ON-FARM RESEARCH TO MAKE GRASS GREAT AGAIN

GRAZING WITH DAIRY COWS

Precision farming – using new technologies to optimise grassland systems

18/9/2019 Haus Riswick

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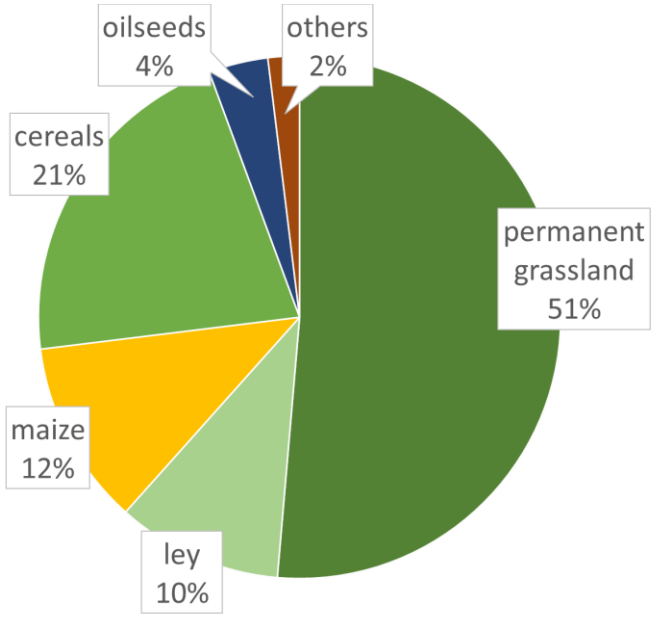
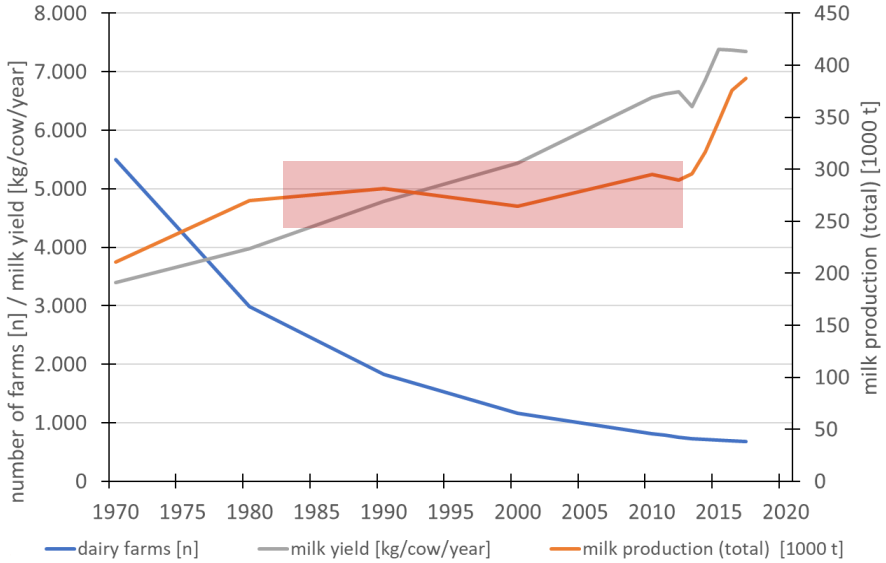
www.grengland.lu

Farming in Luxembourg

UAA



Dairy evolution



- > 50% of UAA (useable agricultural area)
  = permanent grassland
  due to pedo-climatic conditions
- +/- 75% of UAA
  = forage production
- Dairy & beef
  = most important production
  - 53.000 dairy cows
  - 29.000 beef cows
- Increase of milk production
  - + 35% in 5 years
  - very restricting quota regulation
- Decrease of nb. of dairy farms
  - with increasing herd size
- Decrease of grazing (nb. of farms)

