

**NAV claw health work ongoing  
Expect to have joint evaluation by the  
end of the year**

**Gert Pedersen Aamand  
French visit 29.8.2010**

**NAV**



**Nordisk Avlsværdis Vurdering • Nordic Cattle Genetic Evaluation**

# NAV: Workshop - january 2008

Same claw registrations in Denmark, Sweden and Finland

- describe the same claw diseases (international definitions)
- define classes of severity (free, mild, sever (0,1,2))
- define disease to be recorded

**Same traits recored in the same way in DK, S og F!**

**NAV**



Nordisk Avlsværdis Vurdering • Nordic Cattle Genetic Evaluation

# Registration by clawtrimmers

## Main categories:

- **Digital Dermatitis – klöveksem**  
Dermatitis
- **Balleförrådelse – klövröta**  
Heel Horn Erosion
- **Såleblødning – Sulblødning**  
Sole Hemorrhage
- **Såleknusning – klövsulesår**  
Sole Ulcer



**NAV**



# Registrations of claw diseases in Sweden

Year	Numbers
2003	42.700
2004	65.089
2005	162.960
2006 (to okt)	118.270

**Today >1.000.000 reg.!**

**NAV**



Nordisk Avlsværdi Vurdering • Nordic Cattle Genetic Evaluation

# Registration of claw diseases in Finland

Year	Trimmed cows
2002	5.943
2003	48.655
2004	49.063
2005	51.485
2006	39.388
2007	29.240
2008	31.107
2009 (april)	4.340

Research

Routine

**NAV**



# Registrations of claw diseases in Denmark

- Over 80.000 since April 2010!!

**NAV**



Nordisk Avlsværdi Vurdering • Nordic Cattle Genetic Evaluation

# Registration – claw trimmer data

**Finland (paper):**

**Claw trimmer deliver a report – farmer or technician type and transfer to data base base**

**Sweden (paper):**

**Report from claw trimmer is scanned to database**

**Denmark (PC – touch screen):**

**Electronic registration along with trimming**

**NAV done by trimmer or farmer**



# Traits

**We plan to focus on:**

- **Dermatitis**
- **Heel Horn Erosion**
- **Sole Hemorrhage**
- **Sole Ulcer**
- **(cork screw claws and Interdigital hyperplasia, Wart and White line disease)**

**NAV**





# Hoof trimmer data - Basis

- 4 main categories of hoof problems as 0/1/2
  - Dermatitis
  - Heel Horn erosion
  - Sole Haemorrhage
  - Sole Ulcer

# Traits

We plan to focus on:

- **Dermatitis (Lact1-lact3)**
- **Heel Horn Erosion (Lact1-Lact3)**
- **Sole Hemorrhage (Lact1-Lact3)**
- **Sole Ulcer (Lact1-Lact3)**
- **(cork screw claws and Interdigital hyperplasia, Wart and White line disease)**

**NAV**



# Data quality

- We have to do some editing to ensure we use data from herds with "complete" registration and not data from herds where we only have registrations with for cows with claw diseases

**NAV**



Nordisk Avlsværdi Vurdering • Nordic Cattle Genetic Evaluation

# Preliminary genetic parameters Heritabilities (Swedish data)

- Dermatitis – 4-5%
- Heel Horn Erosion – 6-8%
- Sole Hemorrhage – 4-5%
- Sole Ulcer – 2-3%

# Preliminary genetic parameters

## Genetic correlations (Swedish data)

- **>0.80 across lactations within trait**
- **Dermatitis – Heel Horn Erosion >0.60**
- **Sole Hemorrhage – Sole Ulcer >0.60**

# Plan genetic evaluation

- Use a linear Animal Model – quite traditional fixed effects
- Incorporate the EBV for claw health in out NTM (total Merit Index)
- Routine evaluation starting around New Year
- Danish data will be added as soon as possible (we will do simple data checks)

**NAV**



Nordisk Avlsværdi Vurdering • Nordic Cattle Genetic Evaluation