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# Highland Environment Forum



## Climate Change Challenge

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# Food production then...

- ❑ Forty Years Ago - £25 per week
- ❑ Loaf of bread - 25 minutes
- ❑ 1lb Chicken - 1 hour
- ❑ 2lb potatoes - 10 minutes
- ❑ 6oz Steak - 44 minutes
- ❑ Pint of Milk - 10 minutes



# Food production now...

- ❑ More than £400 per week
- ❑ Loaf of bread - 2.5 minutes
- ❑ Chicken - 5 minutes
- ❑ potatoes - 2 minutes
- ❑ Steak - 4 minutes
- ❑ Pint of Milk - 1 minutes









# Food Conversion Ratio for Different Systems of Livestock Production



	Human Edible Protein Output (kg input/kg output)	
	Total Protein Intake	
Upland lamb	35.7	
Upland suckler beef	26.3	
'Cereal' beef	8.3	
Milk	5.6	
Pig meat	4.3	
Poultry meat	3.0	

**(Wilkinson, 2011)**

# Food Conversion Ratio for Different Systems of Livestock Production



	Human Edible Protein Output (kg input/kg output)	
	Total Protein Intake	Human Edible Intake
Upland lamb	35.7	1.6
Upland suckler beef	26.3	0.92
'Cereal' beef	8.3	3.0
Milk	5.6	0.71
Pig meat	4.3	2.6
Poultry meat	3.0	2.1

(Wilkinson, 2011)



# Scottish Farming

- ❑ 1990- 2014 – 25% reduction in emissions
- ❑ Efficiency important not total.
- ❑ More production on same emissions.





# Scottish Farming

- ❑ Large proportion of ruminant animals.
- ❑ Variable land qualities.
- ❑ Climate challenge/ varied weather.
- ❑ Plenty of water.



# Scottish Farming

- ❑ Farming for a better climate.
- ❑ Precision farming techniques.
- ❑ Livestock health (BVD eradication).
- ❑ Beef efficiency scheme.
- ❑ Farm advisory service.

# Carbon calculations

- ❑ Understand carbon calculations for crops and livestock produced.
- ❑ Food non discretionary.
- ❑ Export our industry.
- ❑ Third countries less conscientious.



# Carbon calculations

- ❑ Renewables.
- ❑ Bio digesters using potential animal food and human food for production.
- ❑ Output credit to renewables sector.
- ❑ Fuel and Fert cost to agriculture.





# Challenges for all.

- ❑ Food waste.
- ❑ In the home.
- ❑ In the supply chain.
- ❑ In retail sector.
- ❑ In catering sector.



# Challenges for farmers.

- ❑ Produce a lot more from a little more.
- ❑ Not less from less.
- ❑ Ensure maximum efficacy of inputs.
- ❑ Produce what market demands.
- ❑ Sustainable Profit.
- ❑ Rise to the challenge.

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