



KNOWLEDGE CENTRE FOR AGRICULTURE

Cattle

# Future collection of DNA – a Danish pilot study

NAV workshop  
10<sup>th</sup> January 2013

Anders Fogh

PARTNER IN  
**DLBR**<sup>®</sup>  
DANISH AGRICULTURAL  
ADVISORY SERVICE



Landdistrikter.dk

Ministeriet for Fødevarer, Landbrug og Fiskeri

Den Europæiske Landbrugsfond for Udvikling af Landdistrikterne

Den Europæiske Union ved Den Europæiske Fond for Udvikling af Landdistrikter og Ministeriet for Fødevarer, Landbrug og Fiskeri har deltaget i finansieringen af projektet.

# Future in genomic testing

- **Prices go down on genomic test – already in 2013**
- **Prices on sexed semen go down – already in 2013**
- **Possible economic advantage in testing females on a large scale in many herds**

# Future in genomic testing

**In relation to new registrations in the future DNA collection has to start now, if it takes place along with ear tagging**

**– DNA available on females with new registrations 2-3 years ahead!**



# Advance in equipment for tissue sampling

- **Combined ear tag and sampling applicator**
- **Used for BVD control in Italy and Great Britain**
- **Advantage: Unique connection between ear tag number and tissue sample number**



# Danish pilot study

- Experience with use of tag – **not test!**
- Workflow of putting in tags
- Problems with tags afterwards
- Holstein and Jersey herd
- Approx. 120 tags per herd
- November 2012 – January 2013 (later in Jersey herd)
- Frozen samples are genomic tested by Genoskan

# Danish pilot study

- **How well does conserving liquid work**
  - **15 calf's with double samples per herd**
  - **Refrigerator, room temperature (dark, light)**
  - **Samples tested by Genoskan**
- **Cooperation between Knowledge Center for Agriculture, Cattle, Allflex and VikingGenetics**
- **Supported by VikingGenetics and Danish Holstein Association**

# Farmer experience - so far

## Holstein Herd:

- In general it works well
- Has to be careful when joining “male” part and container with conserving liquid

# Conservation experience - so far

## Genoskan:

- Challenge to handle samples in lab
- No results yet





# Future development

- **Pilot study will be background for development of procedure for large scale collection of tissue samples**
  - **From barn to lab**
  - **Cost efficient**
  - **Good DNA quality**
- **Knowledge Center for Agriculture, Cattle will develop and test in 35 herds 2013-2014**



# Future collection of DNA samples

**Will be:**

- An integrated part of the recording system**
- Give genetic progress**
- Give new possibilities in relation to trace ability**

