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High-quality pasture for horses – means to improve management & utilization

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Is part of the: “High-quality forages for Horses” –project which is conducted in MTT in years 2006-2008

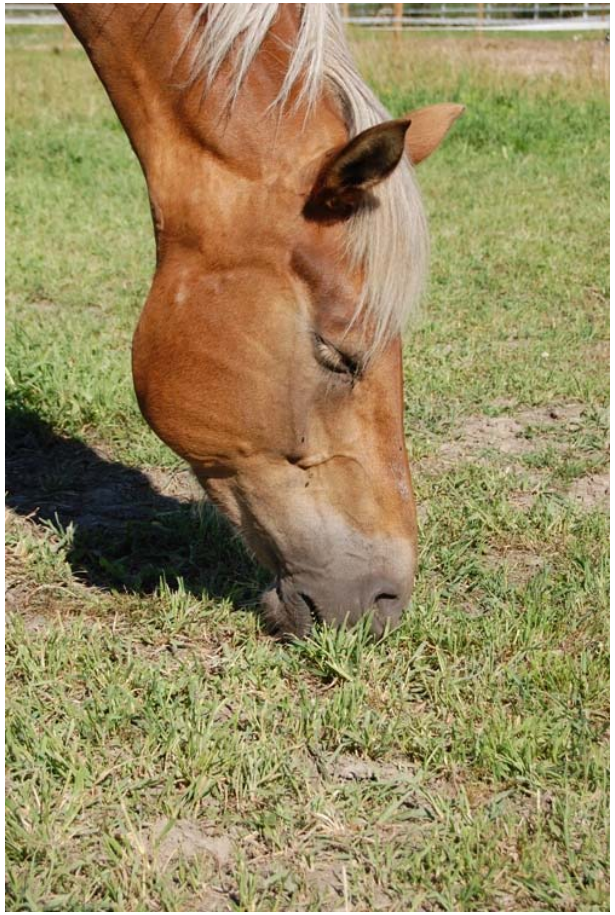
Introduction

- Pasture is main – and also often only feed for horses on grazing season
- It is economic and promotes the welfare and health of horses
- Sufficient and stable feed production is important to ease the management of pastureland
- The use of pasture for horse feed could be much more efficient in Finland
- The grazing season is 120-130 d for cattle, probably longer for horses

Objectives

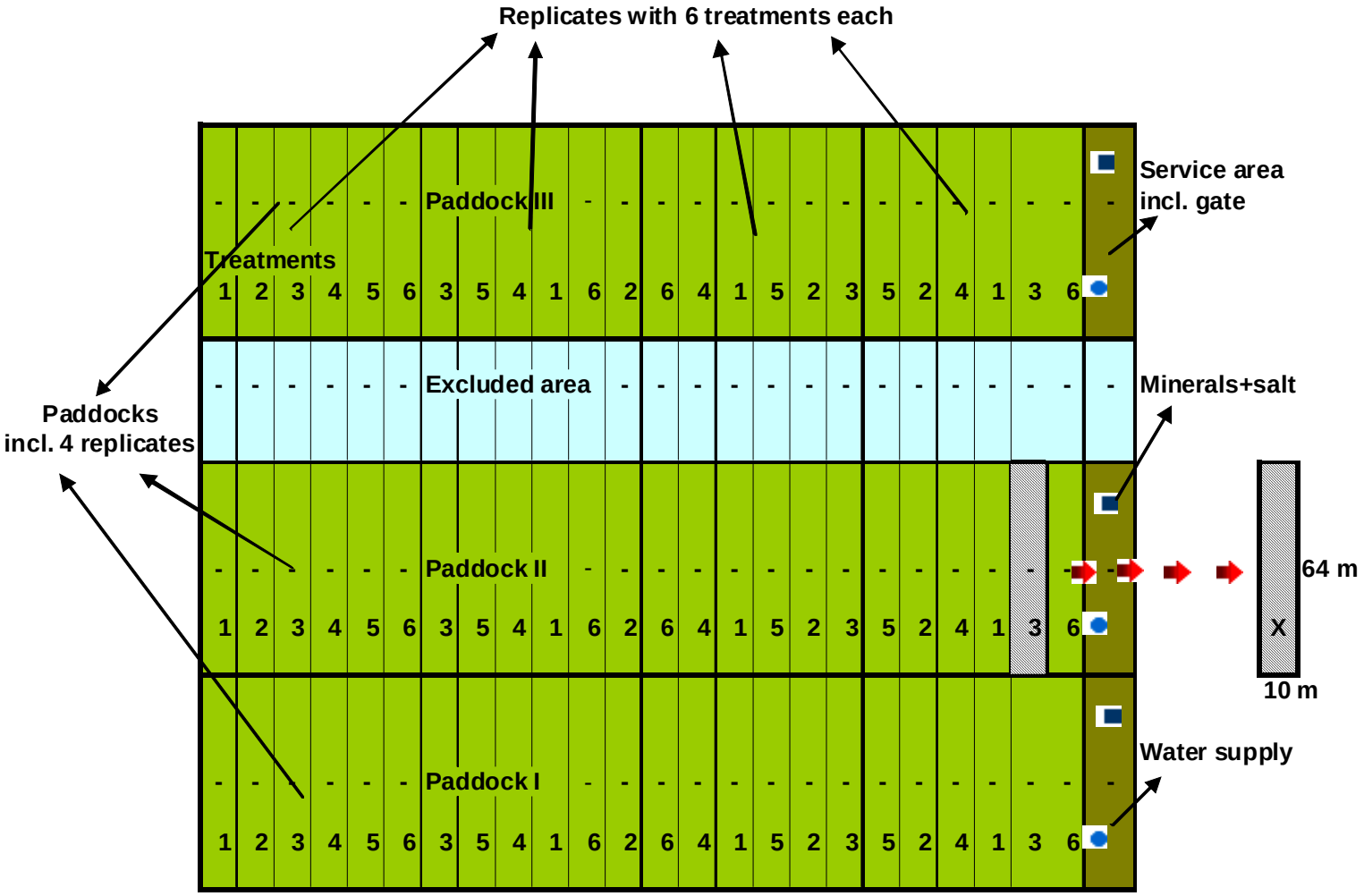
- Study the suitability of different grasses in equine pastures
- Study the differences in herbage yields between grasses during grazing period
- Determine chemical and botanical composition of grass yield
- Determine animal preferences of different grasses in equine pastures
- Evaluate the effect of grazing on the yield and durability of different grasses
- Obtain basic information on sizing and managing grazing areas

