



# Rumen physiological studies

## Aim

- Effect of:
  - roughage quality
  - concentrate composition and allowance
  - additives
- On rumen parameters:
  - pH
  - volatile fatty acids
  - utilisation of nutrients

## Lay out

- Latin square:
  - 2 to 6 treatments
  - 2 to 6 rumen fistulated dairy cows
  - 2 to 6 periods (3 weeks)

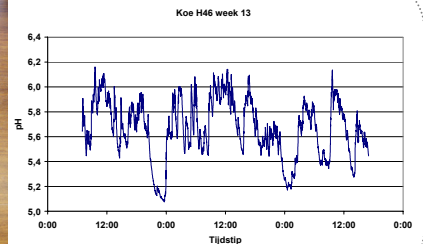


## Execution

- Rumen physiology:
  - sampling of rumen fluid
  - continuous measurement of pH
  - rumen contractions
  - passage and absorption
- Rumination and general activity
- Others:
  - DM intake basal diet and concentrate
  - milk production and weight
  - milk composition
  - faecal score and composition

## Observations

- Samples of rumen fluid:
  - pH
  - volatile fatty acids
  - ammonia
  - markers
- Continuous pH measurement
  - every minute
  - time pH < 5,5
- Rumination activity:
  - every 2 hours



## Results

