



Tackling supply chain food waste

Harriet Illman, Senior Sustainable Food Consultant

09 January 2020

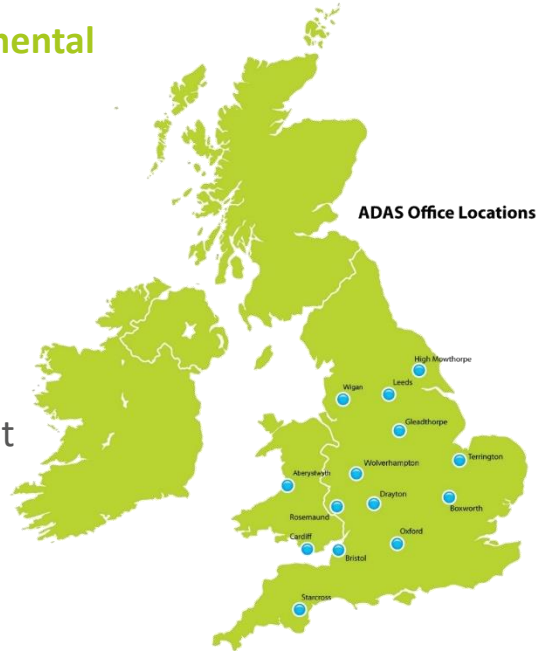
www.adas.uk

Introduction to ADAS

RSK ADAS Ltd is part of the RSK Group

UK's largest independent environmental consultancy including:

- Engineering
- Contracting
- Infrastructure
- Sustainability
- Land and Property Management
- Contamination & remediation
- Agriculture



ADAS is the UK's largest independent agricultural and environmental consultancy

ADAS provides ideas, specialist knowledge and solutions to **secure our food and enhance the environment**

Sustainability Solutions

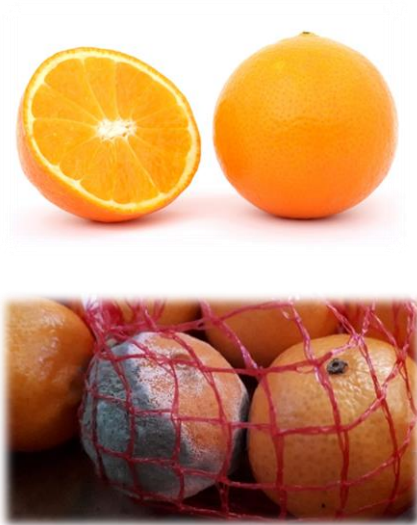
Solutions for sustainable agricultural supply chains
4 key services across 12 challenge areas:

- Productivity
- Climate Resilience
- Climate Change
- Soils
- Water Use Efficiency
- Land Use
- Responsible Sourcing
- Food Waste
- Alternative Proteins
- Animal Welfare
- Modern Slavery
- Pesticide Impacts



Food waste definitions

Food:



Food waste:



Food surplus:



Why is waste an issue?

Economic | Rising costs of production, finite resources, improving security of supply

Environmental | Competition for land and resources, greenhouse gas emissions, climate change

Ethical | Many face malnutrition and food insecurity across the globe

Reputation | Increasing concerns from consumers and buyers about the ethical and environmental aspects of food waste

