vit informiert

Official Milkrecording in Germany

Dr. Kai Kuwan
Official Milk Recording in Germany

- Official milk recording is independent from industry (A.I., herdbook)
- Organized by regional associations (13)
- Supervised by the government (until now)
- Participation is voluntary
  - ~ 70.0 % of dairy farms owning 85.0 % of all dairy cows
  - Depend on area, in the south lower, in the north higher

- Data processing by milk recording organizations themselves (5) or vit
- Main data source for herdbook and genetic evaluations
vit: Data Processing for Milk Recording

- for 1,650,000 Cows/month
  = 75% of all officially milk recorded Holstein cows
ICAR systems applied

- Depends on organization
- Herd test day is labelled by recording system
- Individual cow test day is labelled by recording system
- Recording system is described by
  - Method (A,B,C)
  - Scheme (combination of type of milk recording and sample taking)
  - Recording Interval (weeks)
  - Frequency of milking per test day
Planning of recording

- Depends on organization
- For better utilization of laboratory some organizations use test day plans
  - For Example: At begin of the year all farms are randomly distributed to 4 groups. Every group has to be tested in given calendar weeks

| Week of the year | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | ...
|------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|
| Group            | 2 | 3 | 1 | 4 | 2 | 3 | 1 | Holidays | 4 | 2 | 3 | 1 | 4 | ...

- Farmer is informed about test day after last milking before start of test day
- All time the whole herd is tested
Data collection and sampling at farm

- by paper
- by pocket-PC-/PDA-software
- from farm PC’s (herd management software)
- Milking robots (AMS)
Data collection and sampling at farm

- All milk recording devices which are used in official milk recording have to be ICAR approved
  - TrueTester
  - Electronic TrueTester
  - Lactocorder
  - All kind of farm installed milk recording devices
- Equipment to determine the milk yield has to be calibrated every or every second year
- Connection of cow and sample
  - Barcode on bottle
  - Position of bottle in sample case
- Identification of cow
  - manually
  - Use of RFID devices or machine readable printing not in practice
Processing of yield and milk components data

- Directly after receiving
  - ~ 2 – 5 days after start of test day
  - Depends on logistic in milk recording organization

- ICAR reference methods are used to process the data
Calculations applied

- ICAR standard method of lactation calculation (TIM)
- Calculation method of daily yields from AM/PM milkings
  - Method of Liu et.al.
  - Method of Delorenzo and Wiggans
- Milk recording from AMS
  - Daily yield as an average of last 48 hours, starts with last sample
  - Lactation calculation with all milking records since last test day
    (if the percentage of missing data is to high – use of TIM)
  - Milk samples are taken for a minimum of 24 hours (standard method in AMS)
  - For daily yield milk components are a weighted average of the samples per cow
  - TIM to calculate milk components for lactation yield
Information to farmer

- via
  - Paper
  - Fax
  - Email attachment (pdf)
  - Download for herdmanagementsystem
    - Standardized format (ADIS/ADED)
  - Internet application
  - Smartphone app
Information to farmer

- Vit processes the DHI data 6 days a week
- Farmer can choose from more than 60 different lists
  - Herd summaries
  - Animal lists with current test
  - Animal lists with aggregated data (within lactation/year)
  - Lists with breeding values and conformation
  - Lists with udder health status and attention lists
  - Lists with energy status (urea)
  - Management lists for fertility, calving, etc.
  - Registration and check lists from I&R
  - Lists of young stock
  - Health data report
  - ........

- Yearly reports for animals and herd
Rules applied to have official record

Data processing according to:

- international rules (ICAR)
- national rules (ADR)
- additional request from clients (milk recording organizations)
What is ok, what is not ok

Okay:
- ICAR guidelines are the frame for milk recording
- Enough room to adapt the rules on national standards
- Often there are alternative methods in the guidelines

“Not okay” (personal point of view)
- ICAR guideline on missing results and range of daily test values has to be adapted to new technology (AMS)
Service & Daten aus einer Quelle