

Economic impact of **feed autonomy** and associated ecosystemic services



in a mixed Limousin cattle and poultry farm
in Belgium

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First Agroecology Europe Forum,
Lyon, 27 October 2017

1 – Technical & economic performances of on-farm produced fodders

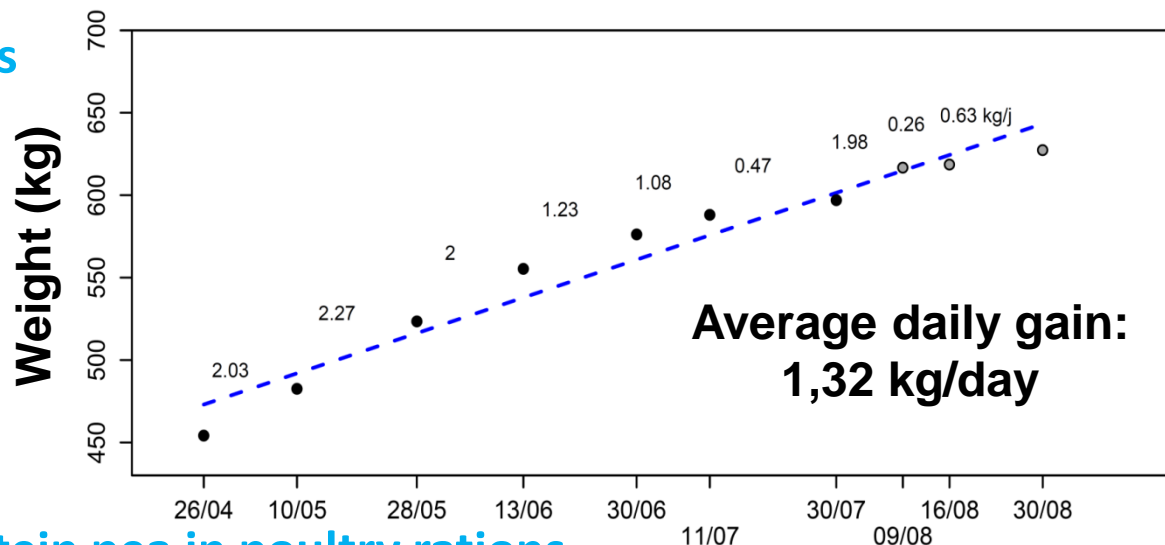
	Grazed pasture	Alfalfa - dactyl	Immature cereals- protein crop	Forage rye	Corn silage
Total costs (€/ha)	946	1503	1194	676	1580
Production (kg DM/ha)	8 500	12 792	11 400	8 500	17 100
Cost price (€ /100 kg DM)	11,13	11,75	10,47	7,95	9,24
Nutritional value					
<i>Energy content</i> (VEM/kg DM)	995	768	750	783	915
Energy (kVEM/ha)	8 458	9 824	8 550	6 656	15 647
<i>Crude protein content</i> (g/kg DM)	189	159	108	105	77
Crude protein (kg/ha)	1 607	2 039	1 231	893	1 317
Economic value					
based on energy (€/kg DM)	0,05	0,04	0,04	0,04	0,05
based on protein (€/kg DM)	0,21	0,17	0,12	0,11	0,08
Total value per kg DM (€)	0,26	0,21	0,16	0,15	0,13
Total value per ha (€)	2 174	2 714	1 770	1 306	2 218
Net margin per ha (€)	1 228	1 211	576	630	637

➔ Importance of producing fodders that are rich in protein

➔ Grazed pasture is a first-choice feed

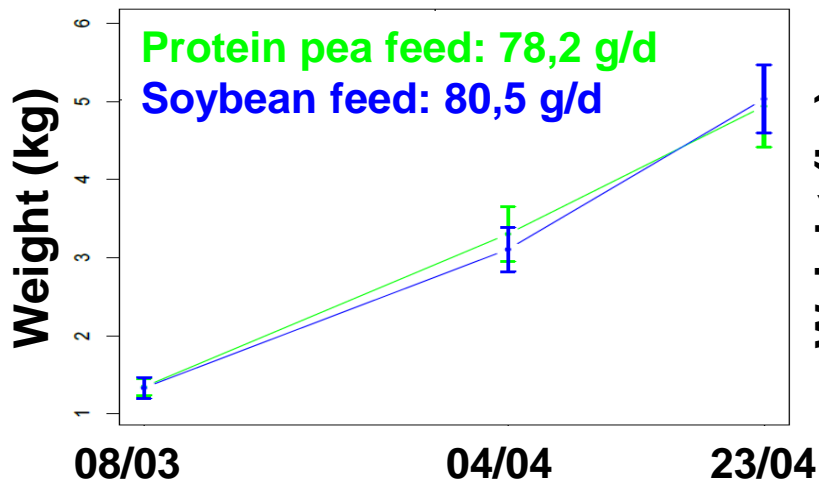
2 – How animals valorized the on-farm produced fodders?

