Assignments Food Freezing
Course 1 Part 1 6-17-15

Definition of Chilling and Freezing
Chilling and Freezing are important operations in the present day provision of food to the consumer. Explain the differences between chilling and freezing and explain why certain produce are mainly offered as chilled or frozen produce/product.

If you lower the temperature of a product by 10°C how much would you extend its shelf life?

In all technical operations some definitions are used. In freezing the freezing rate plays an important role, explain the difference between the two specifications [(cm/h);(°C/h)] which ;specifications is of more practical relevance.

How are the quality specifications High Quality Life (HQL) and Practical Storage Life (PSL) defined and which of the specifications is more relevant to your situation.

Products suited for Deep Freezing and Frozen Storage
Do you have any ideas about generic (almost raw i.e. not very much processed like blanched peas) products frozen in your area?

Try to obtain information on the frozen Food market in your area and neighboring countries.

What are the best selling deep frozen foods in your area? How many brands do you find in the retail shops?

Where is the largest frozen food market in your area? What types of retail cabinets are being used? At what temperature level are they being operated? Try to find out where the refrigeration equipment is being located! What type of equipment is being used (absorption or compression machines)?

If you walk through a department store what type of frozen foods to you find in the retail cabinets in contrast to small retail outlets?

In case you find a retail cabinet which is operated at a temperature of a) -19°C; b) -15°C; c) -10°C would you suggest to the consumers in the shop to buy the material located in the cabinet? What would be your suggestion to the shop steward?

Recommended Storage Times for different Product Groups
Major deep frozen/frozen products are:
- Ready prepared meals: All kind
- Meat: Beef, Pork, Lamb, Rabbit
- Poultry: Chicken, Duck, and Turkey

Is this also true in your country? What are the major products in your country and what product from your country should be added to the list of products to be deep frozen/frozen?

What are the storage times of major products from your area? What is the quality of deep frozen products sold in your neighborhood?

The Frozen Food Chain
Try to collect information on the structure of the frozen food chain in your country/area:
Where are the producers located? Where are the major (central; distribution) cold stores located? What is the preferential means of transportation? In which way are the transport units refrigerated? What are the weak elements in the frozen food chain of your area?