

# Produce, Provenance & Sourcing

BMGM4005

Week 3

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*Man Geni Addysg Uwch yng Nghymru*  
*Where Higher Education Began in Wales*

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# Recap

What did we discuss last week?

1. The relationship between supplier and restaurant
2. Sectors of the food service industry



# Today we will look at...

## Farming – The Land

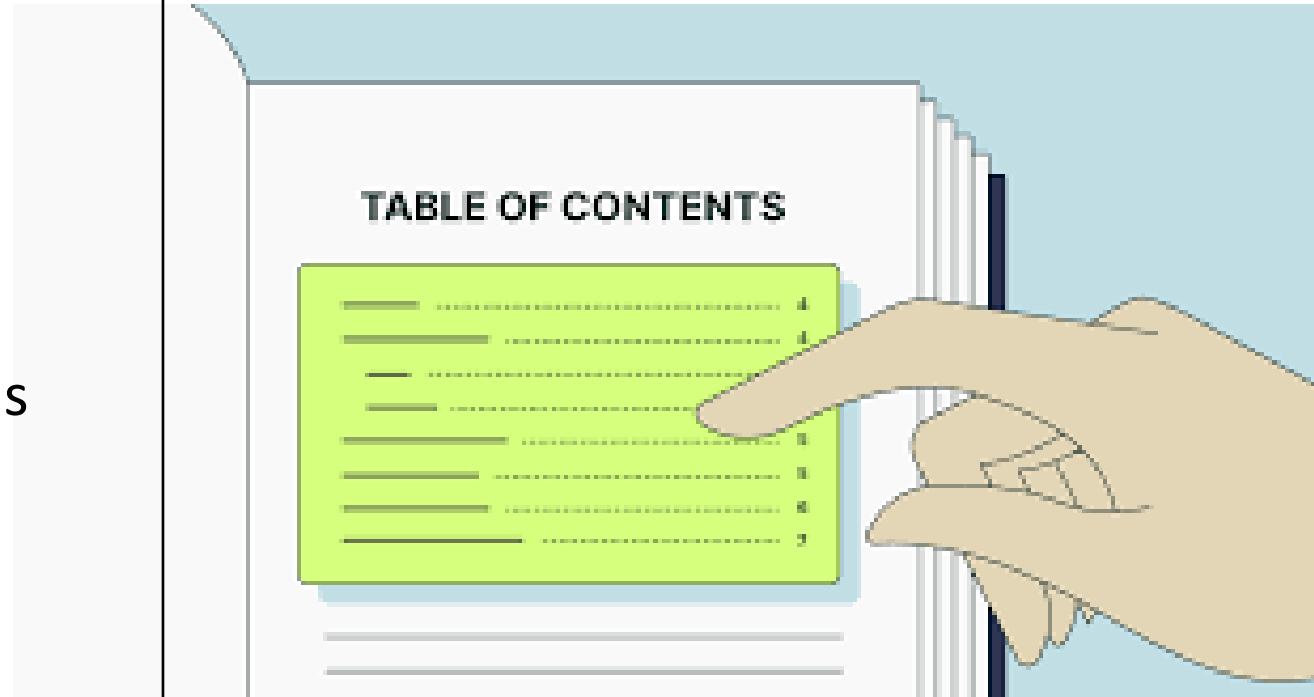
Types of Agriculture

Sustainable Farming Practices

Ethical and Social Considerations

Challenges and Future Trends

Local vs. Global Sourcing



# GROUP ACTIVITY

- Research 6-10 farming facts for the UK/Wales
- Create an infographic highlighting them using Canva or any programme you are familiar with



# What is your impression of agriculture?



# Types of Agriculture

- Commercial Agriculture
- Subsistence Farming

## Types of Farming

Subsistence  
Farming



Commerical  
Farming



# Types of Agriculture

**Commercial Agriculture** - Commercial agriculture is focused on producing crops and livestock for sale in markets. It's often characterised by large-scale operations and the use of modern technology and practices to maximize yields. Examples include large grain farms, industrial poultry farms, and commercial orchards.

