ICT and (new) Farm business management “a farmers perspective”

Guus van Laarhoven | 10 February 2011
Our Dairy farm in the Netherlands: features

Family Farm, since 1939.

Dairy farming in co-operation with my father. (63 years old)

- 85 dairy cows (MRY breed)
- 36 ha of grassland
- 10.5 ha of maize (fodder crop)
- Production of 620,000 kg milk/year
History of ICT on our dairy farm

- 1982: proces computer for concentrate feeding
- 1985: Pilot farm for testing a prototype management programme, IMAG-Wageningen University
  - Prototype IMAG developed into Argos and Uniform Agri
- 1991: Switched to Agrovision (MIS)
  - Integration of financial software
  - Perspective for automated input
- 2004: Started milking with AMS
- 2009: Experiments with remote sensing
  - Crop and soil fertility management
Why ICT on our farm?

- Personal challenge to lower costs (on concentrate use)
  - Linking concentrate use on milk production
  - Accurate distribution of fertiliser and manure
  - Insight in cow health
- Saving time in administration
- Flexible time management

→ Conclusion: more flexible and less labour, less costs
Goals dairy management (MIS)

1. Data collection (business, technical, legal, complementary info)
2. Data exchange
3. Data analysis
4. Benchmarking (dutch dairy farmers)
Data characteristics

1. Milk production and quality
2. Breeding
3. Health and medicine use
4. Feeding
5. Fertiliser and manure use
6. Cattle registration
7. Pasture management
8. Financial administration
Daily use of ICT
Automized input

Direct farm data (through process computers)
- Milk production
- Milk quality (AMS)
- Concentrates intake

External data (through the internet)
- Breeding data
- Milk quality (dairy company)
- Medicine use (veterinarian)
- I&R information
- Invoices
Manual input

1. Breeding information (inseminations, bulling)
2. Health treatments
3. Fertiliser and manure quantities
4. Roughage quantities
5. Irrigation quantities
6. Supply and discharge of cattle
7. Stocks
8. Invoices (partially manual)
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Licentienr.: 19635.1
C. van Laarhoven
Loonse Molenstraat 45
5175 PS LOON OP ZAND

Daginvoer opmerkingen
Koeien aan het kalven: 2
Controle op 3 weken: 5

Procescomputer

Informatie
MPR 17-1-2011 BSK 33,8 NO 1995 V 4,36% E Tankmelk 23-1-2011 5127 Kg V 4,32% E 3,71%
Lst.uitwisseling Webservices Veehouderij 25-01
Er zijn 91 vrije levensnummers aanwezig

Memo's

Internet sites
www.z-factuur.nl
Friesland-Campina
Bankieren
Brameco-zon
Biomassa productie over de periode van 18 June t/m 24 June 2009

Gemeten in: kg/ha/week
Dutch colleague dairy farmers: an impression

Need for data analysis and benchmarking seems high, however

- Low extensive use of ICT and administration tools
  - Complicated
  - Limited to legal requirements (I&R, accounting)
  - Family partner/external advisor

- Time spent on input is very limited

- Farmers <35 are better users of ICT
Situation in arable farming

- Development in precision farming
- Development in remote sensing and satellite information
  - Crop growth,
  - Water management,
  - Soil fertility
  - Pest control
- Data exchange in the Agro Food chain with supply and retail
Needs

- More automated input
- Easy access to information: where ever, when ever
- Customized information (users perspective),
  eg. alerts
  eg. innovations
  eg. legal developments
- Crop related aspects better integrated with MIS
Dreams

On the spot management and business advice:

- Real time information on crop production and nutritional values

- Real time benchmarking/data exchange with co-farmers