

## Milkability milkflow data

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## Milk flow – genetic evaluation

Current routine evaluation:

- 1. lactation information:
- Results from questionnaire system (scale 1-9)  
(DK; SE and FI)
- TruTest meters (DK)
  - Flow expressed as g fat+protein/minute –  
average flow day 30-240

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## Milk flow – genetic evaluation

### Current routine evaluation:

- Assume flow and results from questionnaire system is the same traits (genetic correlation found to be very high)
- Data from the two systems standardised to ensure genetic variance is the same.
- If a cow have registration from both the questionnaire system and milk flow – milk flow is used

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## Additional flow data available on national data bases

- Milkflow registered from "fixed" milk meters
  - AMS
  - CMS
- Data from such systems is today transferred to the national data bases in DK, SE and FI
- Use of more flow data can increase the reliability of EBV for cows and bulls.

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## Additional flow data from different equipment

| Denmark      | Finland         | Sweden  |
|--------------|-----------------|---------|
| Bau Matic    | Tru test meters | DeLaval |
| Dairy Master | DeLaval         | GEA     |
| DeLaval      |                 | Lely    |
| Lely         |                 |         |
| SAC          |                 |         |
|              |                 |         |

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## Holstein data milkability – registrations from 2012

|                | DNK    | FIN    | SWE    |
|----------------|--------|--------|--------|
| Questionnaire  | 11,241 | 11,758 | 12,438 |
| Flow - current | 75,331 | 0      | 0      |
| Flow – new*    | 8,383  | 221    | 3,392  |
| Total          | 94,955 | 11,969 | 15,830 |

\* Some cows have already milkability from questionnaire

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## RDC data milkability – registrations from 2012

|                | DNK    | FIN    | SWE    |
|----------------|--------|--------|--------|
| Questionnaire  | 1,498  | 14,098 | 13,435 |
| Flow - current | 9,299  | 0      | 0      |
| Flow – new*    | 443    | 408    | 1,919  |
| Total          | 11,240 | 18,918 | 15,354 |

\* Some cows have already milkability from questionnaire

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## Jersey data milkability – registrations from 2012

|                | DNK    | FIN | SWE |
|----------------|--------|-----|-----|
| Questionnaire  | 1,818  | 0   | 142 |
| Flow - current | 15,610 | 0   | 0   |
| Flow – new*    | 462    | 0   | 52  |
| Total          | 17,890 | 0   | 194 |

\* Some cows have already milkability from questionnaire

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## Genetic parameters – example Holstein

- Heritability
  - 22% Questionnaire system
  - 34% Milk flow one observation
  - 43% Milk flow average of 4 observation

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## Challenges with different equipment

- Ensure data quality ( $h^2$  is the same) and the same trait is measured.
- Standardize to ensure genetic variation for data from different meters is the same

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## On-going work – flow from "fixed" milk equipment

- Test runs – evaluation including new data
- Validate results
- Routine evaluation goal May 2014

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