Global commitments | UN Sustainable Development Goal Target 12.3

12 RESPONSIBLE CONSUMPTION
AND PRODUCTION

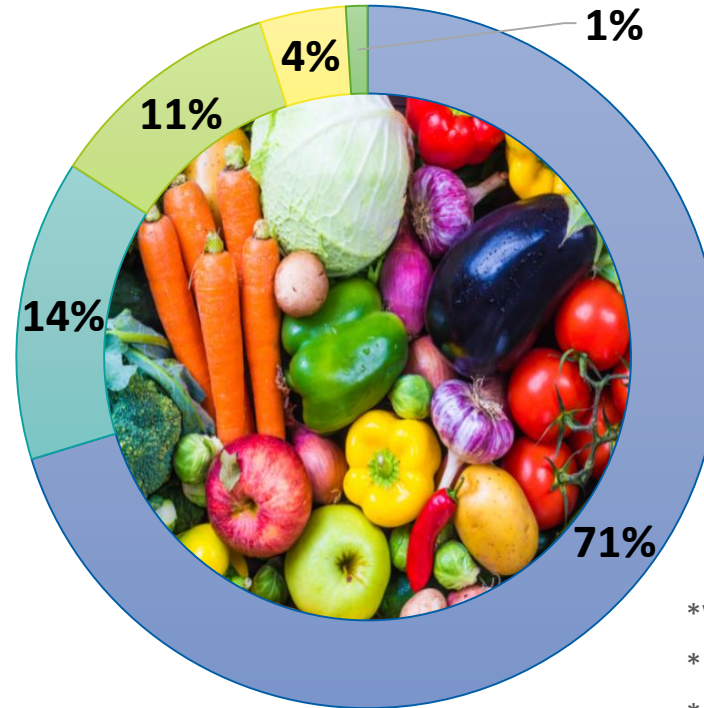


Where does food waste occur in the supply chain?

Post farm-gate food waste in the UK

**Total: 7 million tonnes,
equiv. >£20 billion**

■ Household	5.0 Mt
■ Manufacturing	0.95 Mt
■ HaFS	0.75 Mt
■ Retail	0.26 Mt
■ Wholesale	0.04 Mt



*WRAP 2015 figures
*Excludes inedible parts
*Post farm-gate

Hospitality and Food Service

- Trimmings/peelings
- Portion size

Retail

- Date labelling
- Temperature control
- Stock rotation
- Overstocking

Manufacturing

- Trimmings/peelings
- Machinery/labelling errors

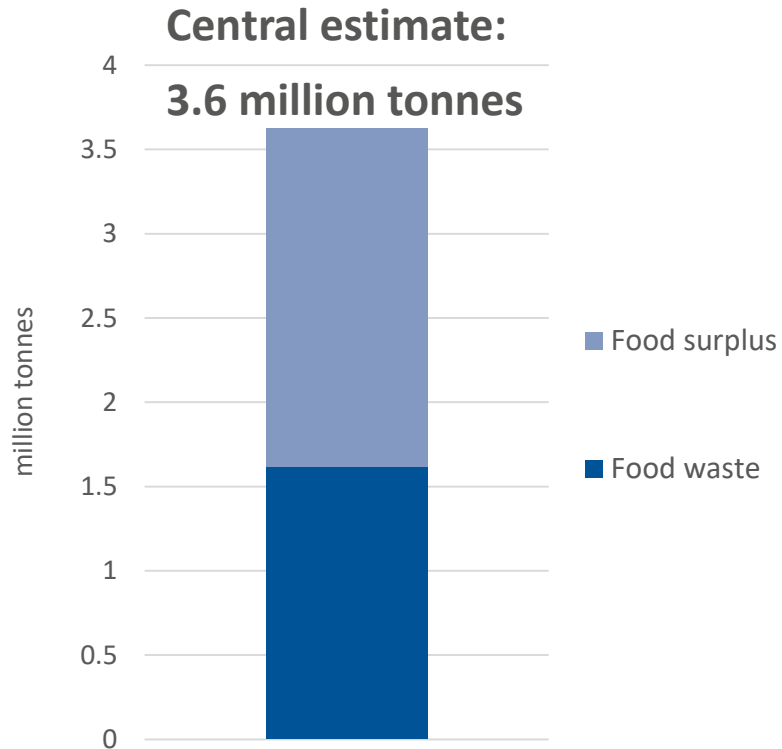
Household

- Best before dates
- Storage temperatures
- Portion size
- Menu planning/change of plans

What about food waste on farm?



Food surplus and waste on farm in the UK



Scope starts when a food crop or animal is ready for harvest or slaughter.

