



DESIGN OF COLD STORAGE FOR VARIOUS  
AGRICULTURES PRODUCT

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## **ABSTRACT**

Refrigeration and freezing of perishable food products is an important and fascinating application area of heats transfer and thermodynamics. Refrigeration slows down the chemical and biological processes in foods and the accompanying deterioration and the loss of quality. The storage life of fresh perishable foods such as fruits, meats, fish and vegetables can be extended by several days by cooling, and by several weeks or months by freezing. There are many considerations in the design and selection of proper refrigeration and heat transfer mechanisms, and this thesis demonstrates the importance of having a broad base and a good understanding of the processes involved when designing heat transfer equipment. For example, fruits and vegetables continue to respire and generate heat during storage; most foods freeze over a range of temperatures instead of a single temperature. The quality of frozen foods is greatly affected by the rate of freezing: the velocity of refrigerated air affects the rate of moisture loss from the products in addition to the rate of heat transfer. Economics aspect is very important to build the cold storage because of this aspect we build a multi purposed cold storage, if we build the cold storage just for only one product its bad for budget, and the second important think to consider for build a cold storage is the efficiency of equipment we design. We start this thesis with an overview of the general considerations in the refrigeration of foods product. In the other sections we describe the distinctive features and refrigeration needs of fresh fruits. Finally, we consider the selecting the equipment for the cold storage rooms.

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