



The Dietary Benefits of Red Meat

Robert Pickard

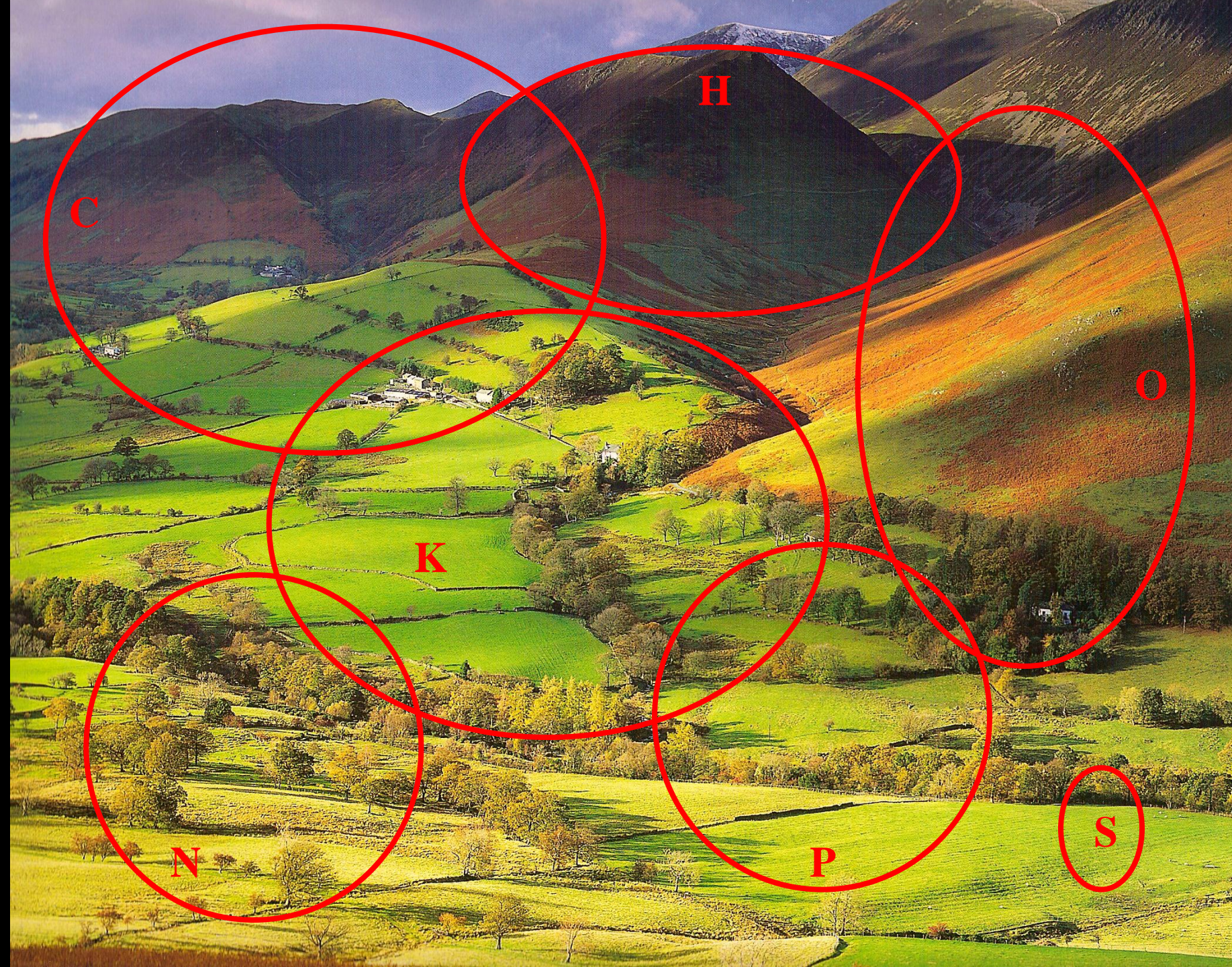


Bord Bia, Naas, Eire

8 January 2016

*Videos and Blogs free to see on