**Subsistence Farming** is a type of farming in which nearly all of the crops or livestock raised are used to support the farmer and his or her family, with little, if any, surplus available for sale or trade.

# Commercial Agriculture

**Crop Agriculture** - This type of agriculture is centred on the cultivation of crops for various purposes. It includes:

- 1. Arable Farming:** Growing crops like wheat, rice, corn, and soybeans.
- 2. Horticulture:** Focusing on fruits, vegetables, and ornamental plants.
- 3. Viticulture:** Cultivating grapes for winemaking.
- 4. Floriculture:** Growing flowers and ornamental plants for the floral industry.

# Commercial Agriculture

**Livestock Agriculture** - This type revolves around raising animals for meat, dairy, and other products. Examples include:

- 1. Cattle Ranching:** Raising cattle for beef production.
- 2. Dairy Farming:** Producing milk and dairy products.
- 3. Poultry Farming:** Raising chickens, ducks, and turkeys for meat and eggs.
- 4. Aquaculture:** Cultivating fish and other aquatic organisms.



# Other Types of Farming

**Mixed Farming** - Many farmers combine both crop and livestock agriculture to diversify their income sources and improve soil fertility through practices like crop rotation and animal manure use.

**Organic Farming** - This approach emphasizes sustainable practices, avoiding synthetic pesticides and fertilizers. Organic farmers focus on soil health and often use methods like crop rotation and natural pest control.

**Precision Agriculture** - Also known as smart farming, precision agriculture uses technology like GPS, sensors, and drones to optimize crop management. This includes precise planting, irrigation, and fertilization to maximize yields while minimizing resource use.

# Other Types of Farming

**Agroforestry** - This combines tree cultivation with crop or livestock farming. Trees are integrated into the agricultural system to provide benefits like shade, windbreaks, and timber production.

**Permaculture** - Permaculture is a holistic approach to agriculture that aims to create self-sustaining ecosystems where plants, animals, and humans coexist harmoniously. It focuses on sustainable and regenerative practices.

**Urban Agriculture** - Agriculture in urban areas, which can take the form of rooftop gardens, community gardens, and hydroponics. It helps increase local food production in cities and reduce transportation costs.



farmone

URBAN CHEF'S FARMS OF THE FUTURE

# Beekeeping



# SUBSISTENCE FARMING



*Man Geni Addysg Uwch yng Nghymru*  
*Where Higher Education Began in Wales*

# Subsistence Farming - advantages

- **“Self-sufficiency:** Subsistence farming allows farmers to produce enough food for their own consumption, which helps to ensure their food security.
- **Low input costs:** Subsistence farming typically requires fewer inputs, such as fertilizer and pesticides, compared to intensive farming, which reduces costs and allows farmers to earn a higher profit margin.
- **Conservation of traditional farming practices:** Subsistence farming helps to preserve traditional farming methods and practices that have been passed down through generations.
- **Supports local economies:** Subsistence farming can provide a source of income for local communities and support the development of local economies.
- **Sustainable:** Subsistence farming often makes use of natural resources, such as rainwater and compost, which can help to conserve soil and water resources for future generations”. [Subsistence Farming Vs Intensive Farming Explained | BULB](#)

# Subsistence Farming - advantages

- **“Biodiversity:** Subsistence farming can help to maintain and conserve local biodiversity, as farmers grow a variety of crops and may also raise livestock.
- **Food security:** Subsistence farming provides a reliable source of food for farmers and their families, reducing their dependence on markets and ensuring their food security.
- **Reduced carbon footprint:** Subsistence farming often requires fewer inputs, such as fossil fuels, compared to intensive farming, which can help to reduce the carbon footprint of agriculture.
- **Healthy diets:** Subsistence farming can provide farmers with a variety of healthy, fresh foods, which can help to improve their diets and overall health.
- **Cultural heritage:** Subsistence farming can help to preserve the cultural heritage of farming communities, as traditional practices and knowledge are passed down through generations.”

