Most cattle don’t get to feed peacefully in grassy meadows.
Most cattle eat pellets rich in energy and protein. Some cattle never see grass at all.

Why does this matter?

Producing food sustainably:
Example 1 – Beef and dairy

Animal welfare
Cows or cattle kept in sheds are susceptible to various health problems, including lameness and infection. There are concerns about animal welfare, as well as the routine use of antibiotics which then contaminate the meat or milk.¹⁰

Greenhouse gases (GHGs)
Beef and lamb production generates 12–20 times the GHG emissions of nuts; 30–40 times that of lentils.
Cheese generates six times as much as nuts and 12 times as much as lentils.²⁵
Normally about half the GHGs are from methane produced in the animal's digestion. For intensively reared cattle, production of feed must also be taken into account: fertilisers for the grain, fuel for the tractors...
However, grass-fed meat grows more slowly, so generates more methane – all meat is high in GHGs, compared to plant protein.

Eat less meat and dairy

Don’t waste it!
Dairy waste by the consumer is estimated to be 187,000 tonnes a year in Britain.⁷
Of all beef cattle that go to slaughter, humans eat little more than half the carcass – the rest is fed to other animals, or sent for specialist rendering or incineration.¹

Water
Water is often needed to irrigate grazing land or to feed crops, as much as 15,000 litres per kg beef.⁴

Land
We give nearly 40 per cent of the cereal we grow to farm animals, worldwide.¹¹
It takes up to 10kg grain to make 1kg beef.²
Even grass-fed beef cattle take a lot of space – in Brazil, cattle ranches have been created by cutting down Amazon rainforest.
Clearing 1 hectare of land releases 300–500 tonnes CO₂ – for a space that will support up to two adult animals.³

Pollution
Intensive farms produce huge quantities of slurry from animal manure – this can easily pollute local rivers or streams if it’s not very carefully managed.

Sustainability in meat eating
With a growing world population, we can’t afford to keep increasing our consumption of meat and dairy produce, and still feed everyone in the world when:
• One in eight people who currently go hungry could be fed by the grain used to rear cattle.
• Beef and dairy farming has a large carbon footprint, which contributes to climate change.

Let cattle eat grass: grain is for people

<table>
<thead>
<tr>
<th></th>
<th>GHGs</th>
<th>Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 kg beef</td>
<td>up to 18 kg</td>
<td>up to 15,000 litres</td>
</tr>
<tr>
<td>1 litre milk</td>
<td>up to 1.3 kg</td>
<td>up to 1,000 litres</td>
</tr>
<tr>
<td>1 kg hard cheese</td>
<td>up to 12 kg</td>
<td>up to 5,000 litres</td>
</tr>
<tr>
<td>1 kg dried lentils</td>
<td>0.9 kg</td>
<td>5.9 litres</td>
</tr>
</tbody>
</table>

¹ Waste: Uncovering the Global Food Scandal, Tristram Stuart Penguin 2009
² Feeding the animals that feed us, Soil Association 2010
³ Energy and Carbon Emissions: the way we live today, Natalie Terry UIT Cambridge Ltd. 2011
⁴ www.waterfootprint.org
⁵ Meat Eaters Guide: Environmental Working Group
⁶ Compassion in World Farming, www.cifw.org.uk
⁷ The Food We Waste, WRAP 2008
⁸ Creating a Better Balanced Diet
⁹ Lovering, David et al. (2005) The Food We Waste, WRAP 2008
¹⁰ www.foodstandards.gov.uk
¹¹ www.wwf.org.uk

A local, more sustainable option for beef
Beef cattle are grazed on the commons and open meadows along the River Cam in Cambridge. Many are an old English breed, Red Poll, which are hardy and can stay out for most of the year. English-grown hay pellets or reject root vegetable may be used to supplement their grazing. Fertiliser for the grass is provided by the cattle themselves. The cattle are raised for around two years before being slaughtered for beef.

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