  1980: 100%
  2018: 35%

Grazing Promotion in Luxembourg

- Grassland and grazing promotion activities
  - FILL WEED (2003-2005; 2006-2008)
  - Dairyman (2009-2013)
  - Autograssmilk (2015-2017; 2016-2019)
- Objectifs
  - Promote efficient grazing with growing dairy herds
  - Respect local conditions
    - limited pasture availability (paddock parcelling, ..)
      - pasture alone diet rarely possible
      - supplementary feeding adaption according to available pasture
  - High prevalence of AMS (> 20% farms)
- Methods
  - Pilot farm networking
  - Financial compensation to stop the decrease of grazing farms in dairy production (since 2014)

AEC measure „Weedprimm“ (grazing subsidy)

AEC (Agri-environment-climate measures)

- motivate farmers for environment and climate matters
- commitment for at least one term of 5 years
- compensation payments for possible constraints

Environmental + climate benefits of grazing

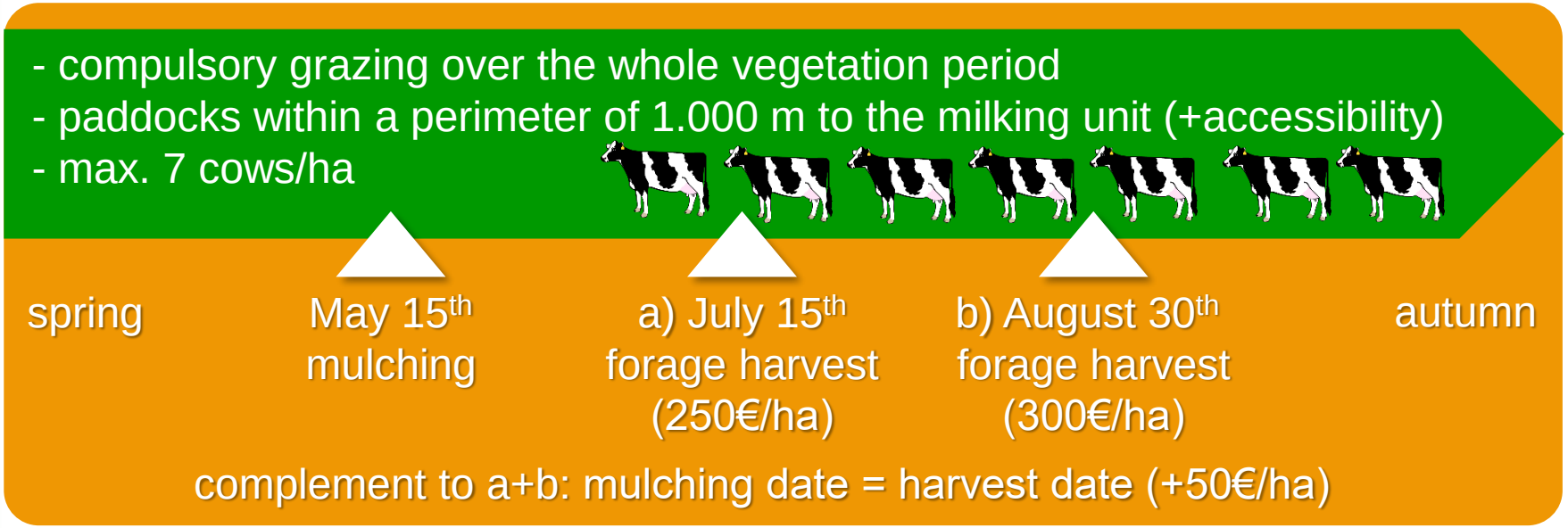
- provides eco-system services, animal + farmer welfare
- offers structures and refuges in meadows to many species and
  - allows nesting of birds breeding on grassland (lapwing, whinchat, meadow pipit)
  - presence of livestock = presence of insects
- correctly managed grassland provides equilibrated feed in terms of energy and protein and decreases import of protein-feeds

Financial compensation (AEC)

- public founding (EU: 25%; LU: 75%) for
  - reduced milk yield in grazing systems
  - more complex herd-management (combined grazing and indoor feeding)
  - installation and adaption of innovative grazing infrastructures

