**National 4 Biology**

Cell Biology





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| **C:\Users\Marjorie\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\MLJ3XKKZ\MC900215775[1].wmf Cheese Making** |

There are several steps in the manufacture of cheese:

* the milk is pasteurised to kill most of the bacteria
* special bacteria are added to convert the milk sugar (lactose) into lactic acid
* enzymes are added to clot the proteins in milk

The milk clotting enzymes (rennet), which were used originally, always came from animals such as calves. Nowadays the rennet enzymes used in cheese making can come from a variety of different sources:

* calves rennet
* an rennet-like enzyme produced by a fungus
* genetically modified rennet which has been manufactured using yeast

We are going to investigate the milk clotting stage using these rennet enzymes.



(More information about the cheese making process can be found in the cheese making help cards)

RESULTS: Time to clot = Class average time to clot =

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| --- | --- | --- | --- |
|  | at start (point 1) | after adding rennet (point 4) | at end (point 6) |
| pH |  |  |  |