



Food storage for your Farm

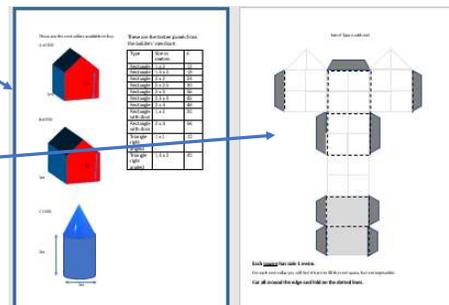
Thinking about nets and volume in context

- You can grow food for much of the year, but during the winter there would be very little food available to harvest.
- You need food all year round; we don't hibernate like the bears, as much as some of us may want to.
- So, you will need to store a large amount of your harvest safely in a building known as a root cellar.
- These can be bought or built at differing expense. If it costs more than the funds available you will need to keep your calculations to take to the bank manager for a loan.

1

Which root cellar holds the most for each £?

- You have an information sheet with the types of root cellars you can buy with their prices, but not with how much they all hold.
- You have been given 2 sheets with nets of two of the root cellars. You need to make these up and calculate their volumes. Can you name the different solid shapes? Then decide which is the best value for money. (Remember the bank manager!)



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Self-building the root cellars.

- The local builders' merchant is selling the panels in the chart. How much would it cost to build the root cellars you made up from nets using these panels (show how many of each you need as well as the cost)? Are there other things you may need that are not listed?
- Which is the best value root cellar now?

Panel	Units	Price
Panel A (1.0 x 1.0)	10	1.00
Panel B (1.0 x 2.0)	10	1.50
Panel C (2.0 x 2.0)	10	2.00
Panel D (1.0 x 1.5)	10	1.20
Panel E (1.5 x 1.5)	10	1.80
Panel F (1.0 x 1.0)	10	1.00
Panel G (1.0 x 1.0)	10	1.00
Panel H (1.0 x 1.0)	10	1.00
Panel I (1.0 x 1.0)	10	1.00
Panel J (1.0 x 1.0)	10	1.00
Panel K (1.0 x 1.0)	10	1.00
Panel L (1.0 x 1.0)	10	1.00
Panel M (1.0 x 1.0)	10	1.00
Panel N (1.0 x 1.0)	10	1.00
Panel O (1.0 x 1.0)	10	1.00
Panel P (1.0 x 1.0)	10	1.00
Panel Q (1.0 x 1.0)	10	1.00
Panel R (1.0 x 1.0)	10	1.00
Panel S (1.0 x 1.0)	10	1.00
Panel T (1.0 x 1.0)	10	1.00
Panel U (1.0 x 1.0)	10	1.00
Panel V (1.0 x 1.0)	10	1.00
Panel W (1.0 x 1.0)	10	1.00
Panel X (1.0 x 1.0)	10	1.00
Panel Y (1.0 x 1.0)	10	1.00
Panel Z (1.0 x 1.0)	10	1.00

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How much storage does your family need?

- The food you need to store for your family depends on how many people there are. Your house can hold only one person for every 4 squares. A house with 8 squares has 2 people, 12 squares has 3 people... You need 16m^3 of vegetables per person to see you through the winter, barring any disasters.
- You have a good harvest of 4m^3 per square of each crop. Do you have enough crops to feed your family, for the year?
- How much storage do you need for your current family's food?
- Which is the best type of root cellar for your current family's needs?



4

Storing extra harvest.

If you have food surplus to requirements you may be able to feed it to your animals in the winter or sell it.

But you still have to store it until it is sold or used.

Which size root cellar will hold your current food surplus?

How much will it cost to buy/ build?



5

Damage to root cellars.

- If you have bad weather and your root cellar is damaged, then the insurance company should pay out in full for the repair or replacement of the cellar but they may only pay out for half the food inside! Now what?



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