Material and Methods



- 6 different grasses and grassmixtures were sown on the experiment
  1) Timothy (*Phleum pratense*)
  2) Meadow Fescue (*Festuca pratensis*)
  3) Tall fescue (*Festuca arundinacea*)
  4) Timothy + Meadow Fescue
  5) Timothy + Tall fescue
  6) Tall fescue + Kentucky bluegrass (*Poa pratensis*)
- All six treatments were in four replicates in three paddocks

Grazing trial arrangements



1. Timothy
2. Meadow Fescue
3. Tall fescue
4. Timothy+Meadow fescue
5. Timothy+Tall fescue
6. Tall fescue+Kentucky bluegrass

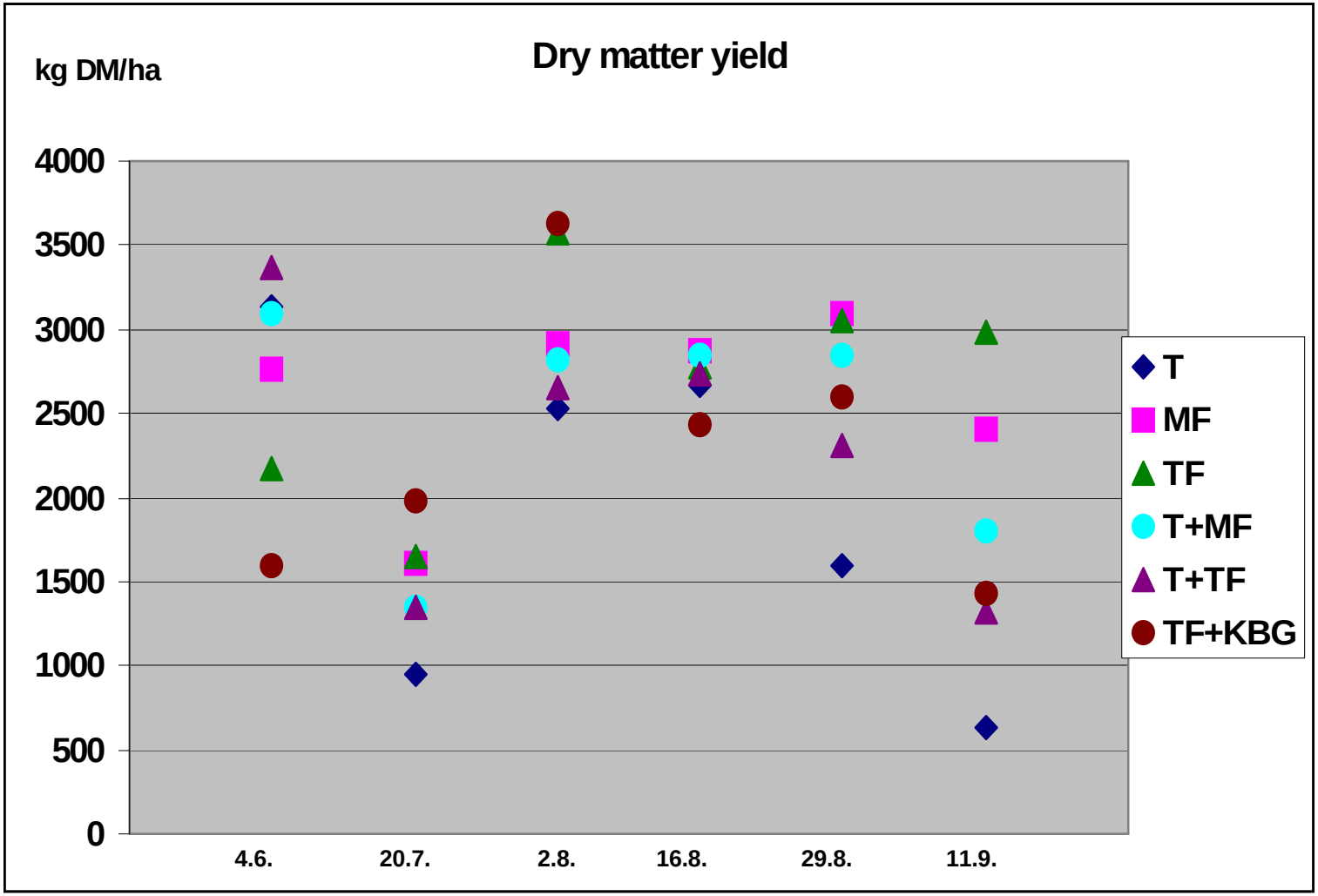
Measurements and sampling

- Herbage mass before and after grazing by Haldrup experimental harvester
- Sward height before and after grazing; grass plate and grass stick
- Botanical composition; plant species, weeds and dead grass
- Chemical composition
- Fructans from Timothy, Meadow Fescue and Tall fescue
- Grazing behaviour

