

Deboning Machine Develops Poultry Meat

Mechanical deboning machines are enabling poultry processors to develop a new form of meat from necks and backs of chickens and turkeys, according to food scientists at The Pennsylvania State University. The meat is used in products such as frankfurters, various luncheon meats, spreads, fermented sausages, and similar products.

Before the advent of deboning machines, this source of protein was not used for human consumption since removing the meat by hand was too costly. However, demand for this meat has increased with the rise in meat prices, enabling processors to incorporate such protein into many meat products, says Dr. Joseph H. MacNeil, professor of food science at Penn State.

Such deboned chicken meat ranks high as a source of quality food, stated Dr. MacNeil and Dr. Morris G. Mast, assistant professor of poultry science extension at Penn State. They reported such meat is in the same category as milk, eggs, and beef in supplying essential body building proteins.

Deboned meat from turkeys is also useful but the flavor of turkey meat is not as stable as chicken. In other words, turkey does not hold its flavor as long as chicken.

In recent tests at Penn State, a trained taste panel preferred a 50-50 mixture of mechanically deboned poultry meat and ground beef over either 100 percent mechanically deboned poultry meat or 100 per cent ground beef. In these studies, rancidity was lowest

for the mechanically deboned poultry meat increased as the amount of ground beef was increased.

Comparing 50-50 mixtures of deboned poultry and ground beef with 100 per cent ground beef in flavor retention studies, taste panelists found no flavor difference between the two products until after six days of refrigerator storage. Then the deboned poultry meat and beef mixture showed better flavor and less rancidity than the ground beef.

The composition of mechanically deboned poultry meat can vary greatly, depending on the source of the raw material such as broiler backs, necks, skinned necks, or breast cages. Protein content can range from 9 to 12 per cent while fat might be anywhere from 16 to 22 per cent. Final use of the product will determine the desired ratio of protein and fat, the Penn State food scientists pointed out.

Mechanically deboned poultry meat, they claimed, is being used by an increasing number of packers of variety meats. Most of the cooked deboned meat is used in U.S. food products while a large portion of the raw meat is exported.

"In some products, this poultry meat can be used as a complete substitute for ground beef. I'm sure we have not even scratched the surface in uncovering uses for this new source of protein - especially with some other meat sources in short supply," Dr. MacNeil affirmed.

Pasteurization studies of deboned chicken have shown significant reductions in bacteria, improving storage time through various heat treatments. However, pasteurization can stop the normal forming of necessary emulsions in sausages and similar products. Additional research is needed with pasteurization, MacNeil and Mast indicated.

Nestleroth Wins In US Duroc Competition

Mark Nestleroth, Dutch Valley Farms, Manheim RD5, showed the only Pennsylvania hog and returned with a ribbon from the National Duroc Congress held last week in Logan-sport, Ind.

Nestleroth's 241-pound boar placed 13th out of 65 boars in the late January class at the meet. The boar was sold for \$675.

"I was quite pleased," admitted Nestleroth. "It was a lot better than I expected, competing with all the Midwest entries."

The record price went to an Indiana breeder who sold his boar to another Indiana breeder for \$13,600. The boar placed second in a test class.

Nestleroth reported that the winners of each class at the sale were purchased by Japanese breeders.

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