[Subsistence Farming Vs Intensive Farming Explained | BULB](#)

# Subsistence Farming - disadvantages

- **“Low yields:** Subsistence farming often involves small plots of land and simple tools, which can result in lower yields compared to intensive farming.
- **Food insecurity:** Despite the aim of self-sufficiency, subsistence farming can still result in food insecurity due to crop failures caused by unpredictable weather conditions, disease outbreaks, and pests.
- **Limited income:** Subsistence farmers may struggle to earn a living due to limited resources and markets, as they typically do not produce enough food for commercial sale.
- **Lack of investment:** Subsistence farming often lacks investment in new technologies and resources, which can limit the potential for growth and improvement.
- **Vulnerability to external factors:** Subsistence farmers can be vulnerable to external factors such as changes in government policies, natural disasters, and economic downturns, which can disrupt their livelihoods and contribute to poverty” [Subsistence Farming Vs Intensive Farming Explained | BULB](#)

# Local versus Global Sourcing

- Local sourcing is the sourcing of products or materials within close proximity to your organisation. Be that the same country, or even as close as the same district.
- Global sourcing is the act of sourcing products or services across international boundaries.

(CIPS, 2023)



# Discussion

What are the concerns over global sourcing?

What are the benefits of local sourcing?

Why might restaurants source globally as well as locally?



# Whats Better?

Global Sourcing

Local Sourcing



# Carbon Footprint

According to Mike Berners-Lee, a professor at Lancaster University in the UK and author of *The Carbon Footprint of Everything*, it is “the sum total of all the greenhouse gas emissions that had to take place in order for a product to be produced or for an activity to take place.”



(Mulvaney, 2022)

# What is Carbon Offsetting?

Carbon offsetting funds solutions for reducing carbon emissions. Frequently carbon offsetting reduces emissions much faster than you can as an individual/single company. Carbon offsetting projects help to combat global climate change as well as caring for local communities. In many instances providing much needed employment, health improvement, biodiversity, reforestation and broad social benefits to impoverished communities.

(Carbon footprint, 2023)

# Carbon Neutrality

Carbon Neutral - or Net Zero Carbon - is a term used to describe the state of an entity (such as a company, service, product or event), where the carbon emissions caused by them have been balanced out by finding an equivalent amount of carbon savings elsewhere in the world.



(Carbon footprint, 2023)

# Process for reaching 'Carbon Neutral'

- Drafting a Carbon Management Plan
- Carbon Footprint Assessment & Tracking
- Carbon Reduction Strategy & Reporting
- Carbon Offsetting via fully verified offset projects
- Robust Carbon Neutrality PR / Marketing Statements



Carbon  
Neutral  
PAS 2060

(Carbon footprint, 2023)

# Sustainable Farming Practice

This includes:

- Building healthy soil and preventing erosion
- Managing water wisely
- Minimizing air and water pollution
- Storing carbon on farms
- Increasing resilience to extreme weather
- Promoting biodiversity



# THE FUTURE OF FOOD

# Agroecology

Agroecology is a holistic and integrated approach that simultaneously applies ecological and social concepts and principles to the design and management of sustainable agriculture and food systems.

