

OCR (A) Biology GCSE

B6.2 - Feeding the human race

Flashcards



Give 5 factors that affect food security



Give 5 factors that affect food security

- The human population size
- The number of pests and pathogens
- Global warming and climate change
- Wealthier parts of the population requiring a larger variety of food
- The high cost of farming methods



What is hydroponics?



What is hydroponics?

Growing plants in nutrient mediums other than soil



What is biological control?



What is biological control?

Controlling pests by deliberately introducing natural predators of the pest



How can gene technology help agriculture?



How can gene technology help agriculture?

Beneficial genes for pest resistance or the ability to grow in harsher conditions could be introduced



How can fertilisers and pesticides help agriculture?



How can fertilisers and pesticides help agriculture?

- Pesticides kill pests that could harm the growth of the plant
- Fertilisers provide the plant with all the nutrients it needs so that it can grow more quickly



Describe how selective breeding is carried out



Describe how selective breeding is carried out

- Animals with the desired traits are chosen
- These animals are bred together
- Repeat the process until the offspring have the desired traits



What is genetic engineering?



What is genetic engineering?

Altering the genome of an organism



How are new genes introduced into an organism? (Higher)



How are new genes introduced into an organism?

(Higher)

- The organisms genes are cut using restriction enzymes to create sticky ends
- The DNA from a bacterium is also cut to produce sticky ends
- The gene is inserted into the bacteria along with an antibiotic resistance gene
- Antibiotics are used to remove the bacteria that do not have the new genes



What is a transgenic organism?



What is a transgenic organism?

An organism that contains foreign DNA



Give 2 advantages of genetically modified crops



Give 2 advantages of genetically modified crops

- Better crop yields
- Food will last longer and taste better



Give 2 disadvantages of genetically modified crops



Give 2 disadvantages of genetically modified crops

- The new genes can easily spread to other plants in the environment
- We don't know what long term effects GM crops cause on health