Google and YouTube*





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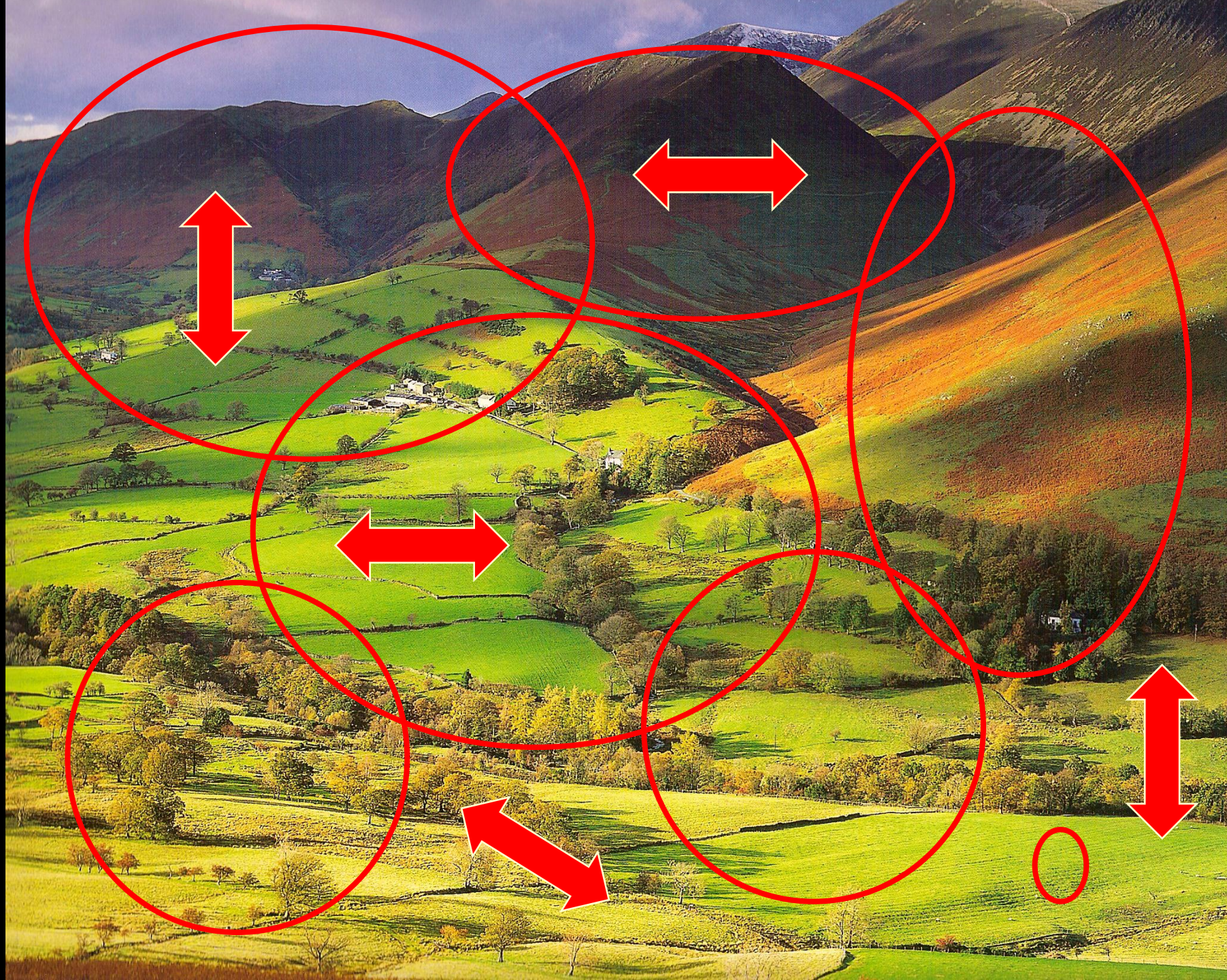