(FAO, 2023)

# The 10 Elements of Agroecology



Diversity



Co-creation and sharing of  
knowledge



Synergies



Efficiency



Recycling



Resilience



Human and social values



Culture and food traditions



Responsible governance



Circular and solidarity  
economy

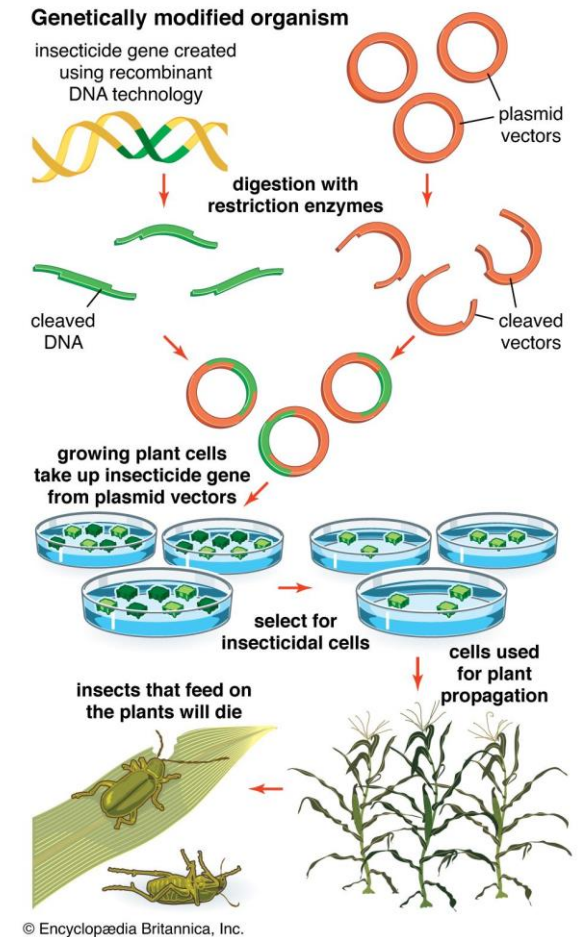
(FAO, 2023)



we think about ourselves as being different

# Legal Considerations

- Laws governing food fit for consumption
  - [General food law | Food Standards Agency](#) - applies to all stages of production, processing and distribution of food and feed
  - Food Safety Act  
<https://www.legislation.gov.uk/ukpga/1990/16/contents>
- Trade regulations
- Transparency and Labelling
- Genetically Modified Organisms (GMOs)
- Food Waste Reduction



# Ethical Considerations

Farming the land carries various ethical and social considerations that have significant implications for the environment, communities, and society. These considerations encompass a range of issues, including sustainability, land use, animal welfare, and the well-being of farming communities.

- Sustainable Land Use
- Environmental Impact
- Soil Health
- Water Management
- Chemical Use
- Animal Welfare
- GMOs and Biotechnology



- Food Security
- Rural Communities
- Land Rights and Ownership
- Biodiversity Conservation
- Community Engagement and Inclusion
- Education and Awareness

# Activity - Social Considerations

- Read this article and summarise the key points regarding social considerations in food sourcing:

<https://www.mckinsey.com/capabilities/operations/our-insights/enabling-socially-responsible-sourcing-throughout-the-supply-chain>

NB decline the cookies!



# Social considerations

- Read this article and summarise the key points regarding social considerations in food sourcing
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# Challenges

Climate Change

Resource Scarcity

Pesticide and Chemical Dependency

Loss of Bio Diversity

Food Security

Rising Costs

# Cultivated Meat



# Future Trends

Precision  
Agriculture

Sustainable  
Farming

Vertical Farming  
and Indoor  
Agriculture

Genetic  
Engineering and  
Biotechnology

Robotics and  
Automation

Alternative  
Protein Sources

Blockchain and  
Traceability

Circular  
Agriculture

Climate Resilient  
Crops

Policy and  
Regulations

Consumer  
Preferences

# Recap

- Commercial Agriculture
- Innovation in Agriculture
- Carbon Footprint and Carbon Offset
- Sustainable Farming
- Ethnical Consideration
- Future Trends

# List of Reference

Berners Lee, M. (2022) *The Carbon footprint of Everything*. Greystone books, UK

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Mulvaney, K. (2022) What is a carbon footprint—and how to measure yours. Available at: <https://www.nationalgeographic.com/environment/article/what-is-a-carbon-footprint-how-to-measure-yours>

ANY  
QUESTIONS?



See You  
Next time!