

OCR (A) Biology GCSE

B6.2 - Feeding the human race

Flashcards

Give 5 factors that affect food security

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- 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?

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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?

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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

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- 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?

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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

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- 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