

Technological Studies on Some Surface White Mould-Ripened Cheeses

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(1989 B.Sc. Agric. (Dairy Sci.) Faculty of Agriculture, Fayoum, Cairo University)

M.Sc (Food Science and Technology) Food Chemistry Department, Cork University, Ireland (1995)

> Thesis Submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy

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Agricultural Science (Dairy Science) Dairy Department, Faculty of Agriculture, Fayoum University

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Conclusion

1. From the studies that done and from previous results the best cheese treatment for making Camembert cheese was cheese that made from mixture of C: B milk (1:1). Also Goats' milk, when used in the manufacture of Camembert cheese, gives cheese with accepted quality.

2. Using *B. linens* with *P. candidum* has good effect on taste and quality of the resultant Camembert cheese but negatively affect the color and appearance than when using *P. candidum* only.

3. The time of salting of cheese treatments; when extended in saturated solution to 2 hr. instead of 1 hr. also with adding *B. linens* with *P. candidum* improved the organoleptic properties of the resultant Camembert cheese. On the other hand some of the stuff members felt a very low bitter taste at 3 weeks age of ripening, hence the study made in Section (C) was to overcome this little feeling with bitterness and also improve the colour and appearance of the resultant cheese.

4. Using both *P. candidum* and *Geotrichum candidum* in the manufacture of Camembert or Brie cheeses leads to an improvement in the taste and appearance of both cheeses and also their texture and flavour was improved.

1. The best Brie cheese treatment was the cheese that made from cows' milk with using both *P. candidum* and *Geotrichum candidum*.

2. From the obtained results it was also noted that the dominant FAA were glutamic acid, aspartic acid, proline and ammonia in all cheese treatments. While the lowest amount of FAA was for cystine in all cheese treatments. On the basis of these results, it is strongly suggested that glutamic, Aspartic acids and proline play an important role in the flavor of the Camembert cheese.

From the previous it is concluded that using *G. candidum* in the manufacture had best effect for improving the flavour and quality of the cheese, where it reduced the bitter taste in the resultant cheese till 3 weeks age of ripening.

Finally, from the above results it is concluded that using cows' milk or mixture of cows': buffaloes' milk (1:1) with using both *P. candidum* and *G. candidum* and extending time of salting to 2 hr. gives the best organoleptic properties.