


# The effect of grass intake on the farmer's income

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# Grazing in Europe

- Throughout Europe, forage is the main feed for dairy cattle
-  Working Group Grazing



# Grazing in Europe in 2010

- Germany: large variation, decreasing
- Switzerland: 70-80%, decreasing
- Poland: variation, decreasing
- Czech Republic: 20%, slight increase
- Slovenia: 25%, stable or decreasing
- Portugal: 50%, increasing
- Spain: 0-20%, slow increase
- Greece: 15%, slow increase

# Grazing in Europe in 2010

- Norway, Sweden, Finland: welfare legislation: six weeks to four months outside, decreasing
- Denmark: 35-45%, decreasing
- Ireland: 99%, staying consistently high
- UK: 95%, decreasing
- The Netherlands: 75-80%, slow decrease
- Belgium: 95%, decreasing
- Luxemburg: 75-85%, decreasing
- France: large variation, decreasing

# Grazing in Europe in 2010

- In the north and northwest, grazing is practised more often than in the south and southeast
- The percentage grazing is decreasing rapidly



# Reasons for less grazing



- To control rations and optimise grassland utilisation
- Increased herd size
- Increased use of automated milking systems
- Small grazing surface
- Reduced grass growth in summer time
- Need to reduce mineral losses
- Labour efficiency

# A matter of public concern

- General public appreciates grazing animals in the landscape
- Biodiversity of the landscape increases
- Society associates grazing with animal welfare
- Part of the culture

