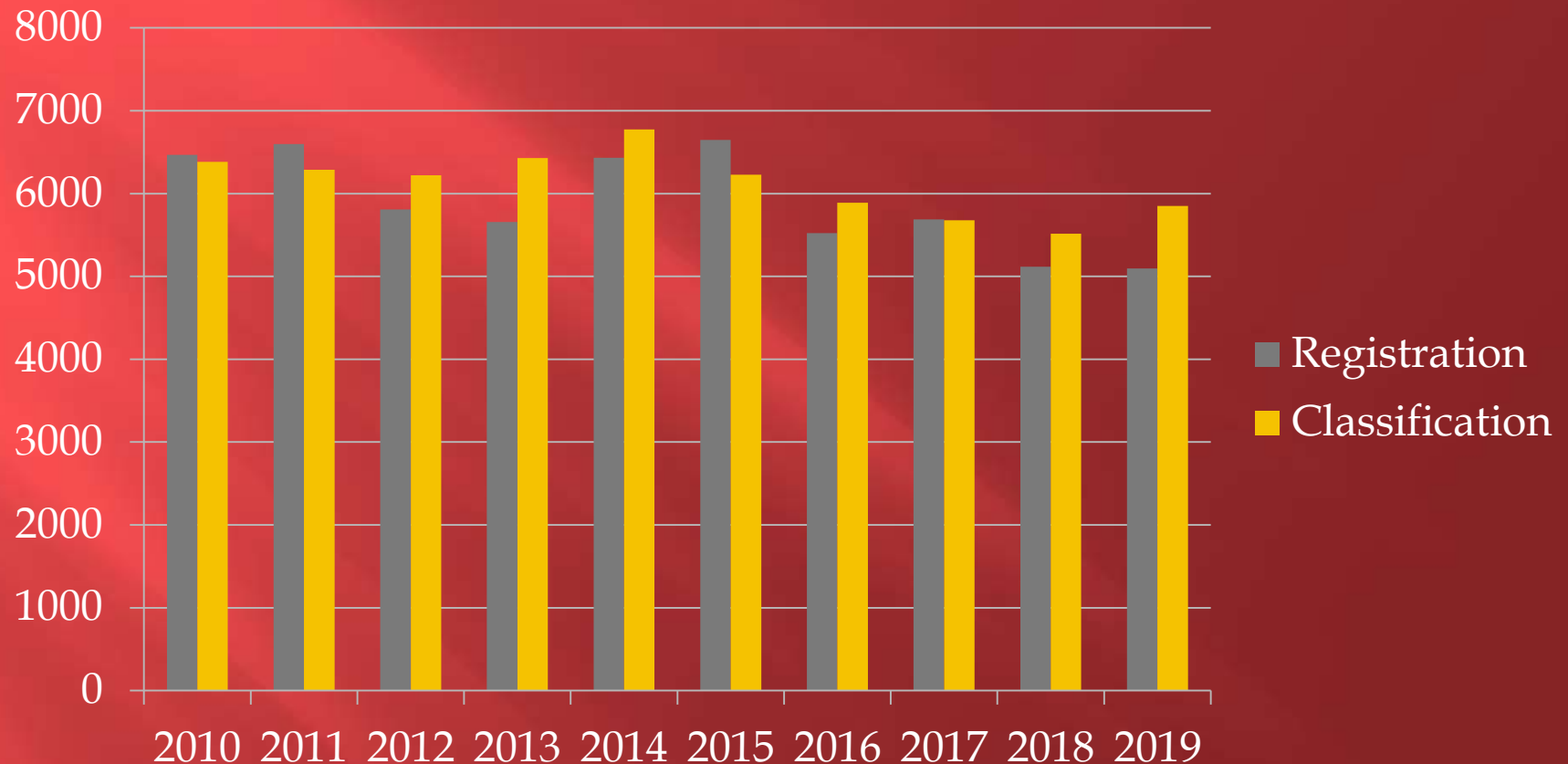
The Canadian Ayrshire Association

- ▣ 3rd largest breed in Canada; (3% AY, 4% JE, 92%HO)
- ▣ The registration of each animal is the base of the breed genetic improvement ;
 - +/-90% of Ayrshires are registered when they are born
 - Essential for pedigree herdbook;
- ▣ In Canada, only identification is compulsory.

Registration = Genetic + Traceability
Identification = Traceability



The Canadian Ayrshire Association



Registration = 6125 avg /yr
Classification = 5903 avg/yr
Milk Recording = +- 8300 cows

The activities

- ▣ Young breeders forums
 - Heifer exchanges, management, etc
- ▣ Help for buying and selling animals
- ▣ Classification
- ▣ Herdbook



The activities

- ▣ Judging school
- ▣ Shows & Breeders Cup



The activities

- ▣ The Canadian Ayrshire Review
 - 4 times / year



Production

| | Milk | Fat | | Protein | | BCA | | |
|-------------|-------|-----|-------|---------|-------|------|-----|--------|
| | | kg | % | kg | % | Milk | Fat | Potein |
| 2018 | 8 079 | 334 | 4,15% | 273 | 3,39% | 233 | 234 | 239 |
| 2014 | 7 781 | 319 | 4,11% | 261 | 3,37% | 224 | 223 | 228 |
| 2010 | 7 663 | 307 | 4,02% | 255 | 3,34% | 218 | 213 | 221 |
| 2006 | 7 423 | 293 | 3,96% | 246 | 3,32% | 213 | 204 | 214 |
| 2002 | 7 369 | 292 | 3,98% | 246 | 3,34% | 210 | 202 | 213 |