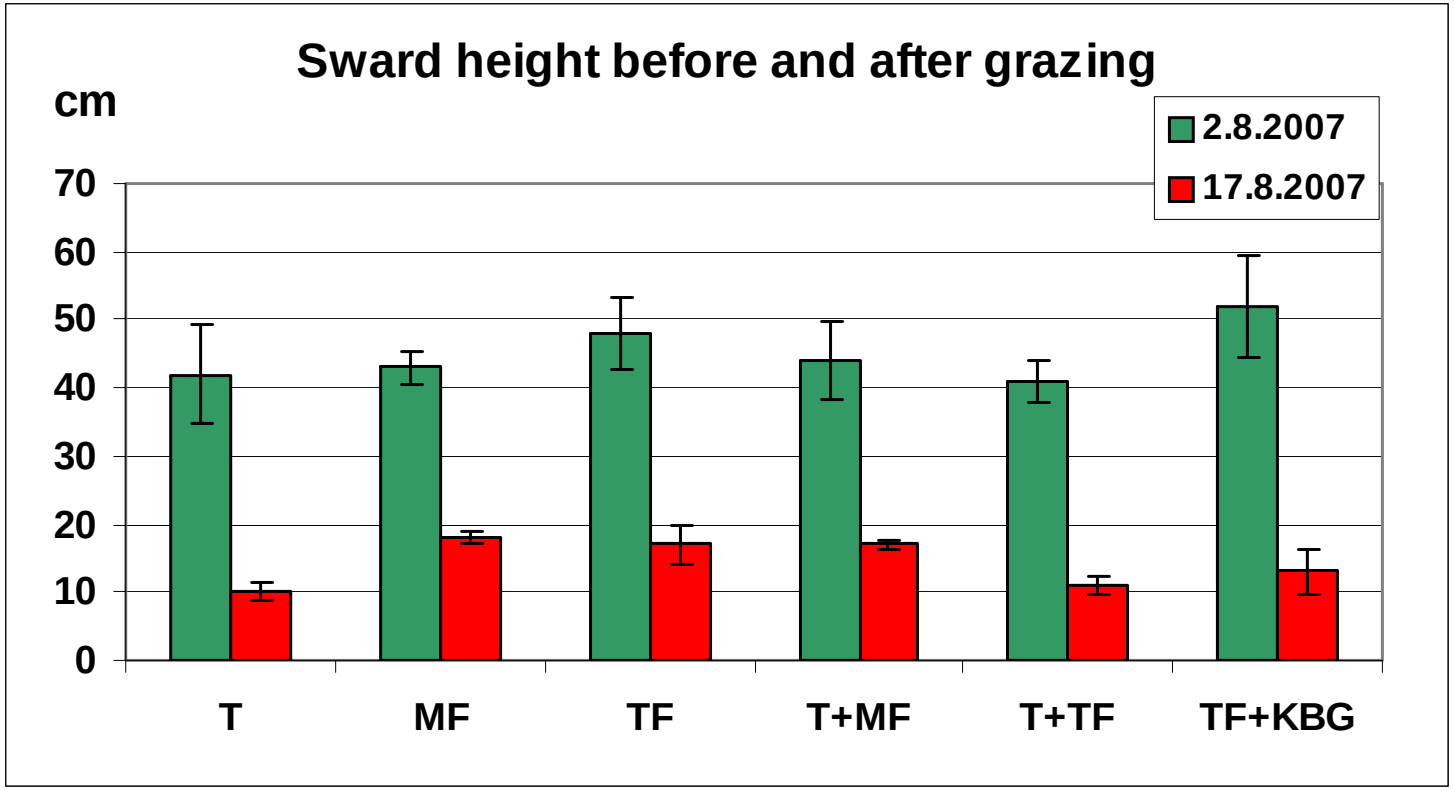
Pre-harvest and grazing

- Silage from paddock I and II on 15.6.
- Dry hay from paddock III on 4.7.
- Grazing started in paddock I in 20.7.
- Grazing lasted until 20.9.
- Paddocks I and II were grazed two times and paddock III only once
- Each paddock was rotationally grazed for two weeks by 10 finnhorse mares

