

Produce, Provenance & Sourcing

BMGM4005

Week 6: Farming – The Land

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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 in greenhouses and gardens.
- 3. Viticulture:** Cultivating grapes for winemaking.
- 4. Floriculture:** Growing flowers and ornamental plants for the floral industry.

Red Tractor



2000

THE YEAR WE WERE FOUNDED



50,000

BRITISH FARMERS WORKING
TO OUR WORLD LEADING
STANDARDS



60,000

CHECKS A YEAR ACROSS THE
SUPPLY CHAIN



£14bn

OF BRITISH FOOD & DRINK
CARRIES OUR LOGO

Red Tractor are a not-for-profit company that is the UK's biggest farm and food assurance scheme. They develop standards based on science, evidence, best practice and legislation that cover animal welfare, food safety, traceability and environmental protection. Around 50,000 British farmers are accredited to Red Tractor standards, which form the basis of buying and sourcing specifications for major supermarkets, household brands and restaurant chains, ultimately making life simpler for everyone.

The Red Tractor logo represents over 20 years of driving world leading British food standards. Since 2000, having worked closely with animal welfare experts, vets, agronomists and the entire supply chain to ensure that whenever you buy a product with the Red Tractor logo, it is traceable, safe and farmed with care.

The assurance covers the entire food supply chain and we work with over 350 independent inspectors to ensure the most robust assessments possible. These inspectors are all appropriately trained and sufficiently experienced – together, they conduct over 60,000 inspections a year.

The Red Tractor logo can only be used on food that has been produced, transported, stored and packed to the required standards as defined by our licensing rules. The standards in all farming sectors (such as chicken, dairy or vegetables) have been agreed by a panel of experts to ensure that our standards are as robust as possible.

HOSPITALITY
AND
TOURISM
MANAGEMENT



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



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

What is your impression on agriculture?





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

Tech Tyfu by Menter Mon



- Tech Tyfu was an original venture into vertical farming.
- Invited applications for free use of vertical farming units.
- Received applications from individuals and businesses.
- Established local, fresh food supply chains.
- Provided webinars, workshops, and specialist advice for skills development.
- Goal: Help growers develop skills in vertical farming without prohibitive upfront costs.
- Growers piloted various crops, growing methods, and materials.
- Preceded Tech Tyfu Scale Up project launching in Spring 2022.
- Funding from Welsh Government Rural Development Fund (RDF 2014–2020).

Bee's Farming



VOA CONNECT

Creating a buzz:
urban beekeeping
at London Met



LONDON
METROPOLITAN
UNIVERSITY

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)

Activity – Local or Global?

- Group Discussion – local sourcing, global sourcing or both?

GI

Geographic Indicator



- Protected Designation of Origin (PDO) – these products have the strongest link to the place they were made (for example, Kalamata Olive Oil)
- Protected Geographical Indication (PGI) – these products emphasise the relationship between the geographic region and the name of the product (for example, Kentish Ale)
- Geographical Indications of spirit drinks and aromatised wines (GI) – these products originate from a country, region or locality where the product's particular quality, reputation or other characteristic is essentially attributable to its geographical origin (for example, Irish Whiskey)
- Traditional Speciality Guaranteed (TSG) – these products highlight the more conventional aspects of a product (such as the way it is made or its composition), without linking it to a specific geographical area (for example, Watercress)

Geographic Indicators

Following Brexit, the UK government set up its own GI schemes and new GI logos were launched:



The rules regarding use of a GI logo on a product are specific to each UK GI scheme. It may be necessary to add the corresponding EU logo to a product depending on where it is sold.

For protected food name products (which includes food, beer, cider, perry and agricultural products) from Great Britain registered **before** 1 January 2021:

- you must add the relevant UK logo to a product sold in Great Britain by 1 January 2024
- you can choose to add the relevant UK logo to a product sold in Northern Ireland or in the rest of the world (unless it conflicts with local regulations)
- you can choose to add the EU logo on a UK protected food name registered under the EU scheme to a product sold in the UK and the rest of the world.

Geographic Indication

For protected food name products from Great Britain registered **after** 1 January 2021:

- you must add the relevant UK GI logo as soon as it goes on sale in GB as a GI product
- you can choose to add the relevant UK logo to a product sold in Northern Ireland or in the rest of the world (unless it conflicts with local regulations)
- you can only use the EU GI logo if the product is registered under the EU GI scheme.

Registered wine products of UK origin may carry the relevant UK GI logo on the product or its label. If you do use it, the logo must be in the same field of vision as the product's registered GI name.

The relevant GI designation ('protected designation of origin' / 'protected geographical indication') must be displayed in full on the packaging.

Registered spirits of UK origin may carry the PGI logo. Again, if you do use it, the logo must be in the same field of vision as the product's registered GI name. The words 'protected geographical indication' must be displayed in full on the packaging.

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)

Activity – What can we do for carbon footprint?

- Group Discussion – What should we do?

Why Carbon Offset?

Carbon offsetting funds solutions to reducing carbon emissions now.

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 funding an equivalent amount of carbon savings elsewhere in the world.



(Carbon footprint, 2023)

Process of 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 footprint, 2023)

Sustainable Farming Practice

- 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

MADE OF INSECTS



Ethical Considerations

Farming on 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

Challenges

Climate Change

Resource Scarcity

Pesticide and Chemical Dependency

Loss of Bio Diversity

Food Security

Rising Costs

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

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