



A comparison of grassland-based milk production systems in Switzerland

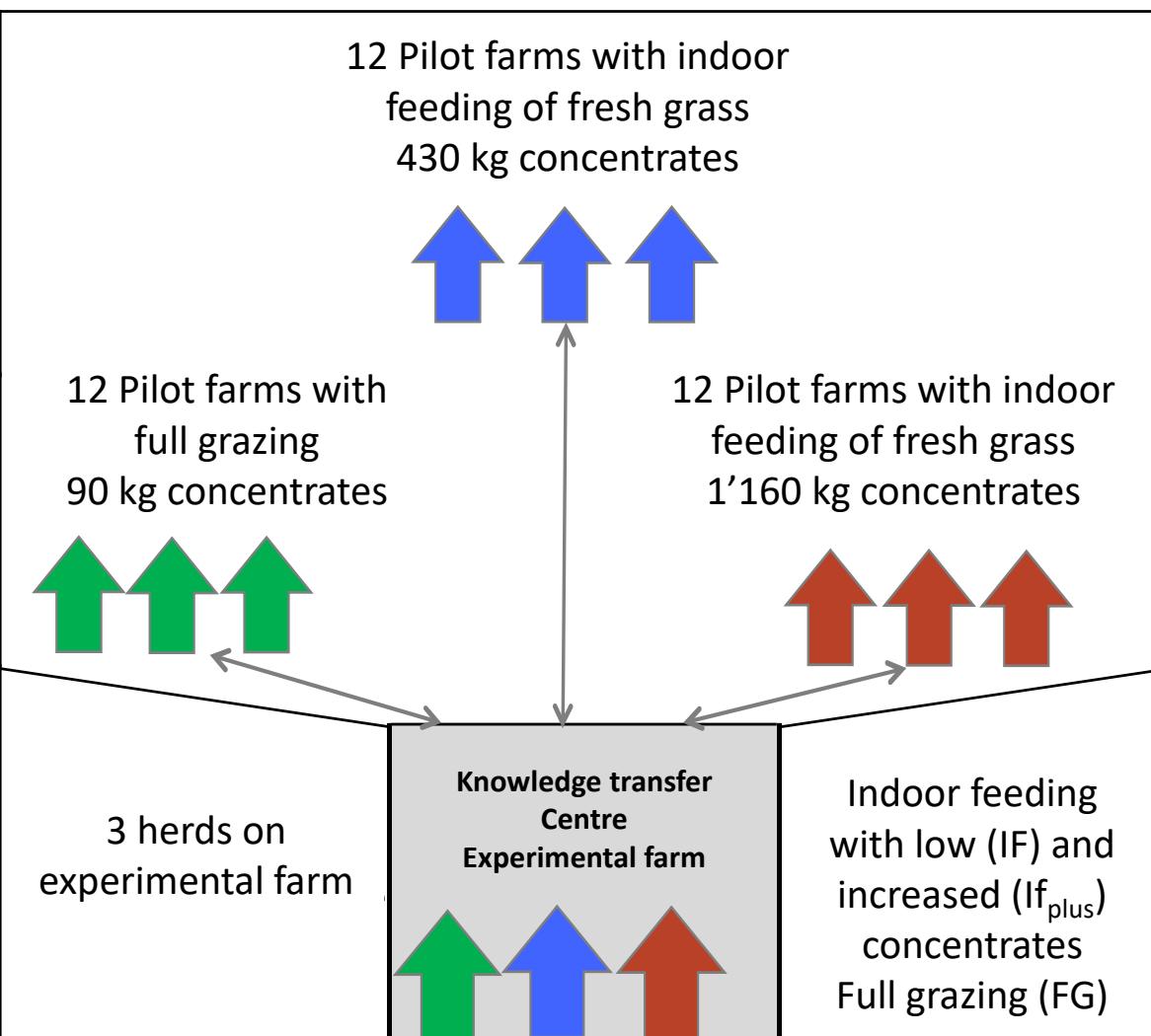
Beat Reidy¹, Esther Mulser¹, Sebastian Ineichen¹, Franziska Akert¹, Katharina Dorn¹, Stefan Probst¹, Hansjörg Frey², Thomas Haas², Markus Höltchi², Ueli Wyss³, Pius Hofstetter²

¹ Hochschule für Agrar-, Forst- und Lebensmittelwissenschaften (HAFL), ²Berufsbildungszentrum Natur und Ernährung (BBZN), ³Agroscope