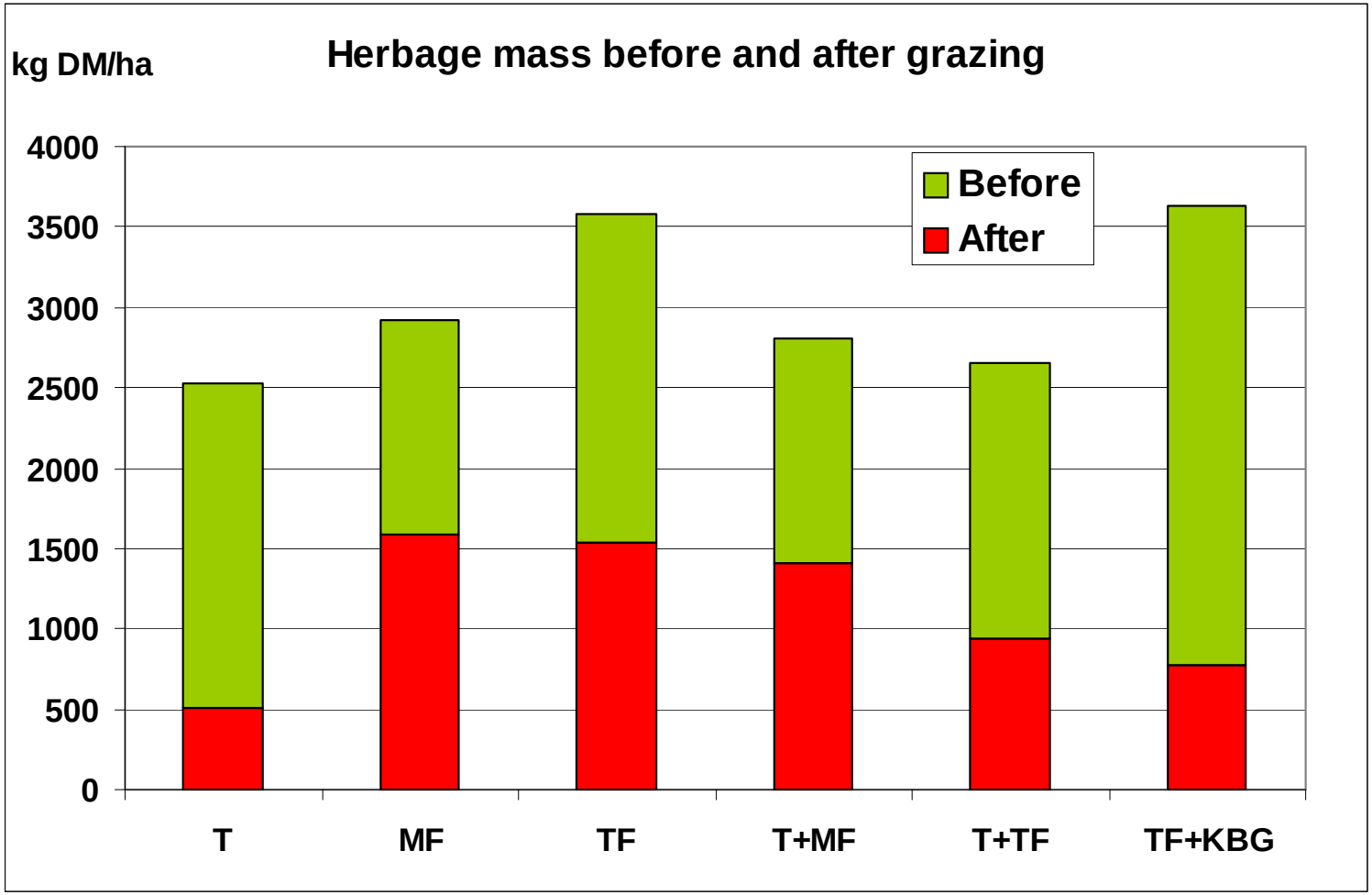
Dry Matter Yield



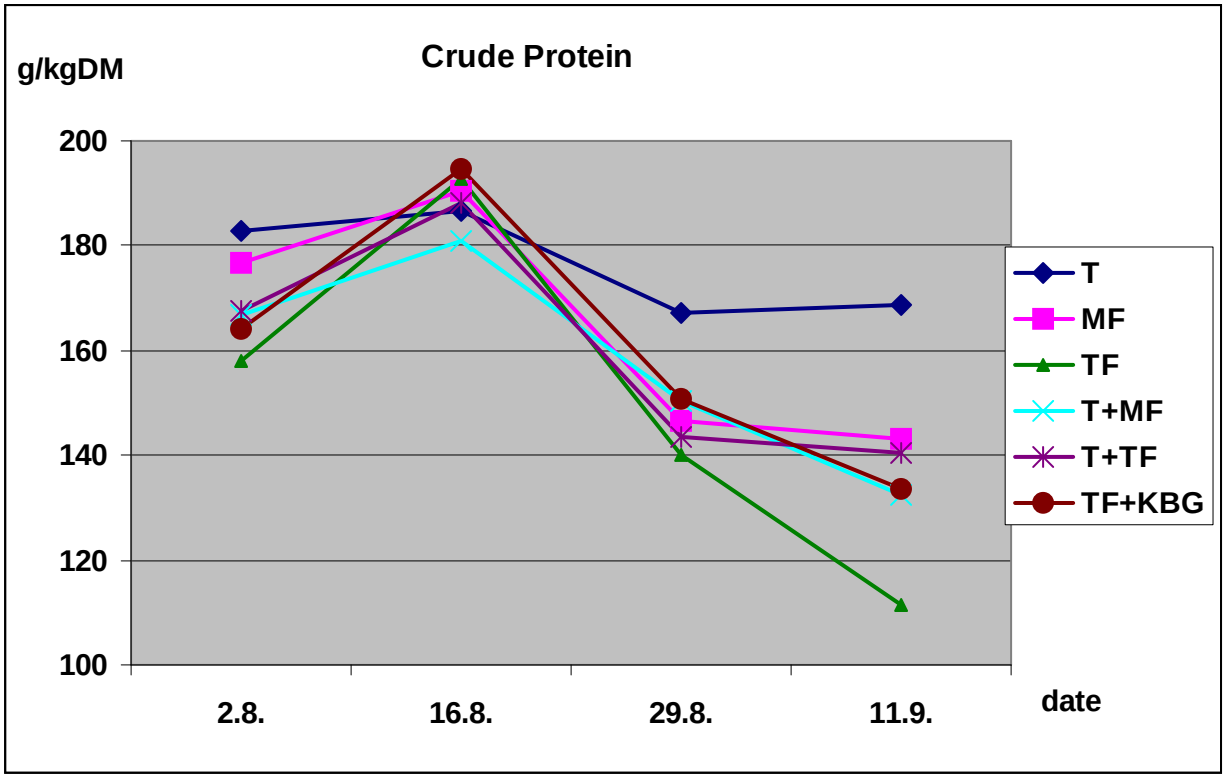
Sward height



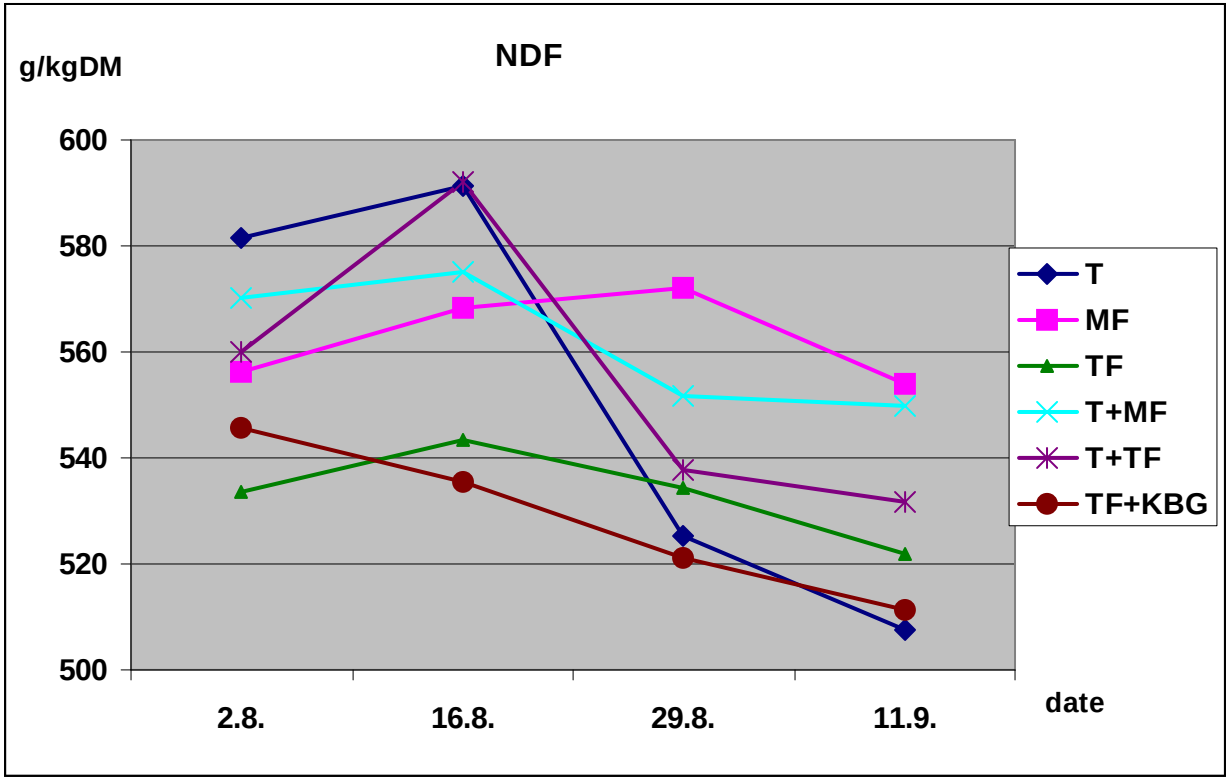
Pasture utilization



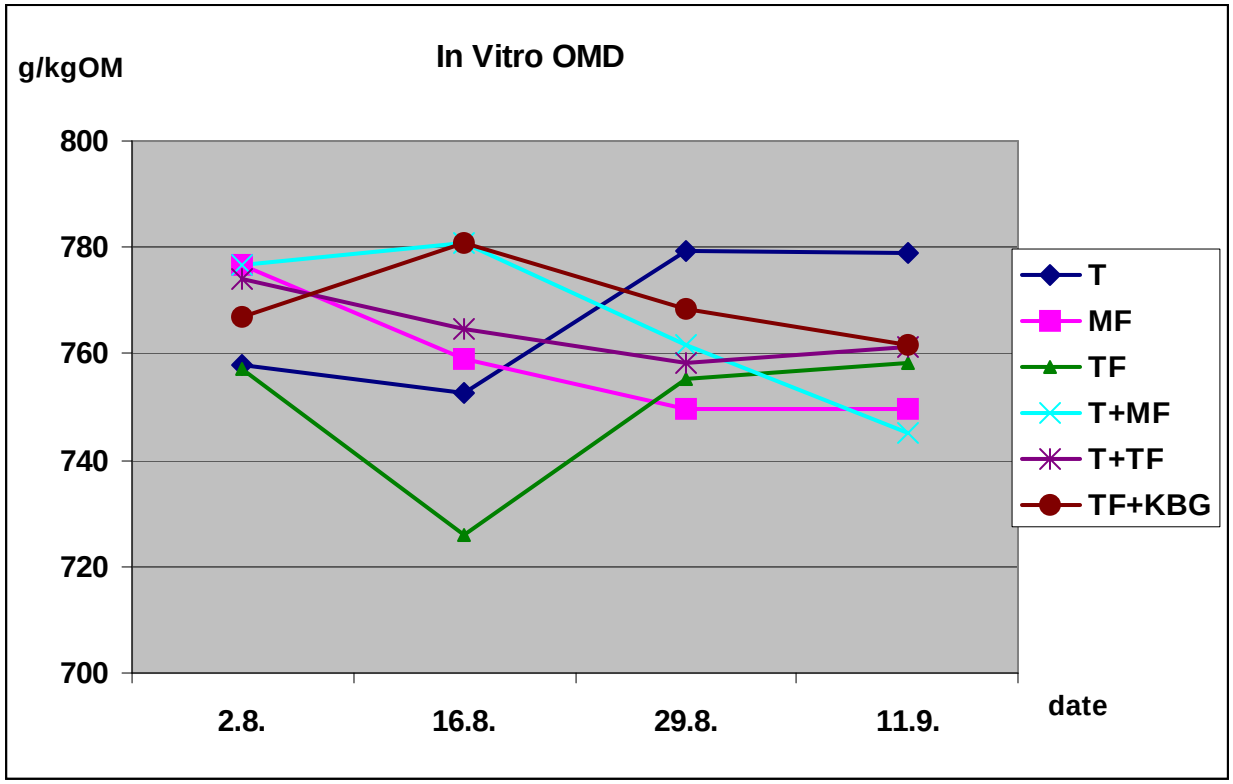
Crude Protein



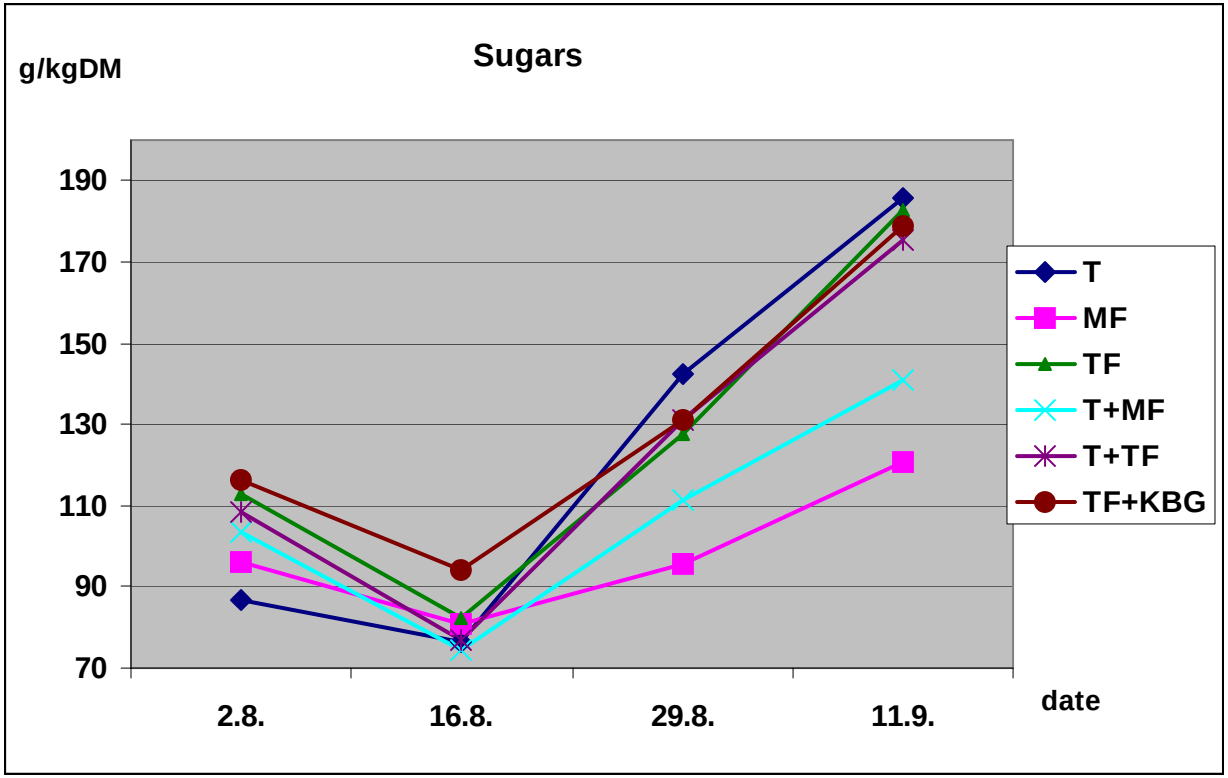
