More Milk from Less Farms!

Dairy Farming Perspectives in Europe

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A Major Challenge

Healthy food and nutrition for 9 billion people in 2050 within the capacity of our planet
Yesterday more Crops, Tomorrow more Milk

20th century
Green Revolution

21st century
White Revolution

It's a milk revolution.
Perspectives for Dairy

- Milk contributes to food security and livelihood
- Demand for milk will increase
- Milk is harvested daily (60% smallholders)
- Ruminants value feed (crops, grass, by-products) to food
- Grazing contributes to biodiversity and landscape
- Environmental impact is criticized
- Health and welfare care is critical
Making of the Milk: New Challenges
Milk Production in NL - 2104

- Animal productivity: 8,000 kg/cow/yr
- High milk density: 14,000 kg/ha
- High grass and forage productivity
- High input of fertilizers and concentrates
- Housing: 30% complete indoor
- Convenant /Incentives to sustain outdoor grazing
Milk Production in NL - trend

- Since 1960 production doubled, with same number of cows
  - Average 80 cows per farm (8 in 1960)
  - Labour production: 150 kg/h labour (5 in 1960)
  - Methane emission: 15 g/kg (17.5 in 1990)
  - N-efficiency milk/feed: 28 % (17% in 1990)

- Trade-offs: reproduction, mastitis, productive life
Abolition of EU milk quota system
What makes the difference?
Integrated Approach: Livestock Farming with Care

M.C.Th. Scholten, I.J.M. de Boer, B. Gremmen, C. Lokhorst; Livestock Farming with Care: towards sustainable production of animal-source food
Topics to be addressed

- Optimizing land use for feed production
- Manure treatment: recycling and refinery
- Precision Farming to support integrated management on individual animal level in herds
- Production Life Time
- C and H2O Footprint
Thanks!