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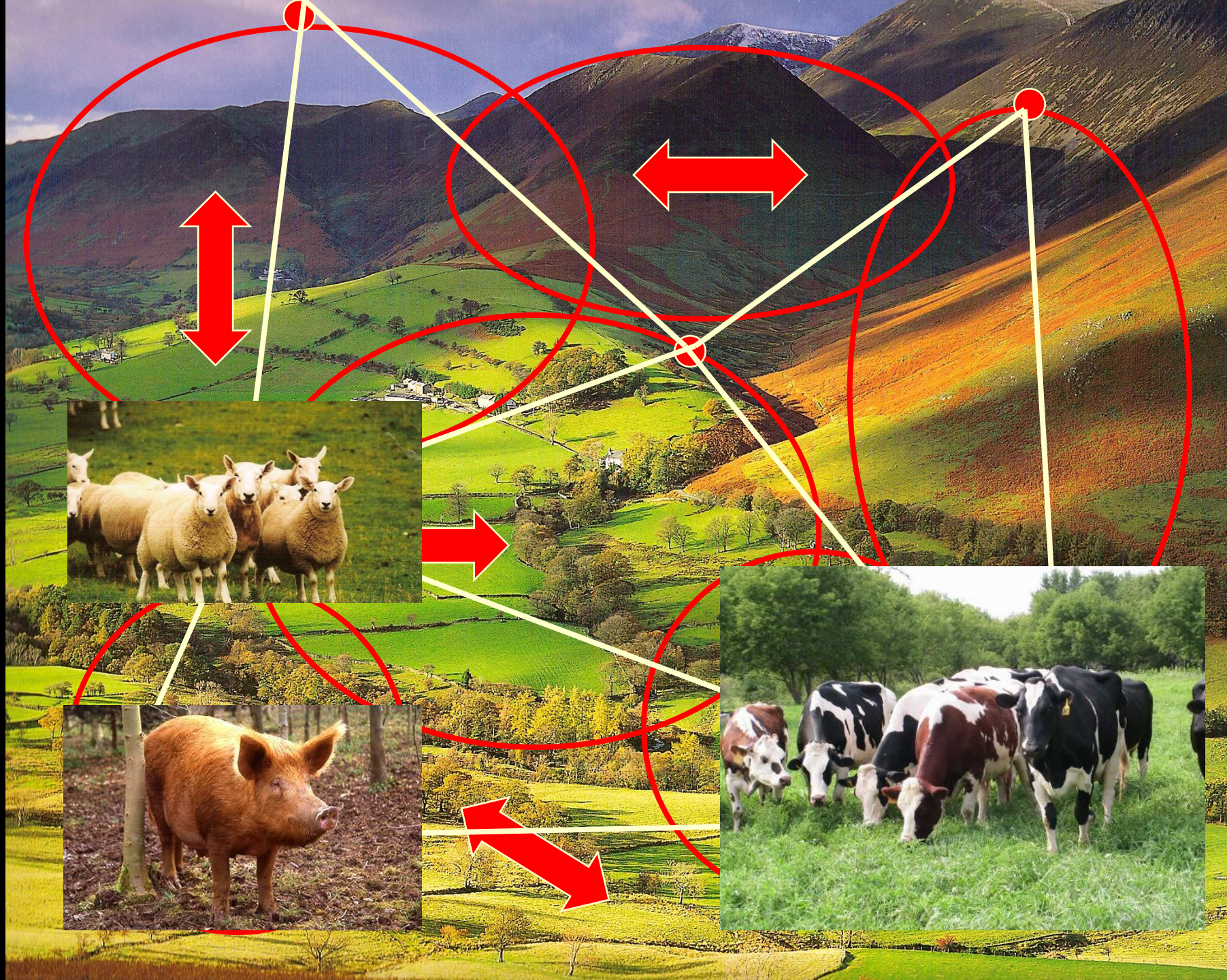
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Policymakers Decide:

What is natural & necessary

What is unnatural & unnecessary





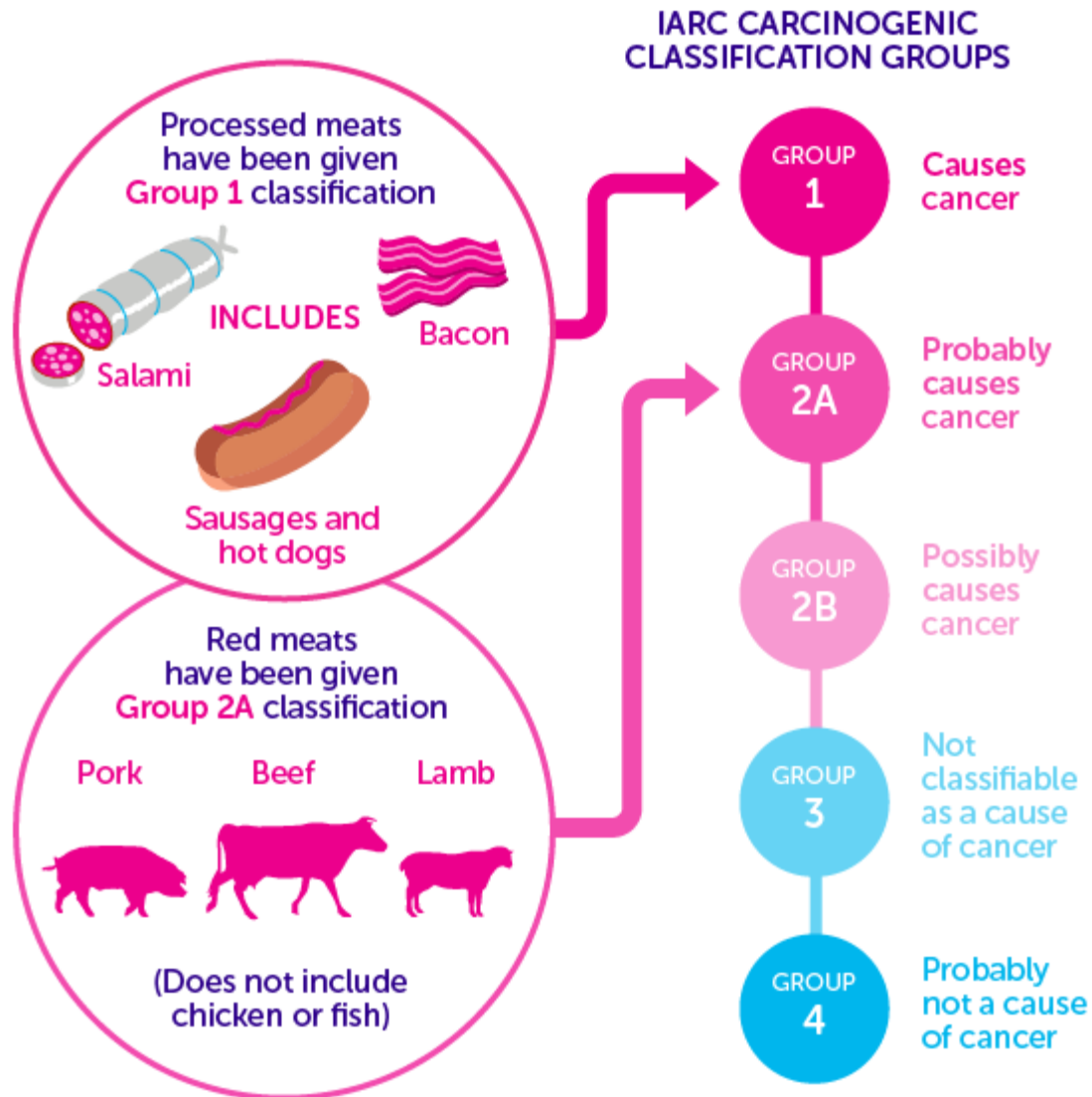
Epidemiology & Hedgehogs

Candidates for causal mechanisms

- Contamination: viruses, toxins, agricides, husbandry treatments, preservatives
- Chemistry: iron, nitrogen, sulphur, cooking heterocyclic amines, *trans*-fats
- Overeating meat in the absence of plant material and physical inactivity.

MEAT AND CANCER

HOW STRONG IS THE EVIDENCE?

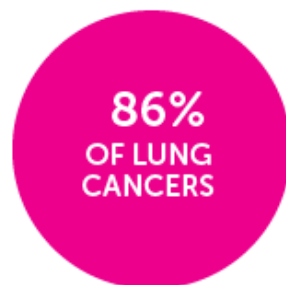


These categories represent how likely something is to cause cancer in humans, not how many cancers it causes.

TOBACCO vs MEAT WHAT'S THE RISK?

The **EVIDENCE** that processed meat causes cancer is as strong as the evidence for tobacco, but the **RISK** from tobacco is much higher...

CANCERS CAUSED BY TOBACCO



19%

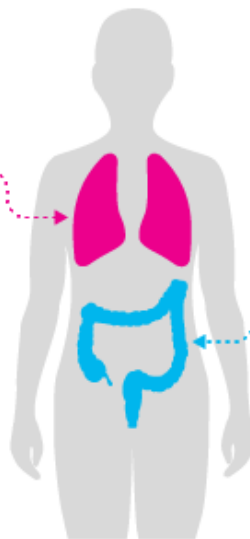
OF ALL CANCERS

CANCERS CAUSED BY PROCESSED AND RED MEAT



3%

OF ALL CANCERS



THE NUMBER OF CANCERS PER YEAR IN THE UK THAT COULD BE PREVENTED IF...

