Designs of pasture based farm systems

Innovative components for grazing systems

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Topics

- Challenges
- Innovative components
- Designs
Challenges for new designs

- High milk production with grass
  - High grass production per ha
  - Long grazing period whole day
  - Low grazing losses

- Flexible
  - Grazing plots at a distance
  - Grazing large herds
  - Grazing with milking robots
  - Grazing family herds

- Low cost price
  - Simple housing for winter
  - High milk production per ha
Innovative components

- Mobile milking
- Mobile feeding
- Mobile electric fence
- Mobile roof
- Outdoor bedded pack
- Family herd
- Regional feed centre
Mobile milking robot in pasture

service wagon
mobile milking parlour
Mobile feeding
Mobile feeding in bedded pack barn
Bedded pack barn in greenhouse
(Farm Havermans)
Mobile electric fence
Mobile roof

individuele / mobiele stal voor koeien
More space per cow whole year

Mobile shelter against sun and rain
Outdoor wintering path (France)
Family herd

Dairy cattle grazing in front

Dairy cattle and dry cows

Young cattle

calves
Central feed storage at industry area
Feeding TMR 3000 cows on 28 farms

Consequences of feed centre for grazing?
• day grazing with supplemental feeding easier!? 
From components to grazing designs

- Mobile milking
- Mobile feeding
- Mobile electric fence
- Mobile roof
- Outdoor bedded pack
- Family herd
- Regional feed centre

- Family herd
- Grazing ‘year around’
- Grazing 1000 cows
How to graze a family herd?

- Calving in spring
- Not pregnant young cattle graze after others
- Others: dairy, dry, heifers, calves in one group
- Combination of continuous grazing and stripgrazing
15 April
15 May
15 June
15 July
15 August
15 September
15 December
New designs

- Family herd
- Grazing ‘year around’
- Grazing 1000 cows
Stripgrazing year around with compost bedded pack

Mobile electric fence

Outdoor bedded pack

Mobile feed bunch

Mobile milking system

Grass

Turnips

Winter Wheat

Stripgrazing
New designs

- Family herd
- Grazing ‘year around’
- Grazing 1000 cows
Cows central; 4 farms each 250 cows

Grazing with mobile milking and feeding
Cows on different farms in region (decentral)

- Dairy village
- Regional dairy farms
- Feed transport
- Cattle transport
- Transition centre
- Feed from arable farmers
- Feed centre
- Milk
Moving around in nature

High milk price for nature milk
Discussion

- Which ideas do you like or not like?
  - Mobile milking, feeding, electric fence, roof
  - Simple housing: outdoor bedded pack
  - Family herd
  - Year around grazing: stripgrazing on grass, winterwheat or turnips
  - Grazing large herds
    - Cows central and mobile milking and feeding
    - Cows decentral with regional feed centre
    - In nature

- Possibilities for coöperation?
  *(project “Amazing grazing”)*

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Amazing grazing

- New project; first year from June 2012 until June 2013
- First year focus on inventory of innovations
  - Grazing systems more than 150 cows
  - Total farm design of grazing and simple housing
  - With farmers, advisors and research international
- Next years implement innovations and develop knowledge