

Development of Processed Meat Items for the Fast-Food Industry

Dale L. Huffman*, Leader
J.A. Marchello, Cooperator
T.P. Ringkob, Recorder

There are two basic pathways for meat to move through the marketing system to the ultimate consumer. The first of these is through the retail route for consumption in the home, while the second is through the foodservice segment for consumption in an institutional setting or a restaurant. The foodservice industry can be sub-divided into several segments: (1) institutions (hospital, schools, military) (2) restaurants, and (3) the "fast-food" industry. The purpose of this presentation is to discuss development of processed meat items for the fast-food industry.

Fast-food restaurants are defined as establishments where the food is ready for consumption with minimal preparation in a relatively short period of time. In the fast-food restaurant, the customer waits on himself from a counter, selects his own table (or carries the food out of the establishment), and usually cleans up his own table after eating.

Fast-food establishments have been prevalent in the United States for many years, but have experienced significant growth in recent years. Perhaps the first fast-food restaurant in this country was Krystal, which opened its first store in Chattanooga, Tennessee more than 50 years ago and is today the largest privately held fast-food chain in the United States. The names McDonalds, Burger King, Wendy's, Hardee's and others are well known throughout the United States as well as in many other countries of the world. These are franchised, chain-operated ready-to-eat establishments.

These restaurants have one thing in common – they serve a meat product as their principal menu item. Regardless of the type of restaurant, portion-controlled fresh meat, poultry or fish will be dominant. Of the total food served in the foodservice industry, meat, poultry and fish constitutes more than 50% of the product mix. Limited data are available on the volume of meat moving through current franchised establishments, but there is no doubt that it is very significant. Since more than half of all meals are eaten outside of the

home and meat, poultry and fish constitutes more than half of this amount, it is obvious that there is tremendous potential for the sale of meat in this industry. The life blood of the industry is innovation. The research and development divisions of these companies and their suppliers are constantly introducing new and novel items.

Fast-food restaurants are very popular in the United States. In a recent survey, 93% of the respondents indicated that they had eaten in a fast-food restaurant within the past six months. When asked about particular restaurants visited, McDonald's and Kentucky Fried Chicken tied as the most popular fast-food establishments.

More than 73 billion meals and snacks are consumed each year in the foodservice industry. These fast-food restaurants built their basic foundation around ground beef or hamburgers. The menus are far more varied today, but the ground beef patty on a bun is the backbone of their business.

A survey conducted in 1978 indicated that when people went to a fast-food restaurant they ordered hamburgers 87% of the time. The remaining 13% was divided among chicken (43%); pizza (30%); and fish (27%). The foregoing is based on a survey completed nearly ten years ago. A similar survey today would reflect an increase in the percentage of chicken, fish and ethnic foods, with a decrease in the percentage of ground beef.

One could logically question whether meat is responsible for the success of fast-food establishments or if the fast-food establishments are responsible for the increased consumption of meat. There is little question that the hamburger has been the primary reason for the success of the fast-food industry. Over the past several years, ground beef production and consumption has increased dramatically. This increase is due considerably to McDonalds' "Big Mac," Burger King's "Whopper" and any other number of fanciful names given to the hamburger by fast-food restaurants. Many times, consumers eat a hamburger without realizing that they are eating beef, just as many consumers are not aware that bacon and ham are pork.

Chicken has also made a significant impact on the fast-food industry. With the introduction of restructured and whole-muscle formed items, such as chicken nuggets and breast portions, chicken consumption is rising rapidly.

Fast-food restaurants have experienced great success with specialty meat entrees, both whole muscle and restructured. However, with their increased success, an increase in demand for meat by these establishments has

*D.L. Huffman, Department of Animal and Dairy Sciences, Alabama Agricultural Experiment Station, Auburn University, AL 36849

J.A. Marchello, U. of Arizona, Tucson, AZ 85721

T.P. Ringkob, U. of Nevada, Reno, NV 89557

Reciprocal Meat Conference Proceedings, Volume 39, 1986.

been recognized. Between the years 1960 and 1980, per capita consumption of beef had risen only about 38%; per capita consumption of chicken had risen 71%, while fish consumption rose 25%. The period from 1980 to 1986 has been a time of even more rapid movement of consumption away from the red meats and toward the white meats. The reason for this trend is that the consumer perceives that the red meats are "heavy and fatter" while the white meats are "leaner and lighter" and therefore more healthful. Changes in consumer attitudes have been documented in several studies and are reflected by changes in meat consumption among the species.