Design of the AEC Grazing measure

- Declaration of a fixed area for compensation payment, grazed exclusively by lactating dairy cows
  - max. stocking density (7 dairy cows/ha declared area)
  - dairy herd has to be registered in the official milk control
  - guarantee of minimum 7-8 kg DM/day/cow grass-intake
    - well-managed half-day grazing system
  - harvesting forbidden during the main growing season
    - with 3 possible options:



Results of the AEC Grazing measure

- Financial compensation [c€/kg milk]
  - at an average milk yield of 7.500 kg/cow/year

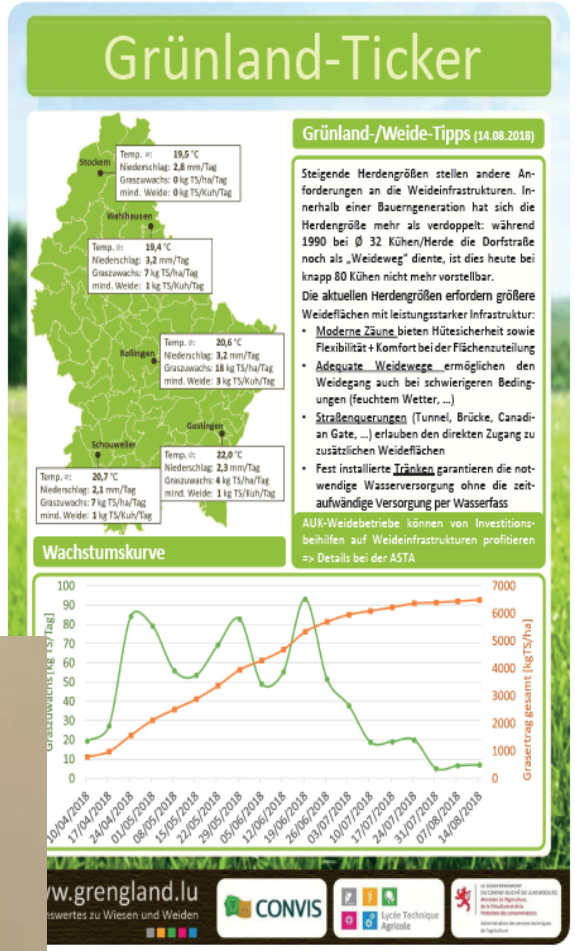
		Option [€/ha]	
		250	350
Stocking density [LU/ha]	5	0,7	0,9
	7	0,5	0,7

- Participation (after 5 years)
  - 110 farmers of 682 dairy farmers
    - 12% of national milk production (40.000 t/year)

- Evaluation/Perspectives
  - Exclusive grazing of the declared area by lactating cows
    - makes leader follower system impossible
    - obstacle for some farmers to participate
    - necessary revision if AEC to be continued in next programming period!?
  - Introduction of innovative technologies (sensors, satellites, …)
  - Evaluate impact of grazing on GHG and other ecosystem services
  - Introduction of a grazing label?
  - Development of a competent grazing advisory

Autograssmilk 2016-2019

- weekly measuring with Grasshopper (rising plate meter) from March till October on 5 pilot farms
- publication of the results through mail within 2 days after the measuring an on a weekly base in a local print media



www.autograssmilk.eu www.grengland.lu

EIP project “Méi Weed” (more grazing) (2020-2022)

- the goal is a predicting grass growth tool by modelling and measuring grass yield on dairy farms
- partnership HAFL Zollikhofen (CH) and FILL (LU)
- grass measuring (Grasshopper) and exact cutting an weighing on 5 pilot farms
- including of pedo-climatic data in the modell

Goal 2022 – Make grass great again!

- helping farmers to “rediscover” grassland
- getting grazing systems that are up to date with nowadays dairy business requests (AMS, herd sizes, yields cow/year)
- dairy farmers need precise, actualized and user friendly tools for their daily business, just on the same level ass in other farm units (crops, poultry,…)
- the right balance between grassland and milk yield has to be found in order to use farm resources at its best


Thanks for your attention!
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