Presentation of Danish system of registration and use of health data

Health Data Conference
General aspects – part 1

Aarhus 2013
Johannes Frandsen
The Danish Cattle Database system

Characteristics
- All Cattle
- Many data
- High coverage
- High validation
- Many (all) business areas
What is the Danish Cattle Database?

Complete database of cattle farmers and cattle in Denmark

- Information on every cattle owner in Denmark
- All cattle identified by individual ear tag (both dairy and beef)
- All herds (animal at all times and the herds location)

Cooperation with the authorities

Used by research institutions

Statistics
The farmer is the owner of the data in the Danish Cattle Database

By signature the farmer legalizes veterinarians, livestock and breeding consultants, hoof trimmers, dairy factories etc. to see or use data of his herd.

The benefit for these are that they only deliver data for their own area, but have access to all data in their daily work.
Use of data in daily management

Alarms
Work lists
Feeding plans
Breeding plans
Ratios
Budgets
Forecasts
Benchmarking
Research
Statistics
Data in the Danish Cattle Database?

From the farm and the farmer:
• Animal registration
• Milking
• Feed intake
• Disease and medicine per cow

From the advisers and vets.:
• Breeding information
• Diseases and medicine consumption
• Milk quality and quantity
• Claw registration
• Etc.

Automatic or manual

Cattle Database + Dataware house

Automatic

• Dairy factories
• Slaughter houses
• Rendering firms
• Laboratories
• Economic database
• Crop database
Cattle Database and IT systems

External databases

Benchmarking

SSO
DCF Services

FVST Data warehouse

Data warehouse

Cattle database

Ministry

DMS

Animal reg.

PDA

Claw.reg.

Hånd terminal

Web.reg

CHR control
Data in the Danish Cattle Database - herd

**Data from CHR**: Owner, OSR, livestock legalisation, etc.  
(RYK**, farmer, the common database)

**Veterinary monitoring**:  
Salmonella, Para tuberculosis, B-streptococci, BVD, IBR, Leucosis  
(Cattle Database Steins | Eurofins)

**Milk quality from tank milk samples**:  
Fat, protein, cell count, etc.  
(dairies)

**Geometric cell and bacterial count**:  
(dairies)

**Delivered quantity of milk**:  
(dairies)

**Milk recording**:  
Milk, fat, protein, cell count, etc.  
(RYK**, via Livestock registration/ Cattle Database)

**Breed data**:  
(Cattle Database)

**Prognosis and budget**:  
(cattle farming adviser)

**Quota data**:  
(Danish Milk Board)

**Ear tags**:  
Serial tags, replacement tags  
(ear tag manufacturers)

**Red = Data required by law**  
**Grey boxes = Via the IT-system of external partners**  
**Blue boxes = Calculated via data in the Danish Cattle Database**  
( ) = Data provider

*CHR = Central Husbandry Register  
**RYK = Livestock Registration and Milk Recording
Herd health agreements

Herdsize < 100 cows and < 200 young animals

Voluntary agreement

Basic agreements

Inter disciplinary advice

Farmer school

2 visits by vet. & cattle production adviser

Herdsize > 100 cows or > 200 young animals

Mandatory agreement

Extended agreements

Extended agreement type 1

9 -12 visits by vet.

Extended agreement type 2

18 - 52 visits by vet.
Number of herds with different herd health agreements

<table>
<thead>
<tr>
<th>Type of agreement</th>
<th>Mandatory</th>
<th>Voluntary</th>
<th>Total</th>
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<tbody>
<tr>
<td>Basic agreements</td>
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<tr>
<td>Interdisciplinary agreement</td>
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<td>2</td>
<td>103</td>
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<td>Farmer school</td>
<td>241</td>
<td>10</td>
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<td>701</td>
<td>3255</td>
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<tr>
<td>Total</td>
<td>2896</td>
<td>713</td>
<td>3609</td>
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</table>

Counted May 2th.

More than 74 % of danish dairy herds have a herd health agreement

More than 93 % of all danish dairy cows are included in herd health agreements
<table>
<thead>
<tr>
<th>Requirements for visits</th>
<th>Medicine</th>
<th>Vet. report</th>
<th>Farmer duties</th>
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<tr>
<td>Basic agreements</td>
<td>Animal welfare Audit</td>
<td>Follow up treatments 5 days, young stock</td>
<td>At every visit</td>
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<td>Interdisciplinary advice</td>
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<tr>
<td>Farmer school</td>
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<tr>
<td>Extended agreement type 1</td>
<td>Animal welfare Audit Actual Health status (data + identification of herd problems)</td>
<td>Herd diagnosis, young stock Follow up treatment of adult animals (up to 5 days)</td>
<td>Every third month (Youngstock: Every fourth month – however farms in GFP every sixth month)</td>
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<tr>
<td>Extended agreement type 2</td>
<td>Animal welfare Audit Clinical examination of animals at risk (data + identification of herd problems)</td>
<td>Herd - diagnosis 35 days</td>
<td>Every third month</td>
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</table>
Claw Health Registration

Co-owned by:
Sweden
Finland
Norway
Denmark
Claw Health Data - in and out

Trimmers program

Central Cattle Database

The comprehensive view

Central Animal output program

Other program

Other program

Other program

Data

Output

Data
<table>
<thead>
<tr>
<th>Date</th>
<th>Disease</th>
<th>Sev.</th>
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<th>Shoe</th>
<th>Band</th>
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<td>Klovbeskærer, Kaj Andersen</td>
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<td>LB RB</td>
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<td>Klovbeskærer, Kaj Andersen</td>
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</tbody>
</table>
"KvikKoen" – a PDA solution

From the barn to the cattle database
How does KvikKoen work?
Cattle Database and IT systems

- External databases
- Benchmarking
- Herd Navigator
- SSO
- DCF Services
- Claw.reg.
- Hånd terminal
- CHR control

- FVST Data warehouse
- Data warehouse
- Cattle database
- Ministry
Communication with external databases

- Arla
- Thise Mejeri
- eurofins
- Allflex
- KRUUSE
- DANISH CROWN
- STRANGKO
- DeLaval
- LELY
- SAC
- Daka
- Destron Fearing™
- CowDetect

Den Danske Dyrlægeforening

DCF Services

Cattle Database

SSO
Why do get so many data – nobody wants to do registration!

- Long cultural tradition and a convincing advisory service
- High benefit on registered data in management tools (and breeding evaluation)
- Cooperation with authorities
- Automated registration
Thanks for your attention

More information?

Meet us in the exhibition area or contact us via VFL.DK

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