Indoor feeding of fresh grass with partial grazing vs. full grazing in Switzerland

- ▶ Partial grazing with indoor feeding of fresh grass common dairy system in Switzerland
 - ▶ Close fields used for grazing, more remote fields harvested daily and fed fresh in the barn
 - ▶ Full grazing not very common
 - ▶ Easily accessible land for full grazing is limited
 - ▶ Topographical and structural constraints (urban sprawl)
 - ▶ 2/3 of farms with traditional hard cheese production
- What are the opportunities, limitations and the optimisation potential of this system as compared to full grazing with seasonal calving (reference system)?

Framework of the 3-year system analysis



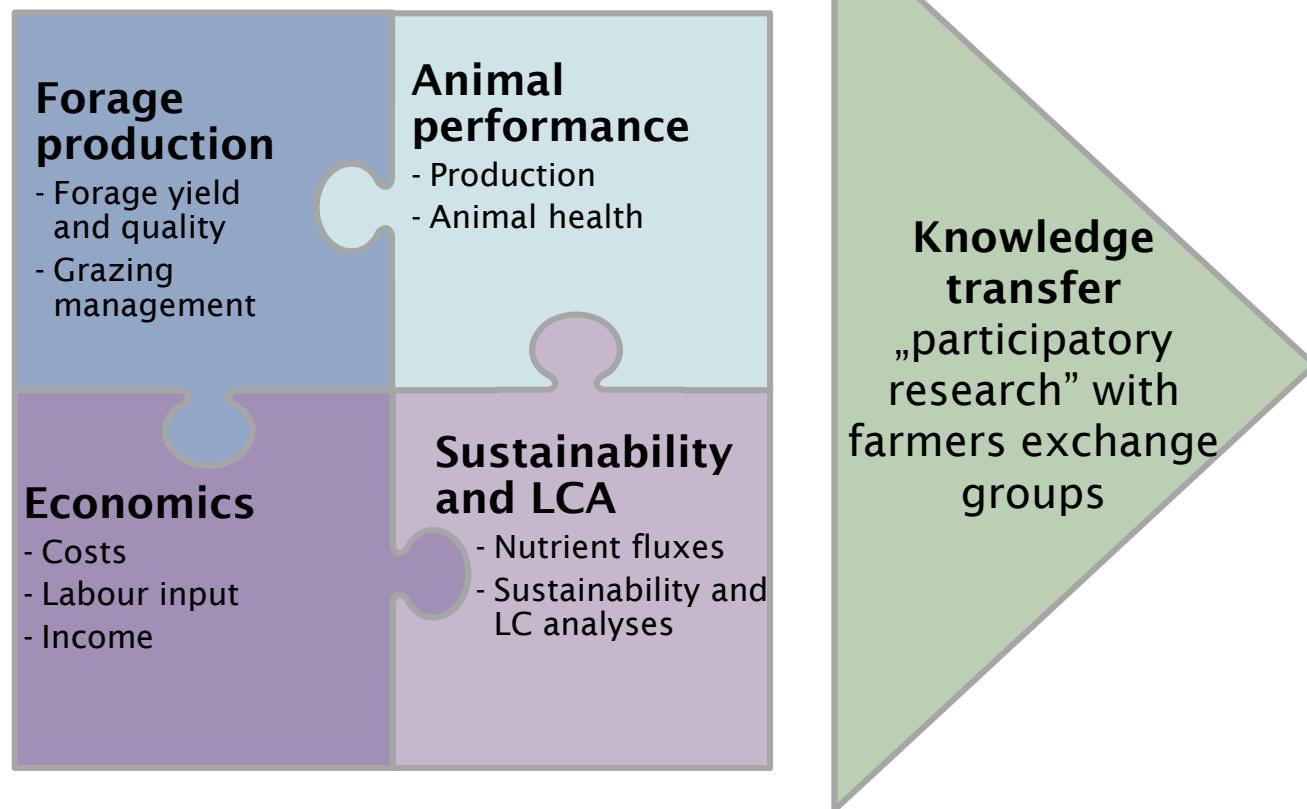
Pilot farms

- 36 pilot farms throughout Switzerland
- Possibilities and limits under practical conditions
- Participatory research with farmer exchange groups to ensure knowledge transfer