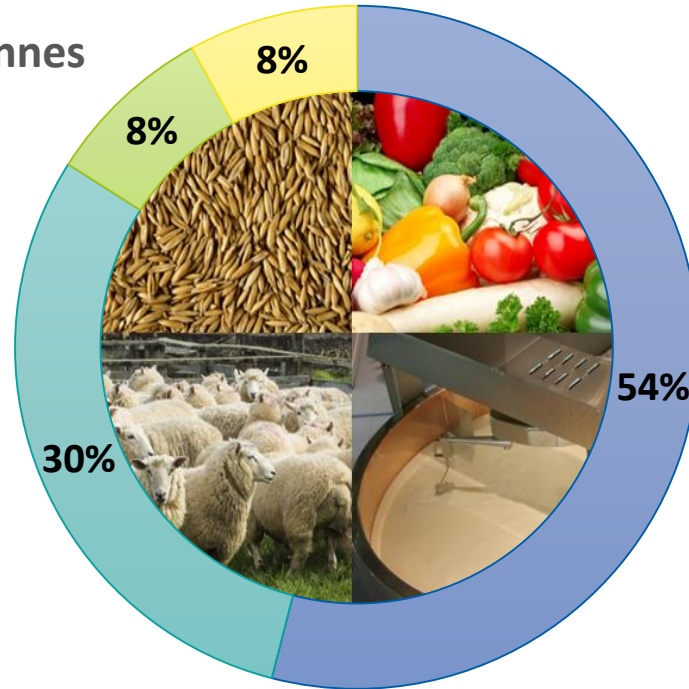
Huge uncertainty: total figure ranges from 2.2 to 5.0 million tonnes a year, with a central estimate of 3.6 million tonnes.

- 1.6 million tonnes food waste
(3.2% of all food harvested)
- 2.0 million tonnes food surplus
(4% of all food harvested)

Composition of food waste on farm

**Total: 1.6 million tonnes
(range 0.9 to 3.5)**

- Horticultural crops
- Cereals
- Livestock
- Milk



Top 10 by weight:

- Sugar beet
 - Potatoes
 - Carrots
 - Milk
 - Wheat
 - Poultry
 - Onions
 - Oilseed rape
 - Barley
 - Cabbage
- 50% of total weight (Sugar beet, Potatoes, Carrots, Milk)
- 80% of total weight (Sugar beet, Potatoes, Carrots, Milk, Wheat, Poultry, Onions, Oilseed rape, Barley, Cabbage)

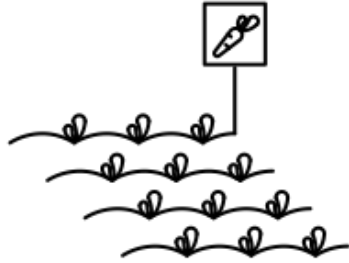
Reasons for food waste on farm

- Pest and disease
- Supply & demand
- Product handling
- Storage
- Quality requirements
- Consumer preferences



What happens with food surplus and waste?

Fruit and vegetable crops - surplus and waste streams



On-Farm



- Crop ploughed in
- Harvested for secondary market
- Redistributed for charitable uses



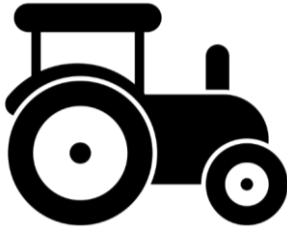
Packing/processing

- Out of specification
- Husks, stalks, leaves, pods
- Peelings
- Damaged product



- Creation of by-products
- Animal Feed
- AD Plant

Arable Crops – surplus and waste streams

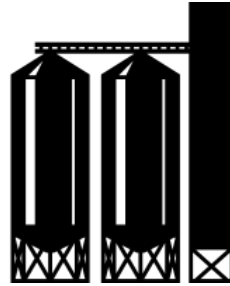


On-Farm

- Small amount of spillage
- Rodent damage
- Pest, disease



Generally lost

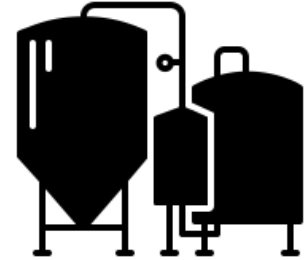


Grain Co-ops/ storage

- Small, shrivelled grains
- Chaff
- Dust



AD, Animal Feed



Manufacturing processes

Barley – distiller dry grains (DDGs)



AD, Animal feed

What can be done to try and tackle food waste?