NO-ONE SMOKED



64,500 FEWER CASES

NO-ONE ATE ANY PROCESSED OR RED MEAT

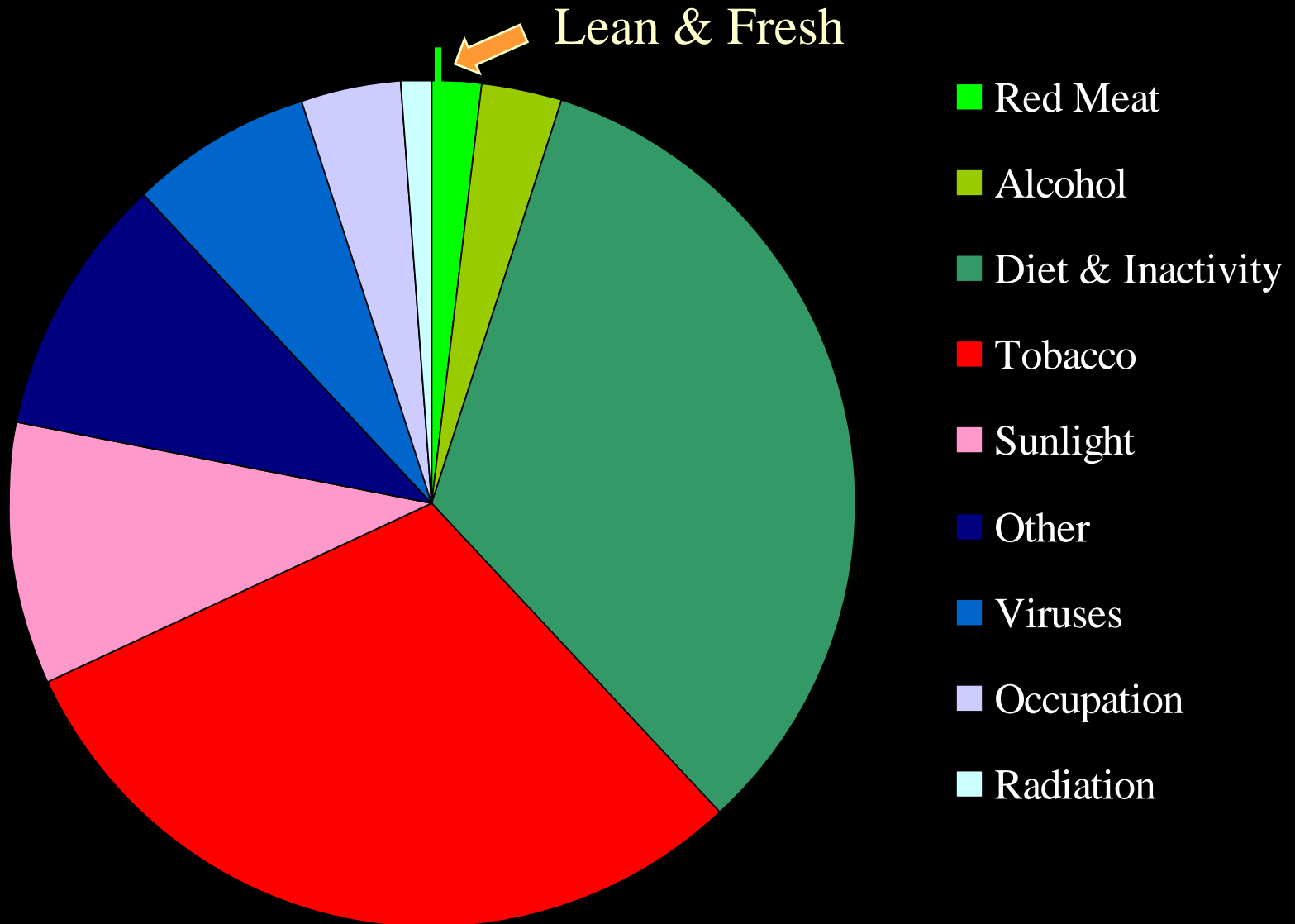


8,800 FEWER CASES

 = 1,000 PEOPLE

Source: cruk.org/cancerstats

Worst Case Scenario

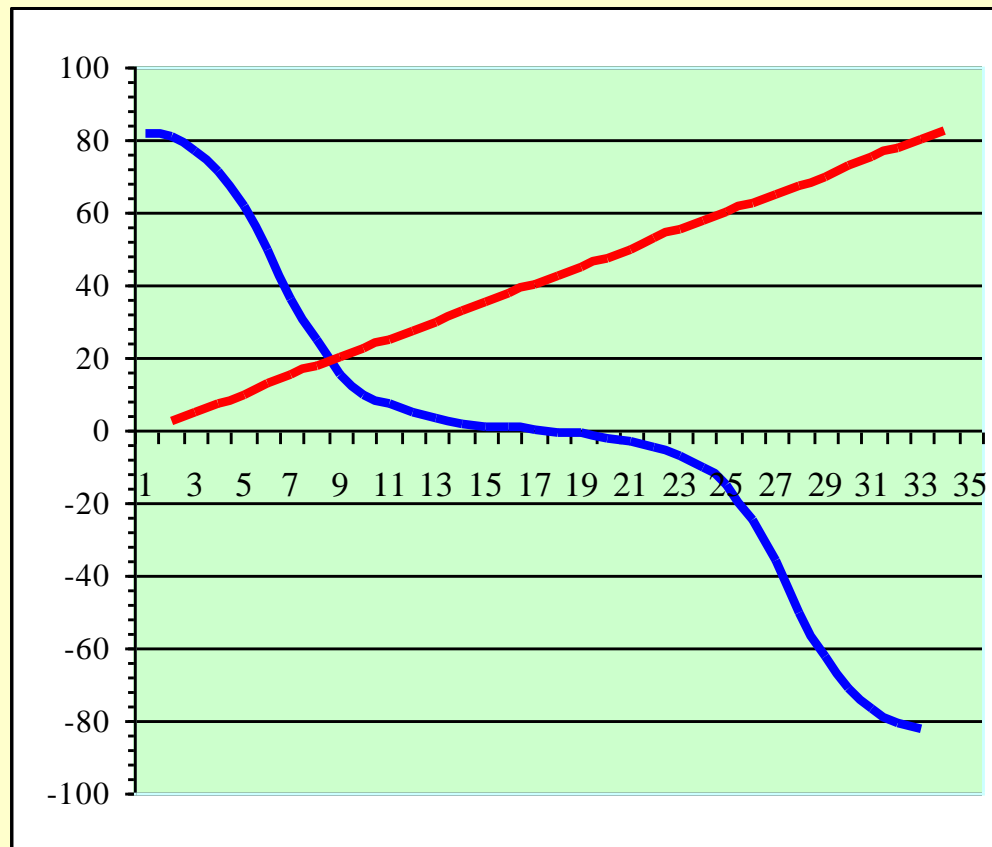


Benefit versus Quantity

Micronutrients

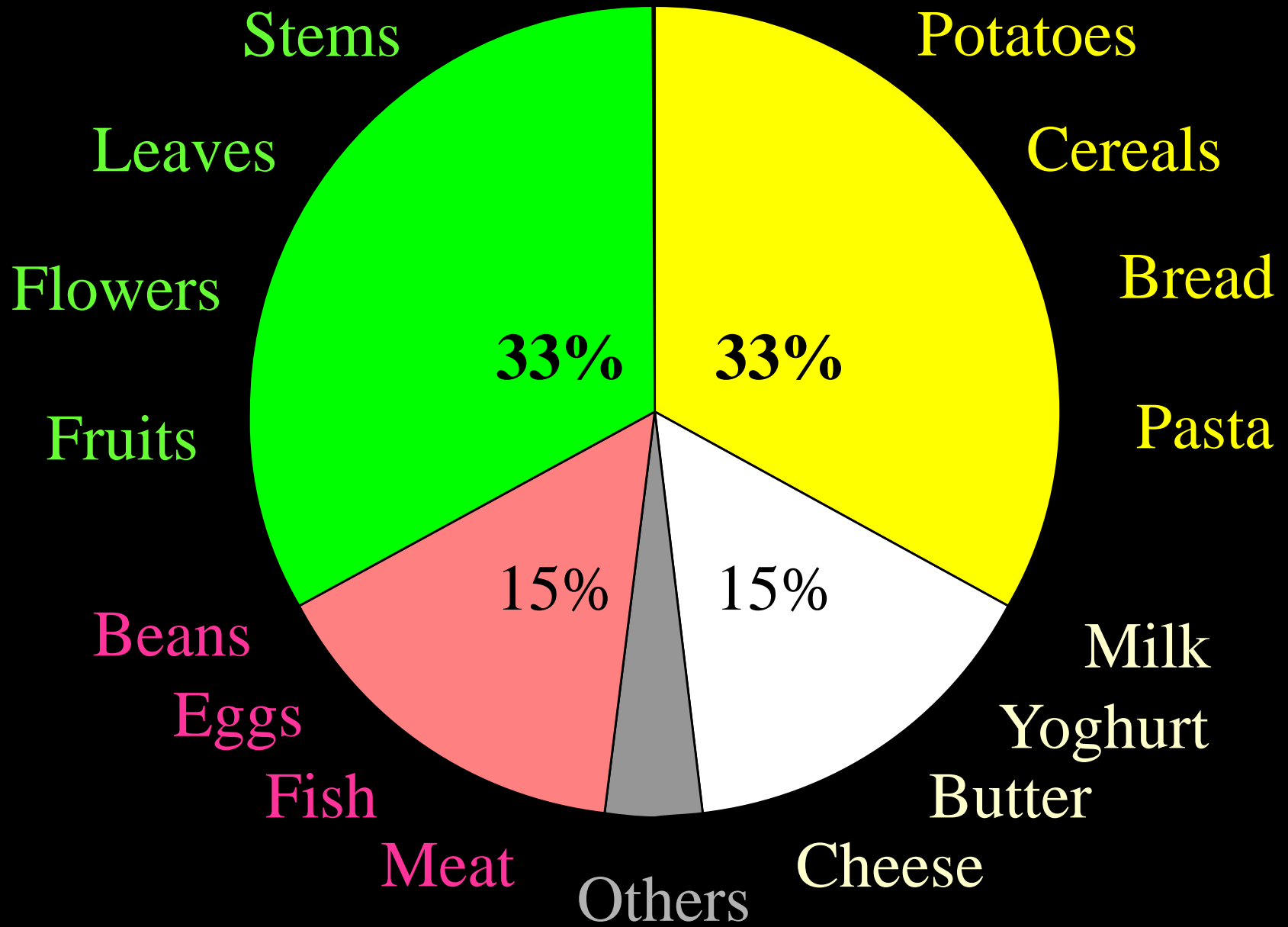
Health
improved

Health
damaged



Intake of additional units

The Balanced Diet



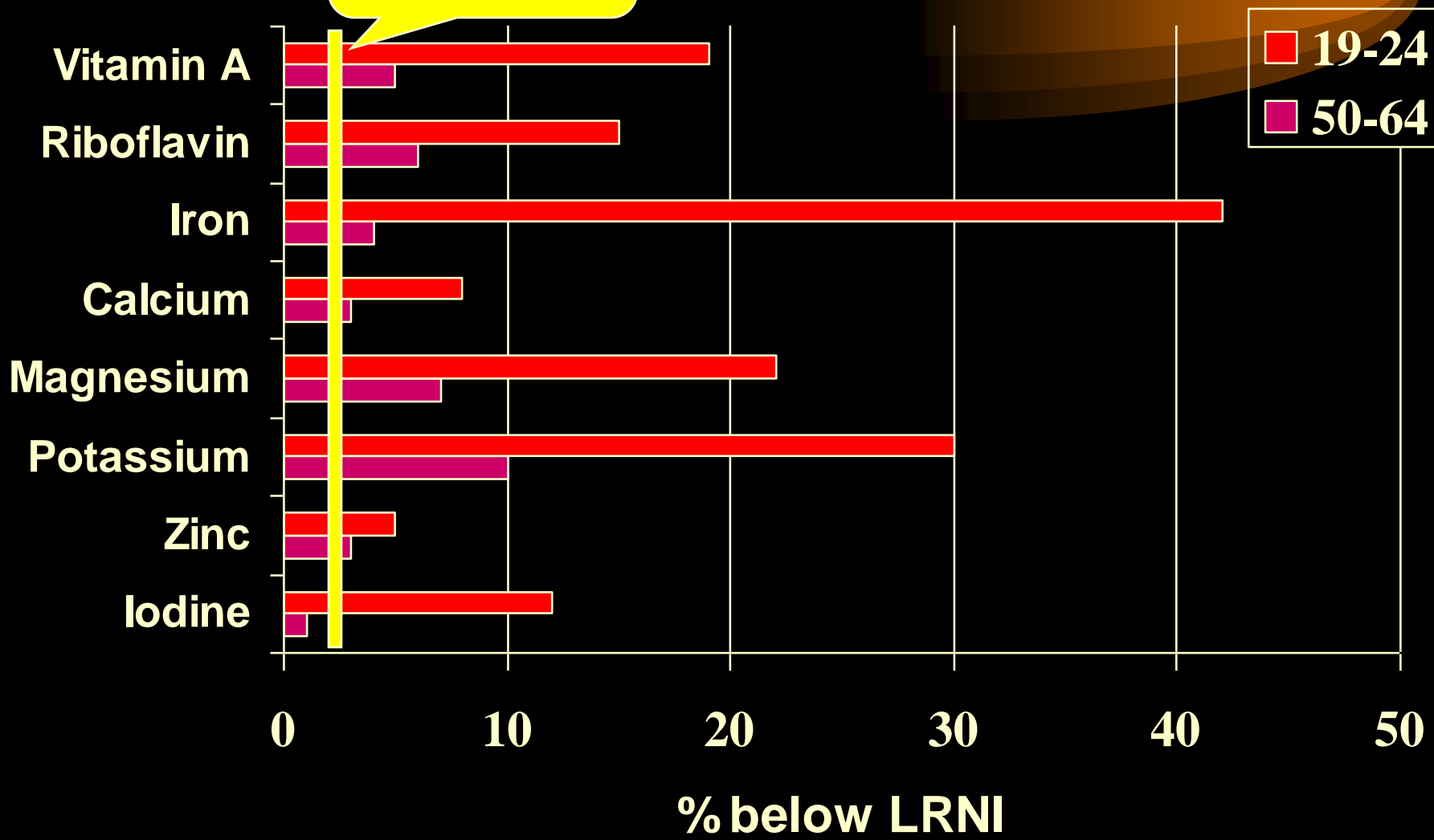