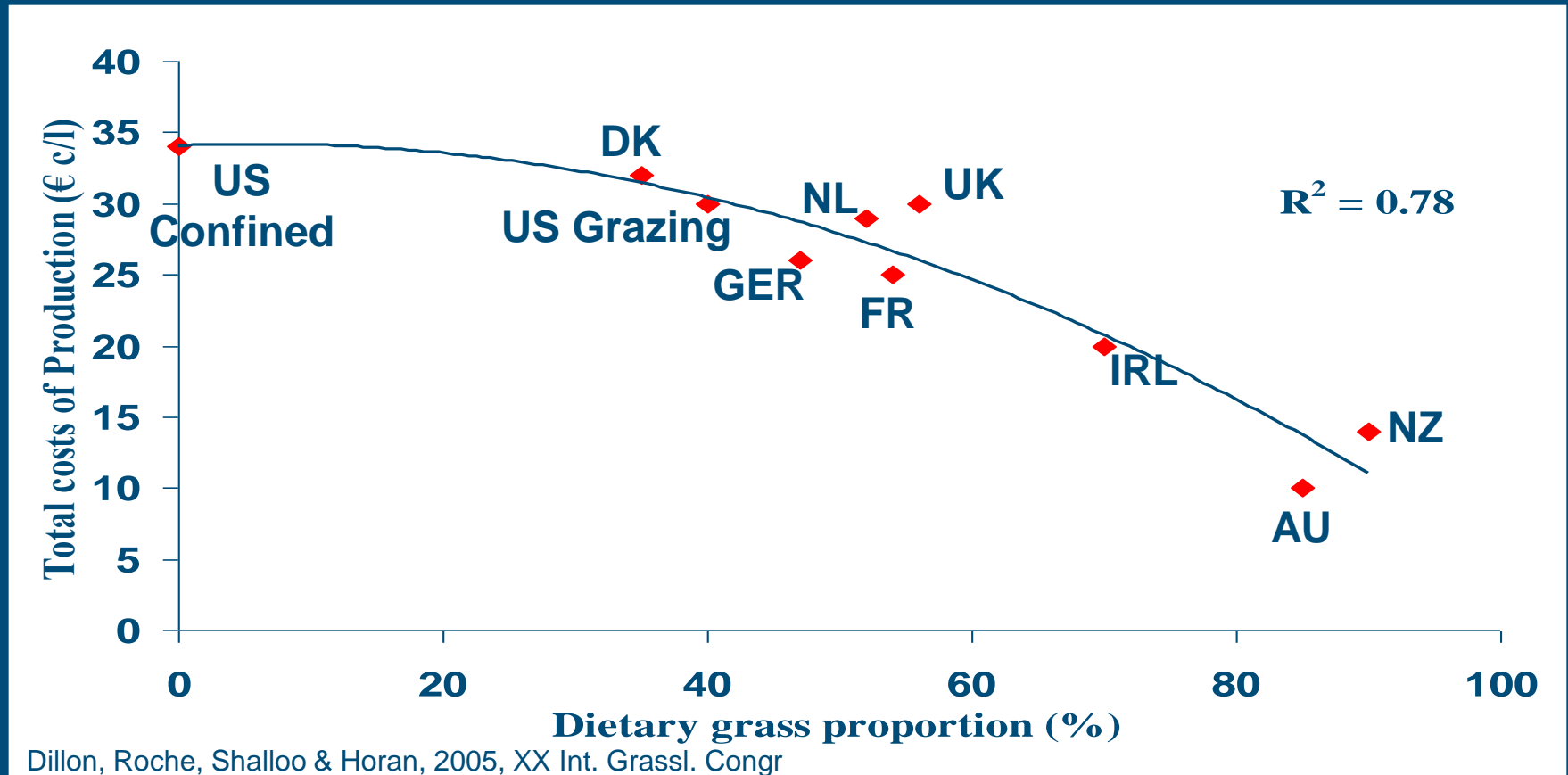


# But what about economics?





# The relationship between total costs of milk production and grass proportion of the diet



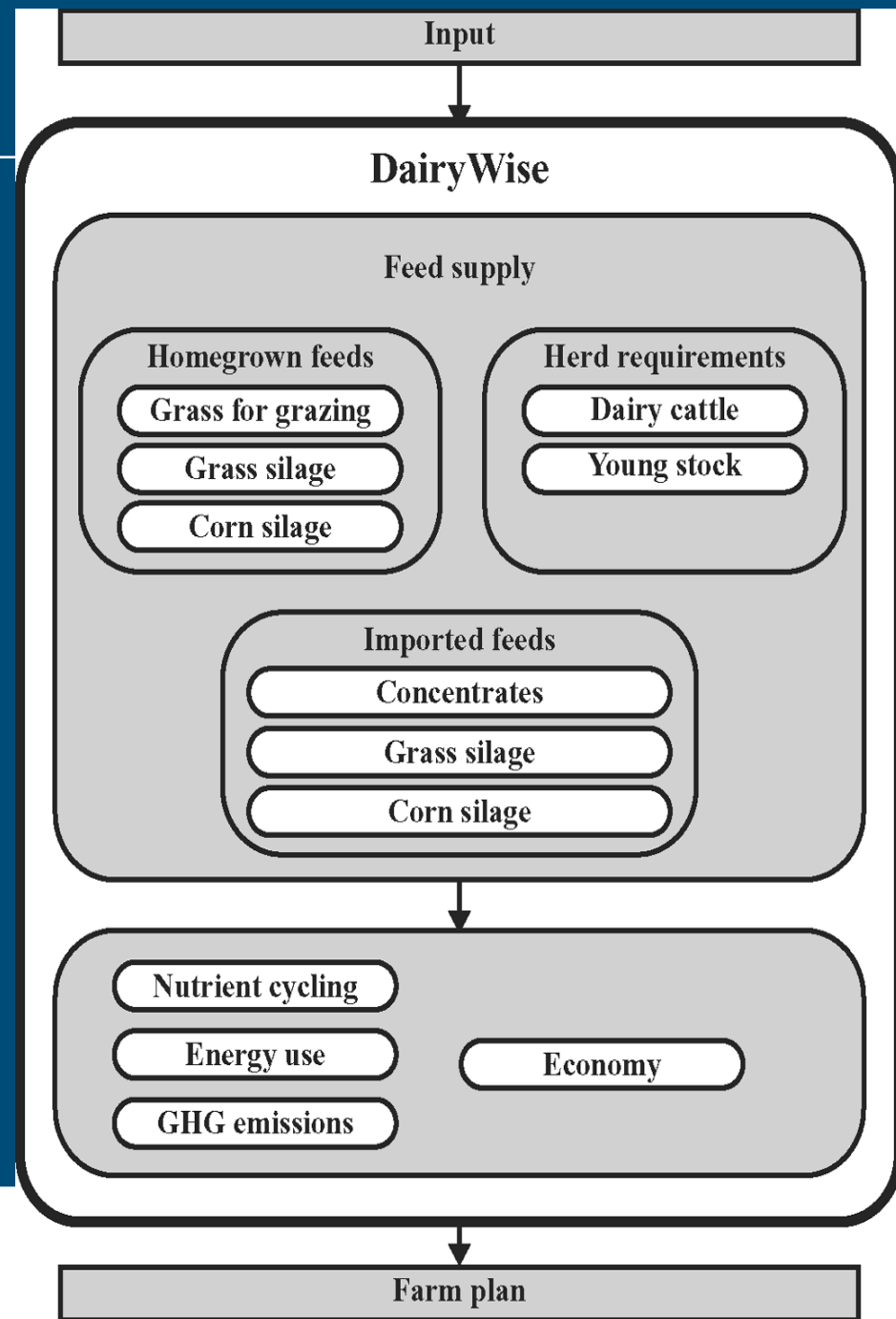
# But what about economics under less favourable conditions?

