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**SECTION IV**  
**SUMMARY AND CONCLUSION**

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## **SUMMARY AND CONCLUSION**

In this study the problem of wheying-off of Domiati cheese was undertaken. The most factors studied and related to this phenomenon are: casein/fat ratio (C/F), NaCl content and acidity. The most changes in cheese quality packaged in polyethylene bages without brine are also followed.

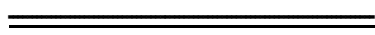
The results are summarized and partitioned into three parts:

**Part I:** Evaluation of market Domiati cheeses were analysed for the composition and wheying-off as well as the general quality.

- The average composition of cheeses is in the range of Domiati cheese. The average are: moisture, 51.4%; fat, 21.63%; protein, 20.05% and salt, 7.97%.
- The rate of wheying-off is differed markedly between cheese samples, it ranged between 1.66 to 22.13%. The cheeses of higher pH gave higher tendency for wheying-off, while the wheying-off decrease with the decrease in pH and increase in moisture content.
- The compositional quality for market Domiati cheeses are: FDM: 44.51; MNFS, 65.54; S/M, 15.84 and pH 5.47.

**Part II:** Controlling of the compositional quality of Domiati cheese:

- The effect of C/F ratio on:
  - 1- The curd firmness and curd syneresis are increased with the increase in C/F ratio.



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**SUMMARY AND CONCLUSION**

2- The wheying-off was inversely related to the C/F or CT. The higher initially pH and moisture content cheeses are the greater in wheying-off.

- Effect of NaCl:

1- The results mentioned to the weakness effect of NaCl on CT which is more obvious on the higher C/F ratio.

2- The higher the NaCl content cheeses are the lower for curd syneresis or wheying-off.

- Effect of the acidity:

The curd of lower pH showed less syneresis compared with the higher pH curd and this behaviour was reversed at higher C/F ratio and lower pH curds.

The results also indicated that as the pH decrease during storage the tendency for wheying-off is greater.

**Part III:** Assessment of Domiati cheese quality during ripening:

- The wheying-off may be prevented or at minimum after 7 days storage.
- The cheeses of lower initial pH is very fast to expel whey during storage, i.e. most of the expelled whey is released during the first day of storage.
- The cheeses of low acidity extend for wheying-off very slowly, and it is a very big problem during storage.
- Ripening of Domiati cheese without brine required low temperature. The cheeses stored at room temperature have low

===== **SUMMARY AND CONCLUSION**

shelf-life (7-days) compared to 30-days for cheeses stored at refrigeration temperature.