* 305 days in milk

** We work with BCA to compare production / Mature Equivalent
Milk : 1pt =39,981kg Fat : 1pt = 1,623kg Prot. 1pt =1.315



Production

| | Milk | Fat | | Protein | | BCA | | |
|-------------|--------------|------------|-------|------------|-------|------|-----|--------|
| | | kg | % | kg | % | Milk | Fat | Potein |
| 2018 | 8 079 | 334 | 4,15% | 273 | 3,39% | 233 | 234 | 239 |
| | 9 316 | 380 | | 314 | | | | |
| 2014 | 7 781 | 319 | 4,11% | 261 | 3,37% | 224 | 223 | 228 |
| | 8 956 | 362 | | 300 | | | | |
| 2010 | 7 663 | 307 | 4,02% | 255 | 3,34% | 218 | 213 | 221 |
| | 8 716 | 346 | | 291 | | | | |
| 2006 | 7 423 | 293 | 3,96% | 246 | 3,32% | 213 | 204 | 214 |
| | 8 516 | 331 | | 281 | | | | |
| 2002 | 7 369 | 292 | 3,98% | 246 | 3,34% | 210 | 202 | 213 |
| | 8 196 | 323 | | 280 | | | | |

* 305 days in milk

** We work with BCA to compare production / Mature Equivalent
Milk : 1pt =39,981kg Fat : 1pt = 1,623kg Prot. 1pt =1.315



Production

The last 10 years have seen rapid growth in production gain of 22% between 2009 and 2013 and 42% between 2014 and 2018, while retaining our % fat and protein.

| Evolution of the production in Canada | | | | | | | | | | |
|---------------------------------------|-------|-----------|-----|-----------|-------|-----------|---------|-----------|-------|----------|
| | Milk | | Fat | | | | Protein | | | |
| | | | kg | | % | | kg | | % | |
| | kg | Gain / yr | kg | Gain / yr | % | Gain / yr | kg | Gain / yr | % | Gain/ an |
| Average 20yrs. 1999 to 2018 | 7 565 | 55,4 | 304 | 3,05 | 4,03% | 0,01% | 252,8 | 2 | 3,39% | 0,004% |
| Average 5yrs 2014 to 2018 | 7 953 | 60,8 | 328 | 4 | 4,13% | 0,02% | 267 | 2 | 3,37% | 0,007% |
| Average 5yrs 2009 to 2013 | 7 656 | 42,8 | 309 | 3 | 4,04% | 0,02% | 256 | 2 | 3,35% | 0,004% |
| Average 5yrs 2004 to 2008 | 7 417 | 35,0 | 294 | 0 | 3,97% | 0,00% | 247 | 0 | 3,33% | 0,000% |
| Average 5 yrs 1999 to 2003 | 7 234 | 89,8 | 286 | 5 | 3,97% | 0,02% | 241 | 4 | 3,34% | 0,007% |



Production

Nutritional Research Project

« Development of a Protein Diet Adapted to the Ayrshire Breed »

Goals

- To increased protein concentration in a diet of Ayrshire dairy cows
- To better meet the nitrogen requirements of Ayrshire cows to increase milk production and maintain high components

The Canadian Genetic tools

- ▣ Our main genetic evaluation tool is Lifetime Profit(\$) Index
 - ▣ LPI = 46 % production, 32% conf. 22% Health
 - ▣ LPI is +98% correlation with TPI
- ▣ We work with partners and CDN to decide the formula of the genetic index(LPI) calculation.
 - Ayrshire Canada breed improvement committee with advisors
- ▣ Canadian Dairy Network (Lactanet) makes the calculation of the genetic index changes
- ▣ Breeders asking for efficiency and regularity on bull proofs and genetic evaluations.



The Canadian Ayrshire Association

- ▣ **Genomics is essential for breeders as a tool for genetic selection and future developments.**
 - Highest % of genotyped females of all breeds
 - Research projects based on genomic testing to:
 - Increase reliability,
 - Eliminate haplotype (AH1, Etc.)
 - Develop new benefit for breeders (A2A2, Immunity +)
 - Etc.
 - +4500 genomic results in the Canadian database

Gain of reliability with genomic

| Breed | Ayrshire | Brown Swiss | Jersey | Holstein |
|---|----------|-------------|----------|----------|
| Young Bulls and Heifers with a proven sire | 35 -> 44 | 30 -> 51 | 34 -> 52 | 41 -> 74 |
| Heifers with Low density Genotype | 32 -> 41 | 30 -> 52 | 29 -> 48 | 37 -> 70 |
| Younger cows in 1st or 2nd lactation with LD Genotype | 45 -> 52 | 44 -> 61 | 48 -> 61 | 48 -> 74 |
| 1st Crop Proven Sires | 73 -> 74 | 64 -> 74 | 37 -> 53 | 84 -> 89 |
| Foreign Sires with MACE in Canada | 61 -> 66 | 61 -> 70 | 65 -> 72 | 65 -> 83 |

Ayrshire = Lowest of all major breeds

Why ? Because we don't share results between countries...

Will be essential to increase our reliability and world efficiency.

Classification

- ▣ This is a good example of what we are looking for...



6 lacts. 57832 kg milk 2550 kg Fat 4.4% 2121kg Prot 3,7%

Lactation = 305 days

The Canadian Ayrshire Association

- ▣ To face the future, the Canadian Ayrshire breed has to
 - Continue to increase Production & Health traits
 - Maintain conformation
 - Modernize our way to work (National & International level)
 - ▣ Show is a good promotion but is not all...
 - ▣ Working with modern genetic tools
 - ▣ Genomics, genetic indexes
 - World wide data base exchange
 - Share information between Ayrshire countries (Genomics and Genetic)





Ayrshire Canada

The Canadian Ayrshire
Production · Health · Conformation



La Ayrshire Canadienne
Production · Santé · Conformation



www.ayrshire-canada.com

Thanks!



AYRSHIRE
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No problem !