LECTURE 1

1.0 PACKAGING

Is the use of containers and components plus decoration or labeling to

(i) Protect

(ii) Contain

(iii) Identify

(iv) Merchandise

(v) And facilitate use of products.

One or a combination of these elements may be involved.

Today virtually every manufactured or processed food product required packaging in some phase of production or distribution.

Increasingly this packaging function requires specialized skills, machinery and facilities to produce packages that meet one or more of four basic demands

1. To make it easier and safer to transport
2. To protect the product against contamination or loss
3. To protect against damage or degradation
4. To provide a convenient means of dispensing to the exterior

The Addition of printing or other decoration to the exterior of packages serve

(a) To identify the contents as to types and quantity

(b) Identify the manufacturers brand and quality grade

(c) Attract the buyer's attention

(d) Persuade buyer to purchase

(e) Instruct purchaser on how to use the product

BACKGROUNG:

Food containers and their utilization go back to the dawn of history. Food items to be stored or transported called for packaging. May different things were used

- Leaves
- Hollowed-out plant limbs
- Gourds
- Skins
- Reed Baskets
- Earthenware vessels

In time containers were improved or developed to meet the special needs of nomadic tribes

- Agragrians
- Merchants, traders and even for religions and war

The antecedents of some modern containers such as glass bottles and certain pactaging practices like lebelling are very old.

Glass bottles were used in Egypt more than 4,000 year ago. Marks and signatures, symbols and seals of various types appeared on the very first glass bottles used in commerce. The carliest paper originated from China about 200 B.C. Egyptians and Greeks used it about 500 B.C. and the Arabs learned the art from the Chinese during the Chinese invasion of 751 AD.

The tin can owes its origin to the discovery in 1200 AD by Bohemian artisans of a hot dip process for plating tin onto thin sheets of iron. The Romans used lead in many ways including water pipes and ointment jars.

Until about 1800, the making of packages was a craft or an art. It was the industrial revolution which produced advances in containers invention and fabrication resulting in the container forms we are familiar with today.

- Metal cans
- Glass jars
- Collapsible tube
- Folding Carton
- Corrugated shipping case
- And crown caps for bottles.

During the latter part of the 19th century into the early part of the 20th century, the groundwork was laid for mechanized production of all standard container forms. Simultaneously with this, linotype, photoengraving, process colour-printing and several graphic-art processes were developed thus completing the combination of container + effective decoration which has made modern packaging possible.

Between 1900-1930 several revolutionary products were discovered:

- Glassine
- Kraft paper
- Cellophane
- Aluminium foil

These provided the basis for a whole new development in

FLEXIBLE PACKAGING

The search for new materials thus stimulated by these discoveries has lead to spectacular discoveries since 1940 when

- Polyethylene
- Polyester
- Polypropylene
- Stretchable paper
- Steel foil
- Ionomers and a host of improved, coated or
- Laminated materials were introduced

Development of sophisticated merchandizing techniques was occurring parallel to that in packages making. It is these two mutually related factors which lead to the flood of packaged products that has never stopped growing in volume and variety. We are now in the era of CONVENIENCE PACKAGING.

Right along with these developments, machinery has been evolved for all phases handling, filling, closing, labeling and shipping of packaged products. Lines of machinery tailored to the needs of every conceivable food product and any type of container can be found. A new science of packaging management and packaging methods has been born.