New dynamic feed evaluation system, where the feed value (energy, AAT and PBV) is dependent on the ration and level of production.

What makes NorFor Plan so special?

NorFor makes use of the latest knowledge in the following areas:
- Nutritional composition of the feed
- Degradable and digestive processes of the feed
- Mutual effects of the nutrients
- Microbial synthesis in the rumen and large intestine
- Utilisation of nutrients
- Assessment of feed intake and feed structure/chewing time

General facts about NorFor Plan

- Developed in Norway from the AAT/PBV system
- Interactions between animal and feeds, also nutrient based and non-linear relations
- Digestibility depends on feed intake and dietary composition (rapidly degraded CHO/NDF)
- Four compartments:
  - Rumen
  - Small intestine
  - Large intestine
  - Intermediate metabolism

The model calculates

- Feed digestibility at actual feeding level
- AATp
- PBVp
- Net energy
- Starch to the small intestine
- Nitrogen in faeces, urine and milk
- Predicted milk and protein production
- Predicted feed intake

Input - Animal data

- Body weight
- Milk yield
- Milk composition (Fat, Protein and Lactose)
- Week of lactation
Diagram of the NorFor Plan

Input
Feed and animal

Structure/Fiber (chewing time)
Calculation of the cow's metabolism
Feed Intake (Filling value)

Output
Ration

Feed data
- DM %
- Crude protein, g/kg DM
- NDF, g/kg DM
- Starch, g/kg DM
- Crude fat, g/kg DM
- Ash, g/kg DM

Feed fractions in the AAT-model

Digestibility, %

Ash
Crude Fat
"Rest fraction"
Fermentation products
Starch
Crude Protein
NDF

Not degraded
Potential degradable

Effect of feed intake on AATp of the ration
Ration with 50 % concentrate

Effect of feed intake on energy value of the ration
Ration with 50 % concentrate

Feed intake, kg DM/day

FE in kg DM

2006-06-15
Feed norms and needs

FS 101
FS 102
FS 103
FS 201
FS 202
FS 203
FS 301
FS 302
FS 303

1. Technical Solution

1. Development of common
   - Collection of feed analyses
   - Feed table
   - Ration planning

2. Development of national clients
   - Denmark
   - Norway
   - Sweden

Conclusions

- One and the same system in all NorFor countries!
- NorFor-Plan will replace our present systems
- NorFor-Evaluation, a new tool for check-up rations
- Interactions between feeds and the animal will be considered in the new system
- NorFor system is based on today’s knowledge from Nordic and international research
- Rational tools will help consultants improve both efficiency and economy in the dairy production