

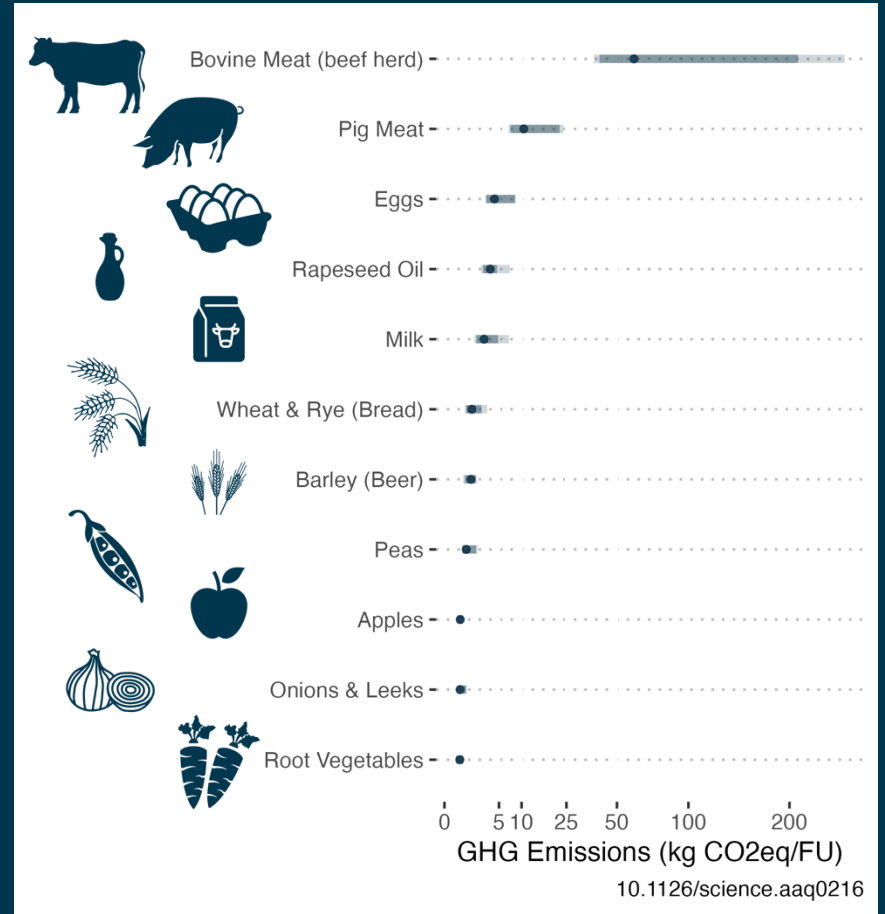
C5-4: Nutrients and the Food Chain

Ben McCormick
Nick Roxburgh (JHI)
Gary Polhill (JHI)



The Why - Food emissions

- Low environmental impacts
- Contribute to food and nutrition security
- Healthy
- Protective of biodiversity
- Culturally acceptable
- Accessible
- Economically fair & affordable



Research Questions

How might food businesses respond to changes in subsidies?

What might be the impact on the supply of nutrients from Scottish agriculture?



<https://www.food.systems/>

What do farms do?

SAC Farm Management Handbook

Budgeting tool with inputs and outputs for different enterprises

Crossbred Ewes

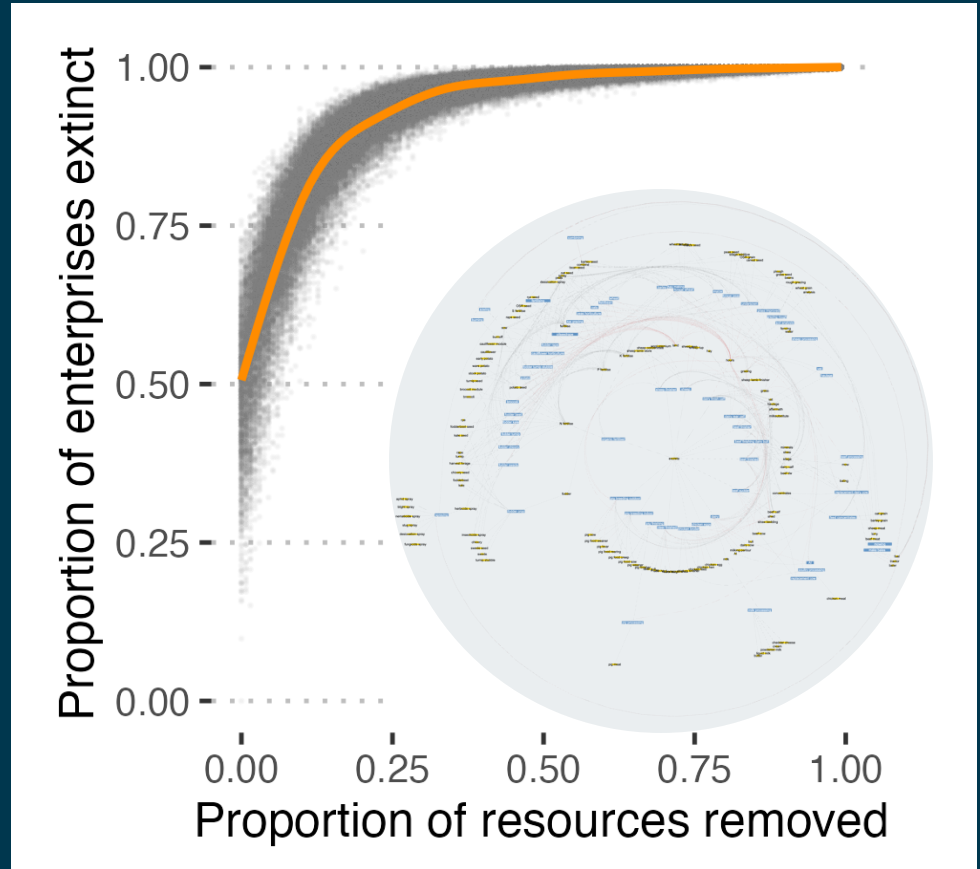
PHYSICAL DATA

Breeds	Large crossbred (75-85kg) e.g. Scotch Mule, Mule-cross		
Breed of ram	Terminal Sire		
Lambing period	Commencing early April		
	Lambs reared (%)		
Lambing period	150%	160%	170%
Lamb crops per ewe (avg)	4.5	4.5	4.5
Ram flock life (seasons)	3	3	3
	/100 ewes tupped		
Rams (no.)	2.5	2.5	2.5
Lamb numbers:			
marked	152	162	172
sold/retained	150	160	170
sold: finished lambs	120	140	160
store lambs	30	20	10
Ewe numbers:			
culls	17	17	17
mortalities	5	5	5
gimmers purchased	22	22	22
Wool sales - ewes, rams & hoggs (kg)	270	270	270
Ewe concentrate: ME 12.5 MJ/kg DM, 18% CP (kg)	4,500	5,000	5,500
Forage: improved grazing (ha)	10.0	10.0	10.0
silage (ha)	2	2	2
Total forage (ha)	12	12	12
Bedding straw (kg/day)	80	80	80

What could farms do?

Analysis of all the resources that farms use

Farms are constrained by their own resources, their experience and the system



What if..? Scenarios of alternative futures

e.g.,

Consumer demand

eg, [CCC](#)

Enhanced Conditionality

qv, [Agricultural Reform routemap](#)

Alternative enterprises

eg, [alternative crops](#)

Redirect subsidies

eg, [World Bank](#)