And time that gave...



Cows, Sheep & Pigs share
80% of their genes with
Humans

Intakes for Women

2½ %



Daily: Girls 7-10 years old

	A 500 µg	
	B ₁ 0.7 mg	Salt 5g
Fluid 1.7 litres	B ₂ 1 mg	
Energy 1750 kcal	B ₃ 12 mg	Calcium 550 mg
Fibre 16g	B ₅ 5 mg	Copper 0.7 mg
Phytonutrients	B ₆ 1 mg	Iron 8.7 mg
	Biotin 110 µg	Iodine 110 µg
Carbohydrates 220g	Folate 150 µg	Magnesium 200 mg
sugars 85g	B ₁₂ 1 µg	Phosphorous 450 mg
Fat 70g	C 30 mg	Potassium 2 g
saturates 20g	D 10 µg	Sodium 2 g
long omega-3 450 mg	E 3 mg	Selenium 30 µg
Protein 65g	K 35 µg	Zinc 7 mg

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Fats

Membrane structure

Energy storage (9 kcal/g cf. 4 for C & P)

Organ protection, insulation

Metabolism, ADEK, 23 essential fats.

70kg man: 100,000 kcal in TG; 25,000 in protein; 600 in glycogen; 40 in glucose.

1g dry glycogen binds with 2g of water.