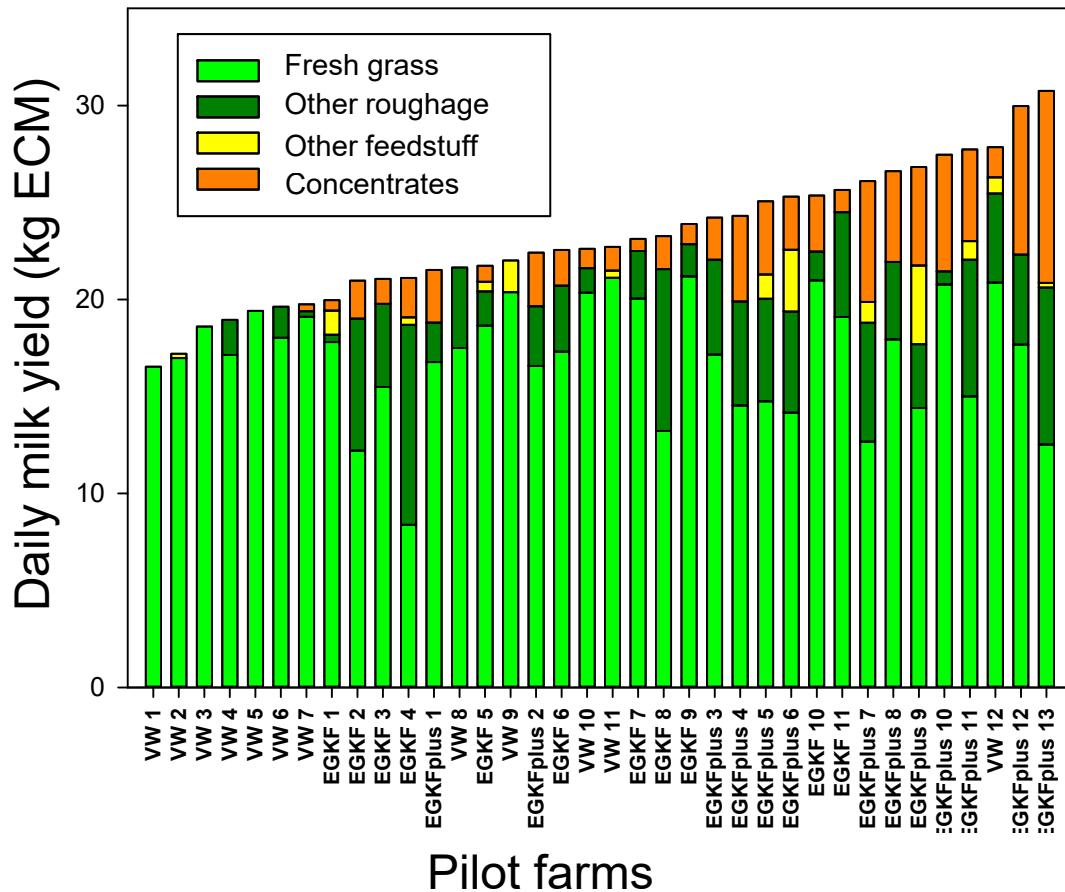
Experimental farm

- System trial with 3 herds
- System performances
- Reproducible data for comparisons

Fields of investigations



Milk yield vs. proportion of fresh grass in the ration



Average proportion of fresh grass in ration:

IF: 74 %

IF_{plus}: 61 %

FG: 92 %

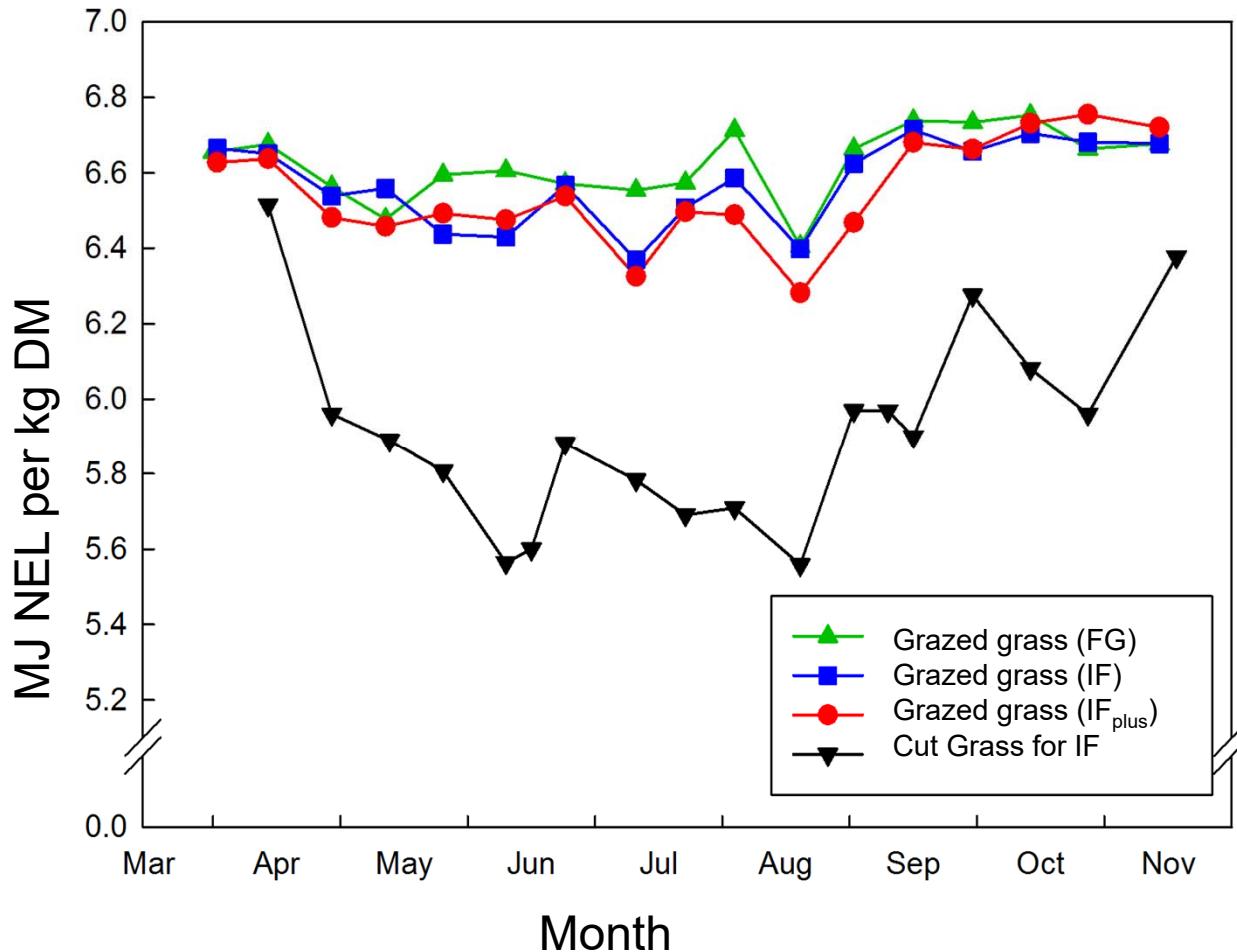
Average milk yield (ECM) of pilot farms

IF: 7'218 kg +/-691

IF_{plus}: 8'457 kg +/-882

FG: 6'268 kg +/-1124

Grass quality – grazing vs. indoor feeding of fresh grass



Continuous pasture

- Higher and less variable energy and nutrient contents

Indoor feeding

- Mowing management is key (when to switch to plots with younger stands)

A few conclusions

- ▶ Energy and nutrient contents of herbage for fresh indoor feeding lower and more variable than herbage from continuous pastures
- ▶ Labour input for feeding according to the working hour per cow and year highest for the IF (22.0 hrs), followed by IF_{plus} (18.5 hrs) and FG farms (7.6 hrs)
- ▶ Highest incomes per working hour were recorded for FG farms (29.1 €/hr) followed by IF and IF_{plus} farms (19.2/18.9 €/hr)
- ▶ Appropriate cow breed, optimal grazing management, high-quality swards, efficient work processes and an adequate workload were identified as most important success factors by farmers exchange groups

Systemvergleich Hohenrain II

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Fachtagung (Referate und Poster)

Freitag, 01. September 2017, BBZN Hohenrain LU

Praxistage (Poster und Referate)

Mittwoch, 6. September 2017, BBZN Hohenrain LU ([Anfahrt](#))

Mittwoch, 13. September 2017, BBZ Arenenberg, Tänikon TG ([Anfahrt](#))

Freitag, 15. September 2017, INFORAMA Zollikofen BE ([Anfahrt](#))