The fast-food industry uses a significant amount of pork. There has been a tremendous increase in the amount of fresh pork sausage consumed in the fast-food industry in recent years. In addition, bacon and ham have a prominent position in menu planning. Fresh pork has increased modestly with the introduction of restructured pork ribs and several other convenient fresh pork items. Pork, in some form, is the traditional breakfast meat in the United States and the fast-food industry is pushing hard for breakfast trade to improve return on their fixed investment. Today, five plants process more than 18 million kilograms of fresh pork sausage and sectioned-and-formed ham (Canadian bacon) for McDonalds alone. Many other fast-food companies also offer sausage or ham as breakfast entrees to compete for breakfast business.

It is readily apparent that the fast-food industry and the meat industry are closely aligned. There will be some shifts among the items offered and some inroads will be made by vegetables and salads, but meat will continue to play a major role in the fast-food industry.

A recent study reported that foodservice firms, especially fast-food operations, will be faced with the loss of almost 7 million customers in the 15 to 29-year age group by 1991, (5 years). Countering the loss in this prime age group for fast-food feeders will be an increase of almost 26 million adults aged 30 to 49 years. This adult group is more affluent and therefore would have more sophisticated tastes. This shift should favor the full-menu, full-service restaurants at the expense of the traditional fast-food operators. The current trend toward "up-scale" fast-food restaurants is likely a reflection of this shift.

The fast-food industry is a highly competitive industry. The restaurant business is a \$140 billion-a-year industry, with fast food representing over one-third of that total. Despite the fact that the fast-food industry is highly competitive, it has enjoyed a seller's market, driven by consumer needs. The buyer's market dictates that the fast-food industry provide a steady stream of "new and improved" menu items.

Who are the innovators within each company in the fast-food industry? Basically, the marketing division of each company is expected to generate new and improved products continually. Some of the products developed by the research and development division are accepted by management, but many are discarded. The research and development groups within each company rely on inputs from every source available, but they must be extremely secretive in order to gain a competitive advantage. Some of the external sources that

are used include: (1) suppliers of meat products, (2) spice, seasoning and ingredient companies, (3) equipment manufacturers, and (4) trade journals, meetings and seminars. It would be highly unlikely that a fast-food processor would ask a university meat scientist to collaborate on a research project to develop a new or novel item. Many fast-food research and development professionals stay in constant touch with former professors and colleagues who might provide useful inputs without compromising the confidentiality of their respective companies.

The fast-food industry is an extremely interesting area of the meat industry. Those of us in academic work should keep in touch with our students who are on the cutting edge of new product development. There is tremendous opportunity for mutually rewarding experiences.

Summary

The following list includes some of the strategies used by the fast-food industry to develop new products.

1. The product must have excellent sensory, physical and chemical properties.
2. The preparation time has to be short, in the order of 5 to 7 minutes, and preferably less.
3. One must look at the total package, which includes the container, the bun, the accompaniments, condiments, etc. The meat item is only one part of the total presentation.
4. The most important consideration is that the new product must give the corporation an increase in net sales and profitability. There is no justification for introducing a new product which merely rearranges the product mix within the corporation.
5. The fast-food industry spends tremendous sums of money on advertising. It has been reported that Burger King spent \$40 million on the "Herb" commercial.
6. The new product must be "clonable," or some may prefer the term "machinable." A supplier must be able to make a new product for a fast-food chain in tremendous volume; however, the new entry must possess good uniformity. There are exceptions, such as Burger King's Chicken Tender Strips, which is a hand-processed item.
7. A customer must be able to handle the product neatly. The portion should be in the 2½ to 3 oz. range. A 4 oz. portion (cooked weight) is usually too large and messy to eat.
8. The new product must have staying power or market durability.
9. A new product must give the consumer a positive perception of higher quality, greater convenience and improved nutrition.
10. Cost may not be the most important factor in new product introductions.

I would like to propose these two questions for discussion after viewing some slides of fast food items and a presentation by Roger Mandigo. What role should meat scientists play in the fast-food industry? What interaction should the National Live Stock and Meat Board and commodity groups (beef, pork, and lamb) have with the fast-food industry and the academic institutions?