

CHOCOLATE

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Part 1

1. In a recent survey of people in the United States about chocolate how much chocolate is consumed? What was the type of chocolate that the majority preferred?
2. In what type of geographical area do cocoa trees grow?
3. What are the names of the peoples who discovered the properties of the cocoa tree hundreds of years ago?

Part 2

4. How do we know that the Aztecs considered cocoa beans really valuable?
5. What type of places were the 'chocolate houses' that opened in London in the 17th century?
6. What is the name of the man who developed the first chocolate bar in the 19th century?

Part 3

7. What colour are the cocoa pods and about how many beans are found in each one?
8. What is the first step in the manufacturing of cocoa?
9. What process is used to produce the flavour in the cocoa beans?

Part 4

10. What are the different ingredients for chocolate found in the processed cocoa bean?

11. What is the important characteristic of cocoa butter which food scientists cannot easily replicate?

12. What is the reason for including lecithin in the make-up of chocolate?

Part 5

13. What is the next process after mixing the ingredients together and why is it necessary?

14. Why is it necessary to heat and stir the chocolate mixture for 24 to 48 hours before it is ready to be moulded into bars?

15. What qualities does liquid chocolate need to set successfully into moulds?

Part 6

16. In the conching process why is only a small percentage of the cocoa fat solidified?

17. If the chocolate is to be coated onto a biscuit what is the important quality that the chocolate must have?

18. Explain what is meant by a 'compromise' which the lecturer mentioned.

Part 7

19. As a good quality bar of chocolate, what is important in room temperature?

20. A good bar of chocolate should have a good snap and a good gloss. What does this mean?

21. What is the life time of the bar of chocolate, and how long should chocolate be stable without deteriorating?

Part 8

22. What quality is particularly important whilst the chocolate is being manufactured?

23. What does the lecturer say about the consequences of eating bars of chocolate?

24. What conclusion does the lecturer come to on the benefits and disadvantages of eating chocolate?

Key

1. 7 kilos per year, and 67% prefer milk chocolate to dark chocolate.
2. In tropical rain forests around the world.
3. They were the Mayas and the Aztecs of Central America.
4. When the Spaniards won battles against them they found that their most highly valued goods were not 'treasure' i.e. gold, but cocoa beans.
5. They were clubs where aristocratic men would meet to drink chocolate and discuss to discuss politics and other matters.
6. His name was Joseph Fry and he developed it with his sons.
7. The pods are an orange or yellow colour and contain about fifty beans per pod.
8. Cutting the pods from the trees and then cutting open the pods.
9. The beans are roasted and then ground to produce cocoa powder.
10. Cocoa butter and cocoa powder.
11. The ability of the cocoa butter to change rapidly from a solid block when handled to a liquid in the mouth.
12. It keeps the price down as with lecithin added less of the expensive cocoa butter is needed to get the same 'mouth feel' i.e. the texture we expect of chocolate.
13. The next process is milling and it is needed to reduce the particle size so that it has a smooth feel when we put it in our mouth.

14. To get rid of the acid and bitter flavours and to make the texture much smoother.
15. It has to be fluid when poured into the moulds, have a low viscosity so that it will not stick to the moulds, it needs to be able to set into a solid mass and to contract so that it can be removed cleanly from the moulds.
16. If more were allowed to solidify it would become too thick to pour and it wouldn't fill the mould properly.
17. It must be important that the chocolate picks up cleanly the decoration in the mould to show a uniform pattern on the finished biscuits.
18. The manufacturer wants to use as little chocolate as possible in order to cost them as little money as possible. On the other hand, if the manufacturer uses too little chocolate, people will not buy the product, because it is not attractive to them. So the manufacturer has to compromise between the quantity of chocolate he uses in the product and its cost.
19. It is important that if you leave a bar of chocolate on a bench in room temperature, it doesn't melt.
20. It means that with a good quality bar of chocolate, you can break it with a snap. Also when you look at the surface of the bar of chocolate, it should appear glossy, or shiny.
21. The life time of the bar of chocolate is about a year or 18 months, and chocolate should be stable for one or two years without deteriorating.
22. It must be resistant to melting even when in a warm temperature in the factory.
23. He says that a chocolate bar is quite a good source of energy but that too much chocolate eaten without exercising can lead to obesity.
24. That there are positive effects and negative effects from eating chocolate and that you need a diet which includes a wide range of foods to have the most healthy life style.