PRINCIPLES OF PRESERVATION AND CURING

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This phase of instruction in our basic meats course is a "must."
The first methods employed to preserve foods were probably drying and smoking.
Early man was concerned primarily with quantity. Today man is concerned also
with quality and recognizes among food problems those relating to purity and
clenliness of foods supplied to the public.

The object of preservation is to keep foods for relatively long
periods and still maintain their quality. Preservation may be accomplished
in meat products by (1) the addition of chemical substances. Curing is an
example; (2) using low temperatures. Refrigeration at chilling temperatures
is a temporary method of preservation and freezing preserves the product for a
longer period of time; (3) using high temperatures such as are used in canning;
(4) abstraction of moisture or drying.

Proper curing methods are an important part of our basic meats course
at North Carolina. It has been estimated that from 10 to 20 per cent of the
cured pork is lost annually in many of the counties in North Carolina. Assuming
that 75 million pounds are cured annually and that the average loss for the
state is 10 per cent this would be a loss of 7½ million pounds of pork annually.

lard and shortening

It would be desirable to include both the problems encountered in
rendering lard on the farm and in the packing house. In the discussion of
farm lard rendering the percentage yield, most acceptable containers for render-
ing the pork fat and correct methods of storage might be emphasized.

The packing house lard can be classified according to the method of
rendering and differences between these methods should be pointed out. Newer
methods of rendering lard by the packing industry are important as well as the
use of anti-oxidants to prolong storage life.

lard substitutes and shortenings are gaining in popularity with the
consumer. The advantages and disadvantages of lard substitutes and shortenings
should be discussed.

SAUSAGE MANUFACTURE

It has been estimated that one out of 12 pounds of meat produced in
the United States is consumed as sausage. To introduce this topic a brief
history and the present status of the sausage manufacturing industry should be
sufficient. Further information might include the equipment, ingredients,
containers, quality and yield necessary to produce a desirable product. A
classification of sausages and examples of each could be a part of the lecture
material presented on sausage manufacture.

Federal regulations as they apply to sausage manufacture and problems
relating to discoloration, packaging, rancidity, etc. may be discussed if suf-
cient time is available.
PACKING INDUSTRY: ORGANIZATION AND OPERATION

The packing industry handles a large percentage of the meat products that are sold. The main factor responsible for the growth of this industry is concentration. This concentration reduces the consumer cost of the edible portion of the animal. Here again a brief history of the development of the industry might be desirable. The location, efficiency of operation, inspections and various departments of the packing plant can be included as a part of the training. The fact that there are opportunities in the packing industry for college graduates who have majored in animal husbandry should be emphasized.

LIVESTOCK MARKETING AND LIVESTOCK LOSS PREVENTION

Livestock marketing as it relates to the price received for the carcass and purchase of livestock on a grade or yield basis should be included as a part of the basic meats work.

The bruising of livestock may well be considered the major problem in loss prevention work. Proper instruction in this part of the course may help eliminate losses which reduce the value of livestock and meat products. It would be desirable to cover the extent of injuries, types of bruises, location on carcasses and the monetary loss. Providing better overall facilities, stockyard safety programs, truckers safety programs, and the proper farm facilities could be emphasized as means to reduce losses.

MERCHANDISING: WHOLESALE, WITH METHODS OF DISTRIBUTION

The student should be acquainted with the transportation of the wholesale product from the central plant to the branch house and the problems encountered in selling the wholesale product. The trend to eliminate the wholesaler and sell the product direct to the retailer could be an important part of the training in this phase of the basic meats course.

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MR. CAHILL: Thank you very much, Bill.

We are at the point of the program now where the chairman must openly admit his inefficiency. I suppose that when R. A. Edgar, of Virginia Polytechnic Institute, wrote and said that he could not attend this year an efficient chairman would immediately have transferred that responsibility to some other member of the committee. They were, however, already busy on their various topics, and so I assumed the task of Bob Edgar and will pinch-hit for him in discussing this last portion of the lecture outline.

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