

AQA Biology GCSE

7.5 - Food Production

(biology only)

Flashcards

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What is food security?



What is food security?

Having enough food to be able to feed a population.



State the biological factors threatening food security.



State the biological factors threatening food security.

- Rising birth rates
- Changing diets in developed countries → food is transported around the world
- New pests and pathogens
- Environmental changes affecting food production
- Increased cost of agriculture
- Armed conflicts



How does intensive farming increase the production of animals?



How does intensive farming increase the production of animals?

- Feed animals high protein foods to increase growth.
- Reduce their energy loss to the environment:
 - Limiting movement
 - Regulating their surrounding temperature
- Feed animals antibiotics to prevent diseases.



What are the advantages of intensive farming?



What are the advantages of intensive farming?

- Higher yield of food
- More efficient
- Allows easier quality control



What are the disadvantages of intensive farming?



What are the disadvantages of intensive farming?

- May lead to antibiotic resistance.
- Cost is high.
- Ethical objections eg. limiting movement of animals may cause them harm.
- Biodiversity may be reduced.



How can fish stocks be conserved?



How can fish stocks be conserved?

- Control the size of gaps in fishing nets to prevent juvenile fish from being killed before reaching reproductive maturity
- Introduce fishing quotas.



What is a transgenic organism?



What is a transgenic organism?

An organism that has been genetically modified to contain genetic material from another source.



State an example of genetically modified foods.



State an example of genetically modified foods.

Golden rice.



How might crops be genetically modified?



How might crops be genetically modified?

- To improve nutritional value
- To be pest resistant
- To be pesticide resistant



What are the advantages of golden rice?



What are the advantages of golden rice?

It contains additional beta-carotene which can be converted to vitamin A in the body, supplementing people who do not obtain enough Vitamin A in their diet to prevent night blindness from forming.



What is mycoprotein?



What is mycoprotein?

A protein-rich substance used to make meat substitute food for vegetarians and vegans.



How is mycoprotein produced?



How is mycoprotein produced?

Fusarium, a fungus, is grown on glucose syrup, in aerobic conditions and the biomass is harvested and purified to get the mycoprotein.

