## Nordic perspective for future holstein breeding

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#### **Nordic Holstein breeding**

- Finland, Sweden and Denmark set together the balanced breeding goal (Nordic Total Merit) with unique Nordic Traits
  - Farmers
  - Herdbook organizations
  - Reseach
  - Listen to visions of dairy industry and other partners
- Nordic databases
- NAV Evaluation (<a href="https://nordicebv.info">https://nordicebv.info</a>)
- Breeding program owned together VikingGenetics
- Selection made also from other areas, based on Nordic breeding values and traits





#### Future milk production in Finland

- Main buyer of milk have goal to be carbon neutral 2035
- High production and salary cost
- Consumers are very aware of animal welfare and environmental issues
- Strict rules for use of medicines
- Sustainability, carbon footprint and animal welfare has effect for the milk price already and these themes are potentially increasing, and certain level is needed!
- Different effect of climate change than most of milk production areas
  - Climate moves to better from farming point of view
  - Lack of water is no problem
- More milk liquid (water) is not needed, and lactose is not paid.
- More fat and protein is anyway needed
- Consumers have more and more effect and less knowledge of dairy farming



#### Future 1/2

Health traits have been part of Nordic Breeding since 1980's and continue to be important.

- Use of antibiotics should be as low than possible (not to create resistant bacterias)
- It is possible that certain level of health in herd level will be required sooner or later by milk buyers or governments?

Feed efficiency, new and will be in many ways important

- CFIT will create imporant info of RFI
- Important win-win trait
- Part of lower carbon footprint

Holsteins need to be able to make high production with nutrition based mostly componets not suitable for humans and low carbon footprint?

- Cow that can make milk from grass based nutrition
- Pressure for pasturing by consumers



#### Future 2/2

### Things like high milk yield are not necessary seen same way from consumer point of wiev anymore?

- High yield (liters) can be seen negative?
- High components are also saving costs (cost of lactose, transport, storage, drying)
- Lot of room to gain, seal milk can have fat% up to 50...

#### How consumers will react for new breeding techniques (lab breeding)?

- Holstein is leader of dairy breeds to adapt new things
- If this will have image risk, we will face it first

Inbreeding must be taken seriously if we do see future production made with purebred holsteins.

- Not so serious if crossbreeding gain popularity
- Difficult target, because in short term no wins

There will be earn money traits and save money traits

But we will also face needs to breed traits that do not have direct positive impact for farm economy like methane emissions



# Thank you for your interest!



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