

Mechanically deboned poultry meat discussed

By JOYCE BUPP
Staff correspondent
STATE COLLEGE --
Media representatives got the chance Tuesday to view first-hand some of the ag-related research underway at the Pennsylvania State University. Hosts for the College of Agriculture's "News Day" were representatives of the administration and educational staff.
Program planners incorporated a variety of study programs in the informational seminar, including plant and foods

research, human obesity, home foods processing, and energy conservation for greenhouses.
Methods and regulatory aspects of mechanically deboned meat was the subject of the lead-off presentation by Morris Mast, associate professor of food science and Extension food scientist. Mast specializes in poultry and egg studies and has conducted in-depth research on the properties and preservation of poultry and mechanically deboned poultry meat.

Mechanically deboned poultry meat (MDPM) has been used in the foods processing industry for about 15 years. Present meat packaging laws allow up to 15 per cent of the product to be used in the contents of frankfurters and there are all-poultry types of the frankfurter as well. Other common uses of the deboned poultry meat might include rolls, soups, salads and similar prepared, processed foods.

About 200 million pounds of meat was made available to the food industry last year from the MDPM utilization of turkey frames, poultry backs and necks and entire carcasses of spent fowl. This material is augured into an automatic deboner where the meat and bone is finely chopped and then passed through a separator. The soft tissue materials are forced through a screen or sieving process, usually under high pressure, separating them from the hard bone, tissue, and gristle portions.

The meat product is then rapidly cooled and processed or quick frozen within hours.

Researchers have encountered a few problems with the deboned poultry products. Rancidity from incorporated fat particles may develop if stored for long periods of time without freezing. Methods of heating to destroy rancidity-causing bacteria have been tried, but some functional proteins are



Morris Mast

denatured from the treatment. Improved chilling methods are also coming under expanded research.

Under present regulations governing MDPM, the per cent of bone solids in the finished product must be below one per cent. In 1976, the United States Department of Agriculture proposed that the minimum protein content for raw

chicken meat and raw turkey meat be 15 and 16 per cent respectively. Proposed maximum fat content is 30 per cent. Final nutritive value requirements have not yet been issued.

Only a small percentage of the MDPM now being produced contains the proposed minimum protein content. Therefore, the poultry foods industry has requested that USDA standards be set at 11 per cent minimum protein for raw chicken meat and 12 per cent for raw turkey meat. Industry recommendations would also lower the maximum fat level to 26 per cent.

At the root of the mechanical deboning popularity is dollar-figure

economics. Success with the poultry product has now sent red meat packagers into study programs for the utilization of other meat by-products

By processing materials that formerly could only be used in production of pet foods or fertilizers, the poultry foods industry can obtain carcass yields of up to 75 per cent of edible bone-free meat with a high quality protein content.

As the shelf life and taste acceptability of MDPM products are improved by research and consumer exposure, demand for this potential one billion pounds of additional protein in the food chain will take its place in the eating habits of the American public.

4-H communications winners announced

READING - The Berks County 4-H clubs met recently at the Berks County Agriculture Center in Leesport for their annual 4-H Communication Day. The

event featured demonstrations, speeches, photographs, and posters presented for competition by 4-H'ers from throughout the county.

The demonstration contest featured subjects ranging from cleaning horses to the developing of photographs and much more. Junior division contest winners were: Mike Miller of Southeastern Berks County Horse and Pony 4-H Club, and Michelle Swavely of the Hereford Horse and Pony Club.

These 4-Hers will continue their competition at the Annual Regional Southeastern 4-H day in July to be held at the Montgomery County 4-H Center in Lansdale.

Three senior demonstrators, Larry Stratton, Kutztown 4-H Club, Barbara Schroeder, Kutztown 4-H Club, and Danielle Yoder, Tilden 4-H Club, will present their winning demonstrations at statewide competition at the annual Pennsylvania 4-H Achievement Day at the Pennsylvania State University, State College, in August.

The public speaking contest was highlighted by two 4-Hers; Wendy Shaw, Eastern Berks Dairy 4-H Club, and Steve Ines, Antietam Hoofbeats 4-H Club, who gave winning speeches dealing with American agriculture. The two 4-Hers will also compete at Penn State University in August.

The photography contest was won by Larry Stratton, Kutztown 4-H Club Jeff Bucks, also of the Kutztown 4-H Club captured first place in the poster contest. Both winners will enter their projects in statewide competition. The event was planned and run by the Berks County Cooperative Extension Service in conjunction with a 4-H planning committee.

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