5-14-1954

For More Efficient Production of Beef, Pork and Lamb
for more efficient production of

Beef, Pork and Lamb

College of Agriculture
The University of Nebraska
Lincoln
Completion of the Meat Laboratory marks another long step forward in the University's program of service to the livestock industry. It is dedicated to more efficient production of beef, pork and lamb, through research and teaching.

May 14, 1954
A Modern Building

The Meat Laboratory is a three-story brick and concrete building in the northeast part of the Agricultural Campus. The building is L-shaped, 112 feet by 38 feet with a wing at the rear 60 feet long and 45 feet wide. It was designed as a low-maintenance building, meeting all modern sanitary requirements. It is in no sense a packinghouse but was planned for teaching and research.

On the first floor is a killing floor with a receiving room, cleaning room and a balcony for visitors. There is a cutting room with adjacent coolers and freezers. The instructors' office is conveniently located near the front entrance. There is a processing room in which experimental cutting may be done and where the meat may be finally trimmed and packaged before it is delivered to its owners.

On the second floor is a research laboratory which will be equipped for chemical, histological, and bacteriological work with meat. A modern kitchen provides facilities for research and demonstrations in meat preparation. There is a lecture room seating 65.

The basement contains a smokehouse, men's locker and lavatory, store rooms, refrigeration room and four coolers. There is a well lighted laboratory where sausage making, rendering, curing, and canning may be done.

Much of the building is air-conditioned, making it possible to do meat work during the summer.
Meat research is of two general types. First there is the "service" work which seeks to evaluate and interpret breeding, feeding and management experiments. Nebraska packers have been very cooperative in supplying this kind of information in the past. However, in the modern commercial plant, operations are carried on with such speed that it is not possible to make the detailed observations so often necessary. These observations may now be made more effectively in the meat laboratory.

Where necessary, cooking tests and palatability studies may be used to evaluate the eating quality of meat.

The second type of research is so-called "fundamental" work. It is designed to answer questions like "What makes meat tender?" "What gives meat flavor?" "At what temperature should frozen meat be stored?" Facilities are provided in the meat laboratory for chemical, histological, and bacteriological studies with meat. In the by-products laboratory, experiments may be conducted in curing, rendering, sausage making, canning, freezing and related subjects.

Staff members will cooperate closely with other University departments and with other research workers who can make contributions to the solution of mutual problems.
(Above) A well-lighted, air-conditioned research laboratory provides facilities for chemical, bacteriological and microscopic studies with meat.

(Right) Smoked, tenderized, or ready-to-eat meats may be prepared in the modern, thermostatically controlled smokehouse.
... for Teaching

The Meat Laboratory will strengthen the teaching program. Students entering the packing or related industries will gain valuable experience, but more important are the benefits to other Animal Husbandry students. By learning what is "under the hide," our students will receive a better background for good production and management practices.

Judging classes may now correlate "on foot" characteristics with carcass quality. Livestock producers may study the effect of various rations and management practices upon carcass grade.

Home Economics students, particularly those interested in institutional management, will have an opportunity to appraise meat quality, and to select proper preparation methods for various cuts and kinds of meat.

In addition to providing facilities for University classes, the Meat Laboratory offers accommodations for industry groups. The Nebraska Frozen Food Locker Association has already used the new Meat Laboratory for an annual convention. The Association is now interested in developing a short course here. The Hotel and Restaurant Association and similar organizations will find unexcelled facilities for meetings and demonstrations.
(Above) Lecture sessions for meats classes are held in this airy classroom which is equipped with many modern teaching aids.

(Right) Agricultural College students gain practical experience in slaughtering meat animals and in cutting and curing meats.
Nebraska's Cash Farm Income
$ 922,271,600 per year
Ten-year average, 1943-1952

- Cattle and Calves: $309,996,800 (33.6%)
- Hogs: $165,819,100 (18.0%)
- Sheep and Lambs: $205,328,000 (22.2%)
- All Other Sources: $425,922,900 (46.2%)