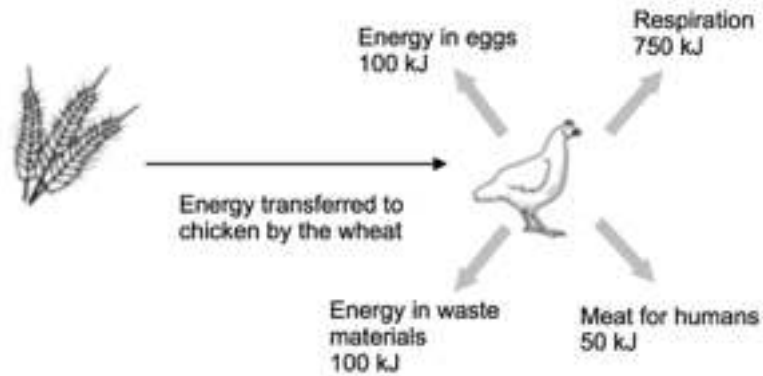


0	1
---	---

The diagram shows the transfer of energy in a simple food chain.



0	1	.	1
---	---	---	---

Calculate the following:

The energy transferred to the chicken by the wheat.

Energy = _____ kJ [2 marks]

The energy transferred to the humans in food

Energy = _____ kJ [2 marks]

0	1	.	2
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Suggest why all the energy in wheat may not be transferred to chickens. [1 mark]

0	1	.	3
---	---	---	---

In the example above the chicken lives in a pen (space with a fence around it) which has an area of 25 m². Chickens are sometimes kept in indoor cages that restrict movement. Evaluate the method of growing chickens in indoor cages that restrict movement. [3 marks]

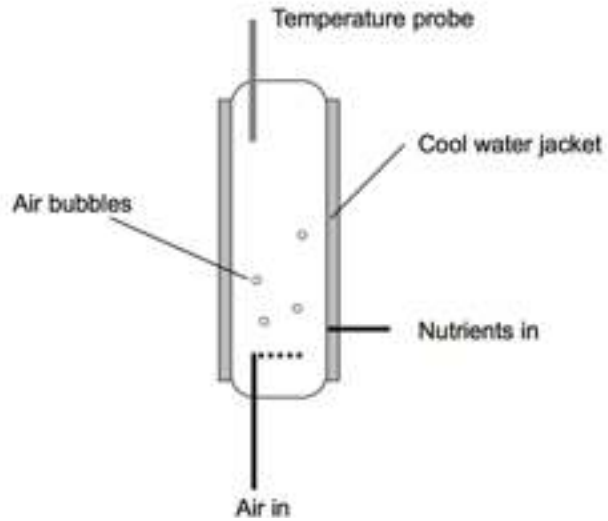
advantages

Disadvantages

0 2 . 1

Mycoprotein is a food source produced from a type of fungus called *Fusarium*. It can be grown in fermenter.

The diagram shows a representation of some parts of the mycoprotein fermenter.



Describe how *Fusarium* is grown in the fermenter to make sustainable food

[5 marks]