Growing young bulls on grass

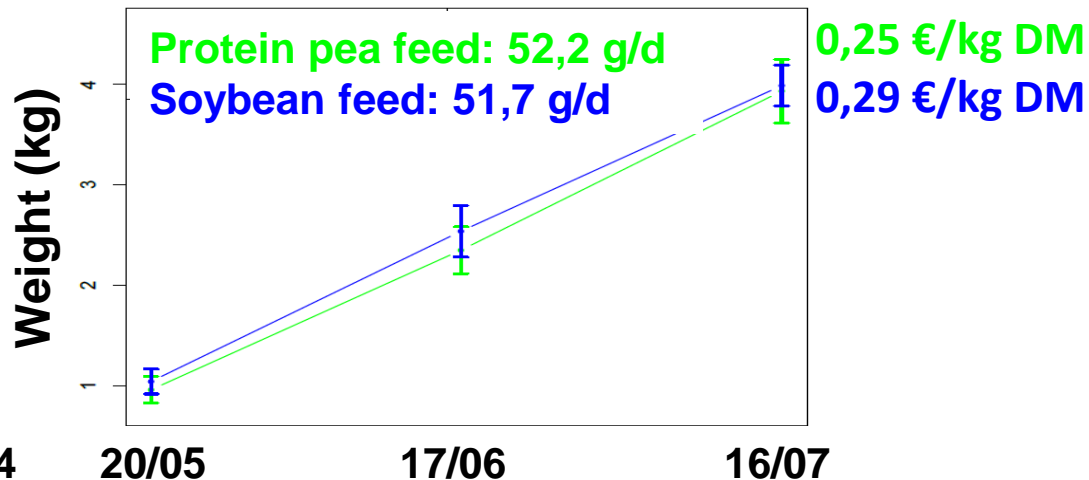


Substituting soybean by protein pea in poultry rations

Chickens « Ross »

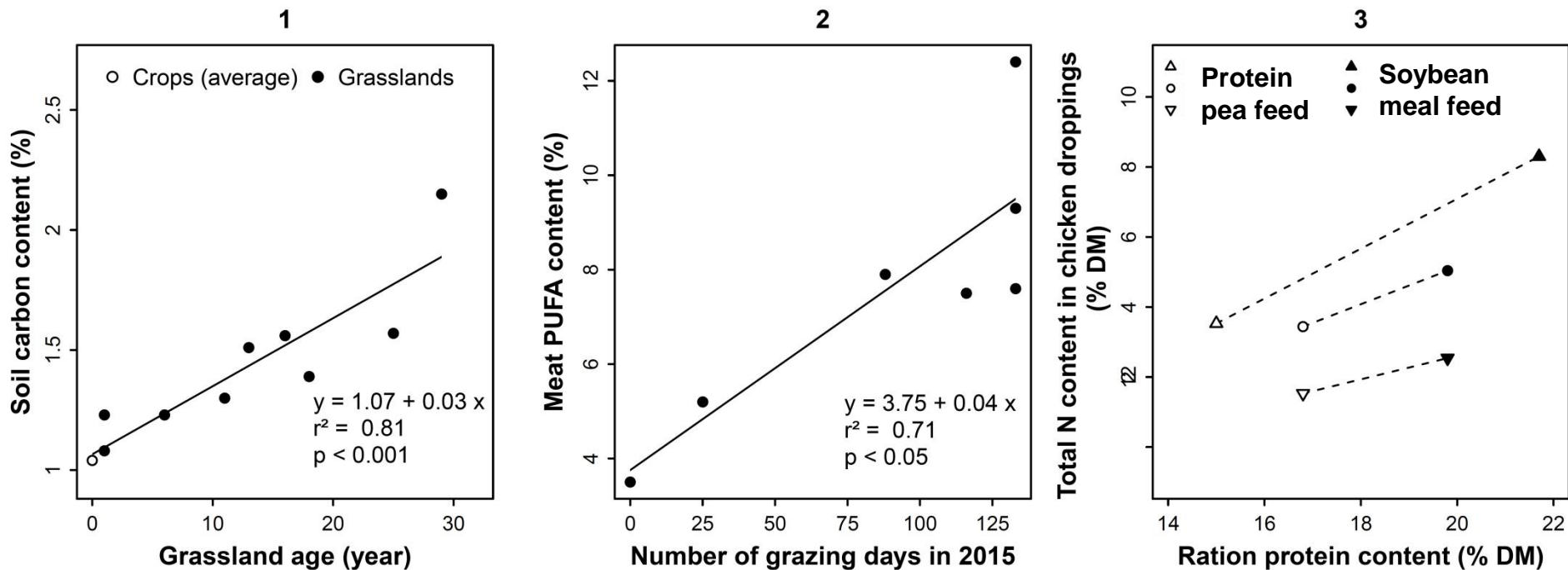


Chickens « Redbro »



➔ It is possible to self-produce technically and economically performant rations

3 – How were the environment and the product quality affected?



1. The **carbon content in grassland soils increased** with grassland age
2. The **quality of meat in terms of PUFA content** (polyunsaturated fatty acid) increased with the number of grazing days before slaughtering
3. The chickens' feed characterized by a lower N content, such as the protein pea-based feed, resulted in lower **N contents in chicken droppings**.

Conclusions

Feed autonomy

- can successfully support the **transition** of livestock farms **toward agroecology**
- offers **nutritional benefits** to the consumer by relying on grasslands
- is favorable to the **societal acceptance of meat** production



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