1g fat stores 6 times more energy than 1g hydrated glycogen. (11 kg becomes 66 kg)



12th century monks
6,000 calories per day

Cholesterol (foods from animals)



Bile salts

Membrane integrity

Sex hormones

Steroids

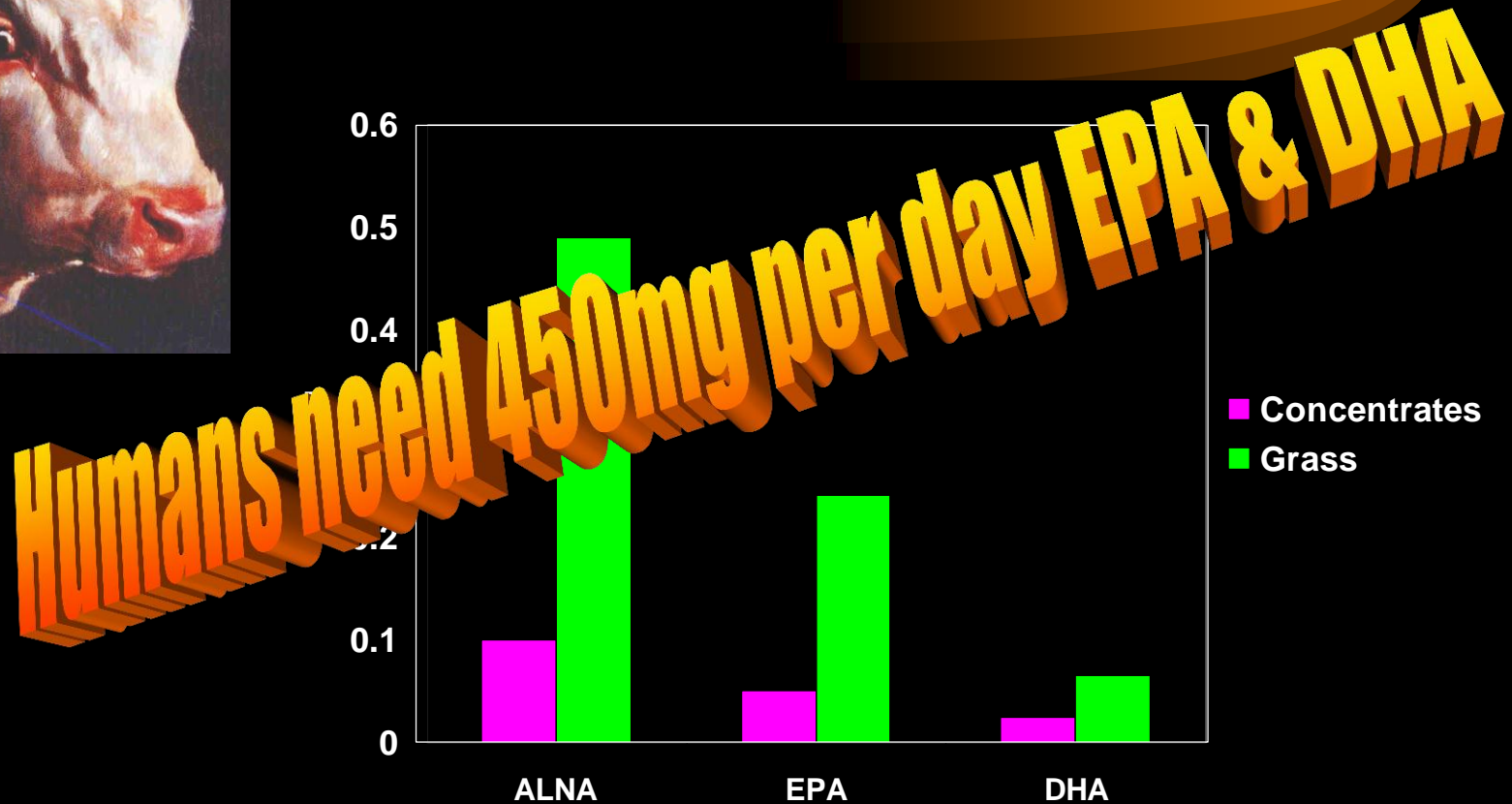
Vitamin D

Blood level rises when LDL receptors are blocked.

% of total fatty acids in the food

	Lauric	Myristic	Palmitic	Stearic
Carbon chain	12	14	16	18
Coconut oil	49	18	8	3
Cocoa butter			26	35
Palm oil			45	5
Mutton fat		5	24	25
Beef fat		3	26	22
Pork fat		2	25	12
Chicken fat		1	23	6

Feed and n-3 PUFAs in beef



After Enser *et al.* 1998

Meat Advisory Panel

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- Professor Robert Pickard
- Mr Roger Leicester
- Dr Gill Jenkins
- Dr Carrie Ruxton
- Dr Emma Derbyshire

Visit www.meatandhealth.com or www.meatmatters.com