- Aim: to study the economics of grazing and zero-grazing for farms with less favourable conditions for grazing:
  - Automatic milking
  - Small grazing surface (25% instead of 75%)
  - Large herd (150 animals instead of 75)
  - High milk yield per cow (9,500 instead of 8,000)

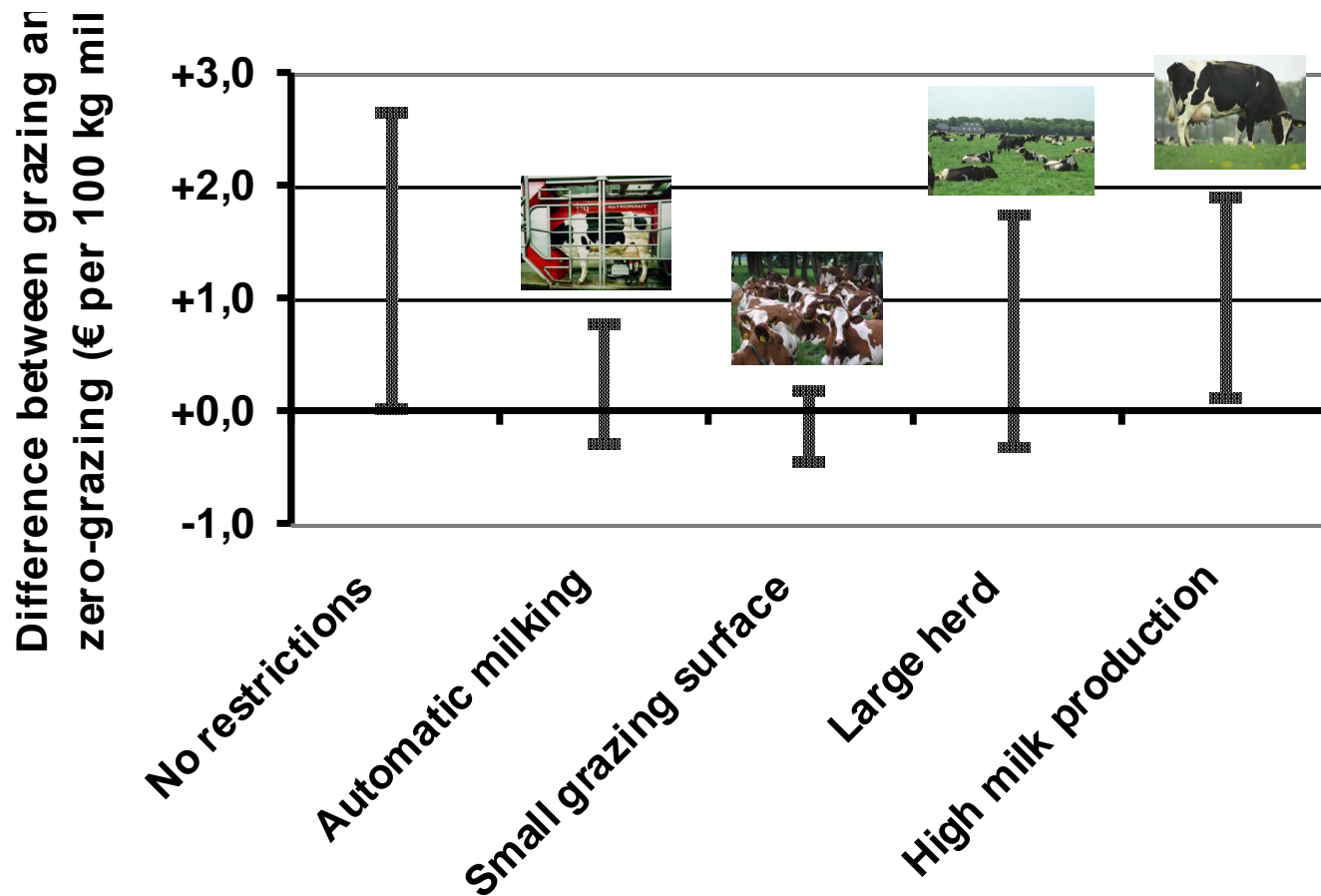


# Methods used

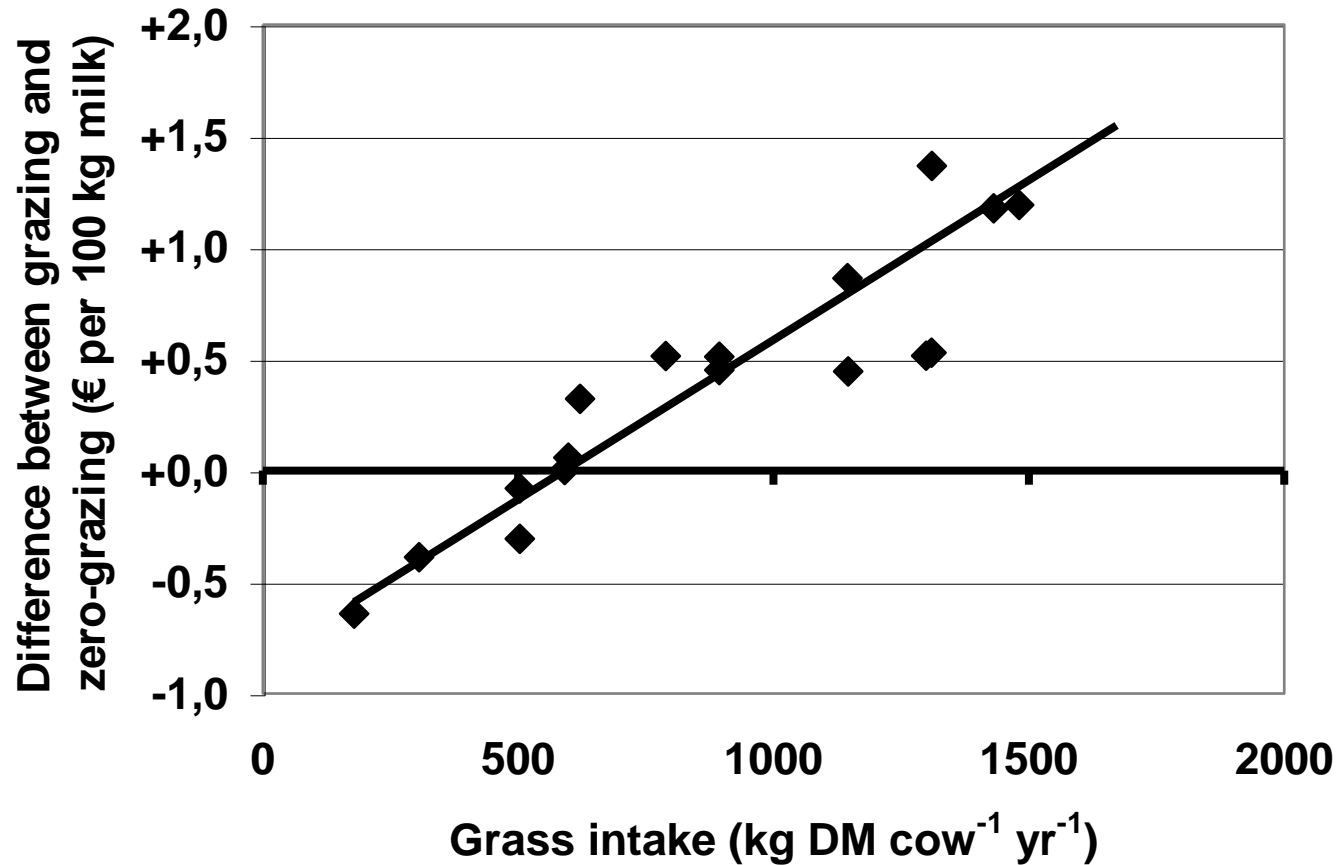
- DairyWise: an empirical model that simulates technical, environmental, and financial processes on a dairy farm
  - FeedSupply model
  - DairyHerd model
  - GrassGrowth model



# Economics of grazing



# Effect of grass intake on income



# Conclusions

- In general grazing is economically more attractive than zero-grazing
- The only exception is when the available grazing area is too small (grass intake less than 700 kg DM cow<sup>-1</sup> yr<sup>-1</sup>)
- The more grass the cows eat in the pasture, the larger the income profit
- Economy is not the most important influencing factor for grazing in northwest Europe

# If economy isn't, what is?

- The Netherlands: on-farm participatory research on 60 dairy farms
- In the end, personal preferences, experiences and habits of the farmer will be decisive in the choice between grazing and zero-grazing.



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