## Decision Support Tools for grazing

#### EGF Working Group Grazing, 3 June 2012

Bert Philipsen, Agnes van den Pol-van Dasselaar, Gertjan Holshof, Michel de Haan



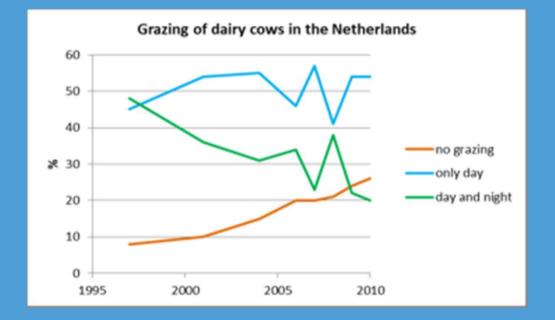
## Decision Support Tools and Indicators for Grazing in the Netherlands

- Introduction and aim
- Methods
- Results and discussion
- Conclusions





#### NL; every year less grazing



 ■ Most dairy companies stimulate grazing
 ■ Discussion changes: `to graze or not to graze' → `how to graze'

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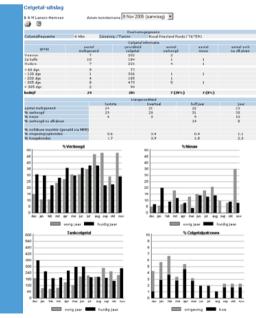
## Solution; Decision Support Tools and Indicators for Grazing

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





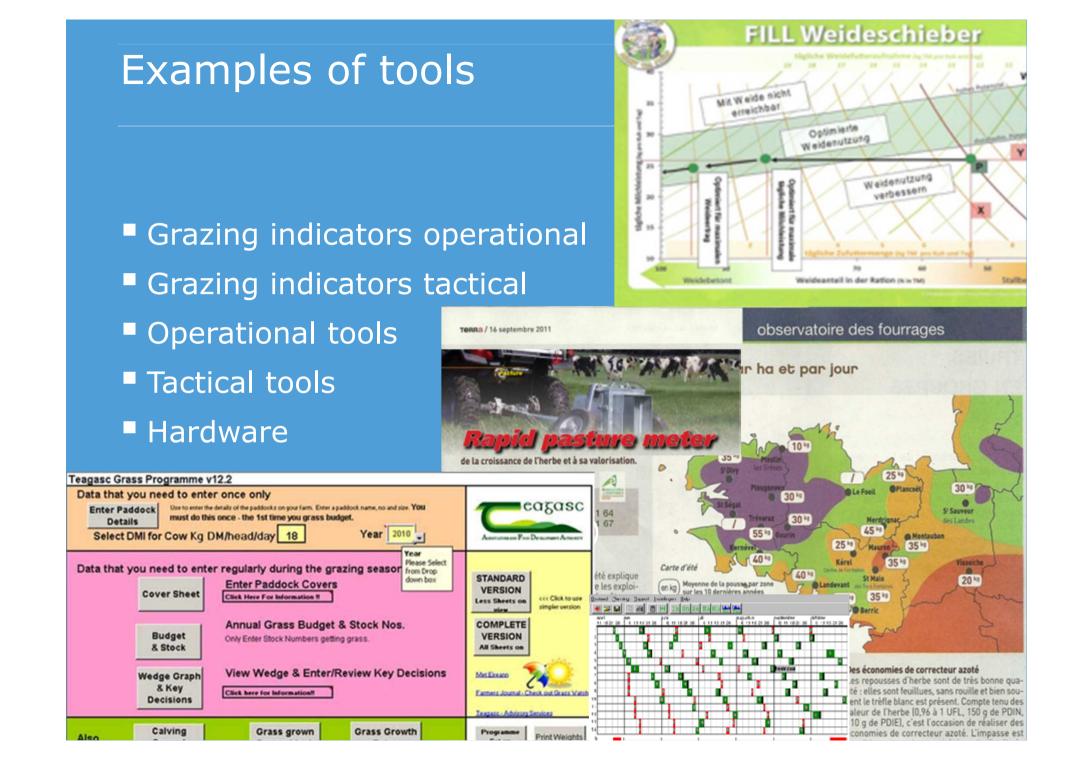
## Results; main concerns II

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



→ Key indicators for grazing necessary
 → Combine in Decision Support Tool for Grazing

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## The real issue?

#### Lots of ideas and possibilities

## No applicable standard for NL

Advisory boardPrioritization



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# 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 clearNo 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



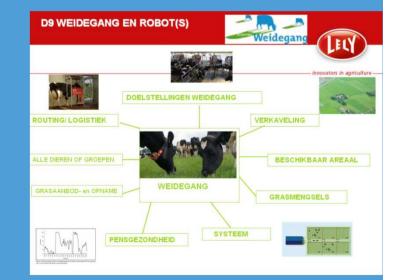
## Priority 1

Grass growth (key marker)

- DM growth day<sup>-1</sup>
- Expected
- Weather (forecast?)

My Grazing System (tactical tool)
 Automatic
 Tactical tool









Grass intake

Costs per kg DM

Feed efficiency (kVEM/ha)

Benchmark (grazing indicators)







Kritieke opbrengstprijs per kg melk Werkelijke opbr.prijs per kg melk

Saldo per kg melk

Bedrijfsstructuur							
	Uw onderneming	Referentie	Landelijk				
Aantal bedrijven	1	44	193				
Kilogram melkquotum	1.235.414	1.065.541	741.916				
Geleverde kilogram melk	1.219.795	1.055.740	732.074				
Vetpercentage	4,07	4.25%	4,42%				
Eiwitpercentage	3,45	3,47%	3,54%				
Gemiddeld aantal aanwezige koeien	137	122	88				
Kilogram melk per gemiddeld aanwezige koe	8.904	8.688	8.297				
Geleverde kilogram meetmelk	1.230.871	1.096.676	772.220				
Aantal hectare grasland	46	43,1	33,2				
Aantal hectare snijmais	20	15,9	11,1				
Voerprijs per 100 kg voer	€ 26,55	€23,47	(24,33				

## 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!

Bert Philipsen, Agnes van den Pol-van Dasselaar, Gertjan Holshof and Michel de Haan

