

Agriculture

Technology in agriculture

✱ Mechanisation and loss of labour

- ✱ Machines save time and money in the long run (better efficiency)
 - ✱ e.g. tractors, combine harvesters, seed drills
- ✱ Farm output is high but the number of people involved in agriculture continues to decline =>
- ✱ rural depopulation <=> alternative jobs in the towns and cities

✱ Increased use of chemicals

- ✱ Aim: to improve the quality and quantity of farm productivity
 - ✱ e.g. fertilisers, pesticides, insecticides
- ✱ Traditional practices
 - ✱ e.g. ploughing, irrigation, adding manure, control of grazing and breeding of animals
- ✱ Chemicals = 2 purposes:
 - ✱ 1. to improve the plant food in the soil
 - ✱ 2. to kill unwanted weeds, pests and diseases

✱ Greater accessibility

- ✱ Road building =>
- ✱ roads allow farmers to get their products to a wider area and to distant major urban markets in less time
 - ✱ e.g. refrigerated lorries have allowed milk and other products to get further and stay fresh

✱ Closeness to market:

- ✱ reduces transport costs
- ✱ increases access to services and facilities
- ✱ increases productivity and efficiency

✱ Farm size

- ✱ Since the WWII the number of farms have decreased by 50%
<=> remaining became larger

Loss of labour in agriculture of the UK (1975-1995)
Increase of agriculture machinery in the UK (1975-1995)

Agribusiness

- ✱ = capital-intensive farming on a large scale which produces food for processing factories and supermarkets
- ✱ great deal of money is invested in the farm

- * most efficient machinery and biotechnology
 - * e.g. fertilizers and pesticides
- * **to get the highest output from the land**

- * What do You think:
 - Are meals consumed more in restaurants rather than at home?**

- * 2 major changes in the demand for food:
 - * 1. more food is consumed in restaurants and cafes rather than at home
 - * 2. foods are increasingly frozen and processed before they are bought
 - * e.g. tinned, dehydrated, ready-made meals

- * Food processors:
 - * tendency to *buy land* in order to control the quality and quantity of their raw materials
- * Majority of
 - * food processing companies,
 - * frozen food companies and
 - * supermarket chains
- * **run agribusiness farms in this way**
- * Agribusiness farms characteristics:
 - * very large in size, acquisition of privately-owned small farms into one large farm
 - * many small fields merged into large ones
 - * large fields to allow machinery operate efficiently
 - * specialization in growing only 1-2 types of crop or rearing 1-2 types of animals

von Thünen's Land Use model

- * 1826 – the oldest model of **modern location economics/economic geography**
 - * analytical model of the relationships between markets, production, and distance

- ✱ The relative transport costs of different agricultural commodities to the central market determined the **agricultural land use around a city**.
 - ✱ Concept of economic rent to explain a spatial organization where different agricultural activities are competing for the usage of land.
 - ✱ **Concentric circles around the market**
- ✱ Many concordances have been found
 - ✱ e.g. USA

Keywords

- ✱ mechanisation, tractor, combine harvester, seed drill, rural depopulation, fertilisers, pesticides, insecticides, weeds, pests, diseases, manure, accessibility, lorry
- ✱ capital-intensive farming, food processing industry, supermarket chains, biotechnology, efficiency, demand, offer, tinned/dehydrated meals, acquisition
- ✱ land use, concordances, distance, forestry