Fibre content



Digestibility

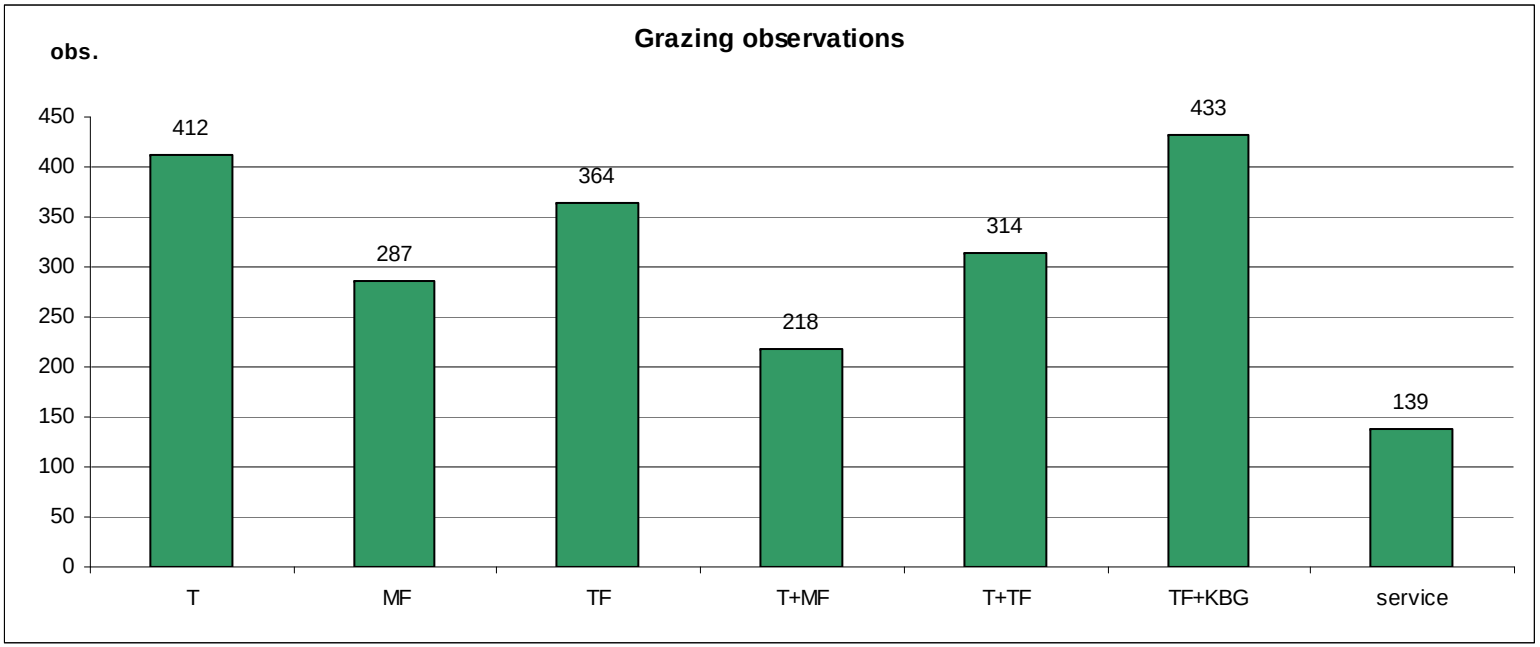


Sugar content



Preferences

- In the basis of behavioural observations the horses preference was for timothy, tall fescue and tall fescue + kentucky bluegrass mixture
- The results based on grazing behaviour were supported by results obtained from yield assesments before and after grazing



Preferences

- This experiment covered only the latter half of the grazing season – things can be different this summer
- Effects of different parameters (composition, yields, group behaviour etc.) must be evaluated when more data is recieved

Conclusions

- Timothy had biggest variation in herbage yields over grazing season
- Sugar content started to rise at the end of the summer, rise was most moderate in MF
- Digestibility was rather constant through season
- Horses preferred timothy, tall fescue+kentucky bluegrass and tall fescue over other grasses
- Grazing behaviour observations seems to give valuable information from grass preferences

Thank you for listening…

Any questions?