Primary Production / supply chain

- Creation of by-products – e.g. prep ranges, juices, purées
- Partnering with other businesses – e.g. Branston/Samworth Brothers cottage pie
- Good retail/outlet partnerships – e.g. flexibility with crop flushes
- Redistribution – e.g. FareShare, Company Shop etc.

Retail

- Sensible date labelling
- Forecasting
- Redistribution, e.g. FareShare, Company Shop etc.

How can companies get to grips with waste?

Measuring and reporting food waste



*“what gets measured,
gets managed”*

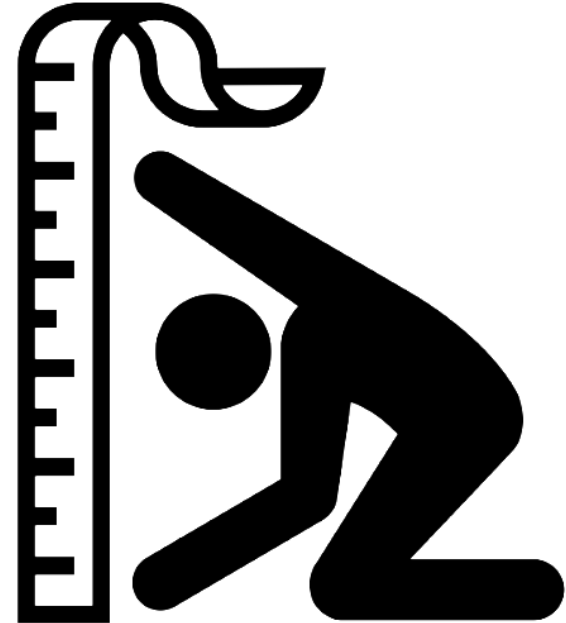


Image courtesy of the noun project

WRAP Food Waste Reduction Roadmap



Target

Set a food waste reduction target for your own UK operations

Measure

Measure in a consistent way and share what you've learnt

Act

Take action to reduce your own food waste, work in partnership with suppliers and help consumers reduce their food waste

Specifically for UK food industry

Aim to have the UK's largest 250 food businesses measuring, reporting and acting on food waste by 2026

WRAP will be tracking and reporting progress in:

- 2019
- 2022
- 2026
- Final report on SDG 12.3 in 2031

Food Waste Reduction Roadmap – One Year On



Highlights of the first year:

- 156 food businesses committed to the roadmap
- 121 large businesses provided evidence of having implemented Target, Measure, Act practices
- More than 40 businesses publicly reported food surplus and waste data in 2019
- More than 150 businesses are currently involved with engagement and training sessions

Those reporting 2018 and historical data saw a 7% reduction in food waste; equivalent to 53,000 tonnes, or £85 million



Will you join the 40 businesses publicly reporting food surplus and waste?
Published on 25 September 2019

Author: Harriet Illman

Globally, it is estimated that around a third of all food produced for human consumption is either lost or wasted during the various stages from farm to fork; resulting in huge economic, environmental and social impacts.

To help tackle this challenge, in September 2018, WRAP introduced the Food Waste Reduction Roadmap to support the UK food sector in delivering its commitment to Sustainable Development Goal (SDG) Target 12.3; to reduce food waste by 50% by 2030.

[The Food Waste Reduction Roadmap](#)



Thank you

Read more at adas.uk/news

Contact me at harriet.illman@adas.co.uk

