Decision Support Tools for grazing

EGF Working Group Grazing, 3 June 2012

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Decision Support Tools and Indicators for Grazing in the Netherlands

- Introduction and aim
- Methods
- Results and discussion
- Conclusions
Most dairy companies stimulate grazing

Discussion changes:
‘to graze or not to graze’ → ‘how to graze’
Solution; Decision Support Tools and Indicators for Grazing

- Operational management
  - Simple
  - Robust
  - Appealing

- Simple dashboard tool?
- Key figures/indicators for grazing? → milk recording
- Aim is to stimulate and quantify grazing!
Methods

- Inventory special needs farmers
  - Advisors, farmers and research (150 persons national and international, e.g. Netherlands Society for Grassland and Fodder Crops, EGF, IFCN, ...)

- Inventory available tools and hardware
  - Operational, tactical, strategic

- Discussion in advisory board

- Prioritization (9 items)

- Pilot test with stakeholders
Inventory grazing

- What are the main issues with respect to grazing for dairy farmers?
- What information is needed to facilitate grazing?
- What is already available?
Results; main concerns I

- Weather
- Maintaining a stable milk production
- Stay in control (of grazing)
- Labour input (time and attention)
- Management of grazing
Results; main concerns II

- Herd size
- Introduction of AMS
- Grass intake
- Grass yield
- Economics

- Key indicators for grazing necessary
- Combine in Decision Support Tool for Grazing
Examples of tools

- Grazing indicators operational
- Grazing indicators tactical
- Operational tools
- Tactical tools
- Hardware
The real issue?

- Lots of ideas and possibilities
- No applicable standard for NL
- Advisory board
- Prioritization
A: Weather, grass growth, grass intake and milk production

- Variation in weather conditions
  - Effect on: quality, growth and palatability/taste
  - Grass intake
  - Milk production

- Predictability of grass growth and intake
B: Labour input, planning and control

- Difficult planning -> forced choice (what should I do now?)
  - No choice or automatic choice
- Amount of labour -> time-related work
To graze or not to graze, what is profitable? -> confirmation

- Profits of grazing are not clear
- No indicators
D: Automatic Milking

- Milking frequency may decrease, but milk production could remain stable
- Grazing is possible, however unknown to many farmers
- Zero grazing feels safe
No headache with grazing management!

- (A) grass growth should be predictable
- (B) support decision or avoid choice
- (C) clarify economic difference between grazing and zero grazing
- (D) gain experience and increase knowledge with the combination grazing and AMS
Indicators and tools for grazing

1. Grass growth per ha per day
2. Flowchart grazing
3. Grass intake (operational tool)
4. Feed energy production or efficiency per ha (kVEM/ha)
5. Costs per kg DM per day per forage species
6. Benchmark (of indicators)
7. Adjustments to change, e.g. weather
8. Economic grazing efficiency (tactical)
9. Labour needs
Priority 1

- Grass growth (key marker)
  - DM growth day\(^{-1}\)
  - Expected
  - Weather (forecast?)

- My Grazing System (tactical tool)
  - Automatic
  - Tactical tool
Priority 2

- Grass intake
- Costs per kg DM
- Feed efficiency (kVEM/ha)
- Benchmark (grazing indicators)
Conclusion / take-home message

- Grazing indicators
  - have to avoid headaches
  - are identifiable or recognizable
  - have to be picked up together with stakeholders
- Labour gives many discussions, but no tools yet
  - For economics only a few tools
Discussion

- Do you recognise the real issues?
  - Weather, grass growth... etc
  - Support decision or avoid choice
  - Identifiable economics
  - Gain experience with AMS and grazing

- Suggestions for?
  - Grass growth as indicator
  - My Grazing System as a decision tool
Tools and indicators for grazing

Thank you!

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