# BEEF CATTLE TYPE AND COMPOSITIONAL EFFECTS ON FRESH MEAT PROCESSING

by

Norval Dvorak*

One fact is axiomatic in the beef and meat industry. It is in a constant state of change. Change is generated by both interior and exterior forces and influences. General economic conditions, levels of disposable income, food fadism, health scares, alternate meat supplies, available supplies, feed price levels, weather generated shortages, consumer eating habits, all serve to influence the demand/supply/price relationships with a resultant impact upon the slaughtering processing merchandising structure of the industry.

I would like to address myself to the change taking place in the fresh meat processing industry and its effect on the type of cattle the trade is demanding. A demand verified by this thing called, "price which someone is willing to pay."

*Much of Meat Supply Consumed as Processed Meat*

It is now well known that 40-45% of our beef supply is consumed as processed meat which is primarily utilized by our fast food chains, HRI trade and sausage manufacturer. Of this percentage about 10% is utilized as trimmings in the manufacture of sausage. Fast food chains now take the equivalency of 25,000 head cattle or 25% of the cattle slaughtered each day.

*Much of Meat Consumed Away from Home*

It is also quite established that 35-45% of all meals are consumed away from home and, that, foregoing even more serious energy shortages, this percentage may move to 50% by 1985. I might add that this 50% of the market is represented by a relatively inelastic demand.

This hamburger/sausage trade has normally reflected back to the slaughterer/boner in the form of a market for 75-85-90% lean trimmings from cow beef or non-fed source. This has been coupled with a demand for 50% lean trimmings from fed cattle sources. A strong parallel exists between the growth of the fast food business and the liquidation phase of our cow herds between 1974 and 1979 with its resultant drop of lean beef prices that made those formulations very attractive.

*Rules of Thumb for Expectations of Yields of Lean*

As a cow slaughterer and boner and choice cattle fabricator we normally used these rules of thumb for expectations of yields of lean. These varied seasonally depending upon farmer or feeder levels of concentrate feeding.

a. Canners & Cutters, primals removed could expect to yield 90% lean trimmings.

b. Boning utilities, primals removed could be expected to yield 85% lean trimmings.

c. Breaking utilities, 75% lean.

d. Standard grade cattle, 85% lean.

e. Good grade cattle, 80% lean.

f. Native choice fronts minus the rib eye roll, 70-75% lean.

g. Holstein choice fronts minus the rib eye roll, 80-85% lean.

h. And the exotic breeds or crossbreeds somewhere in between.

*Cow Slaughter Lower*

Currently cow slaughter is running about 37% below one year ago, non-fed slaughter 77% below with fed cattle slaughter now at 8-10% below 1978 levels. What has happened in the meantime?

1. Hamburger and processed beef consumption has not perceptably changed as a % of the total mix. As a result:

2. Cow prices have risen to carcass price levels equating and, at times, exceeding the price of fed cattle.

3. Price margins between Holstein fed cattle and non-feds narrowed perceptably against native

*N. DVORAK

*Executive Vice President, Packerland Packing Co., Inc., P. O. Box 1184, Green Bay, WI 54305*

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choice fed cattle. This further served to reflect the demand for the lean beef product.

4. Imports of lean meat from foreign countries jumped markedly to fill this void in manufacturing beef supplies.

However, if we take another look at this tonnage and percentages it is quite apparent that much of today's manufacturing meat is coming from the boneless chucks of our fed cattle. Illustratively, we have standing orders from HRI chains for the boneless fronts of our Holstein choice and no/roll cattle that at an 80-85% lean go into the production of a very high quality hamburger.

*How Does The Producer Respond To Constant Change?*

How do we relate this information back to the cow/calf rancher, to the feedlot operator, who ultimately makes the decisions which effect the meat quality that the consumer will have at mealtime?

The price signals are quite clear. How best does the producer respond? What are the questions to be answered?

1. Do we need to feed cattle strictly for hamburger? No! In this area I agree with Dr. Del Allen of Kansas State University. It is too expensive. Short feeding cattle for 90 days to minimize fat gives us an in-plant boneless cost of $1.58 per pound in today's market.

   America's favorite retail and HRI beef has become marbled choice grade beef. Economics dictate that we feed the cattle to that grade and utilize the boneless fronts minus the rib eye roll to obtain greater producer returns yet keep overall costs on the manufactured meats at a lower level to the consumer. In today's market choice arm chucks are selling at 89½¢ per pound and convert to ground beef at $1.15-$1.20 per pound as compared to the above $1.58 per pound boneless from short fed cattle.

2. Do we need to breed a breed of cattle that will more closely reflect changing market demands?

   No. I do not think so. I believe the new USDA feeder grades are steering us in the right direction or reflecting what is happening in the field and that breeders and ranchers will respond to them through the process of selectivity. We need to carry before us the image of medium to large framed, thickly muscled cattle with a thin-fat covering. These cattle will give us a higher proportion of lean meat, will give us meat quality and grade under normal roughage/grain feeding practices. They can be fed to heavier weights and still give us economy of gain. Obviously a real educational opportunity for our institutions is in this area. These traits can be found in any breed. Some may be more concentrated in a breed than others but no one has a corner on them. The industry should not move to extremes of genetic selection that would serve to destroy the well developed market both domestic and overseas for the USDA choice y.g. 1-3 with its current standards of marketing and fat cover.

   Certain breeds fit specific niches in the supply/demand structure. In Wisconsin we find the Holstein is such an animal. Currently 80% of the male calves dropped in the breed are being raised for beef or fancy veal production. Almost 20% of those saved are going for baby veal. From 1975-1978 almost the reverse condition existed. Thus it is quite obvious that this calf, a by-product of the dairy industry, stands as a versatile meat supply buffer. Fortunately, in the genetic selection for milk production the same characteristics of roughage utilization, feed convertibility, scale and muscling, have also fit well into their utilization as primal cuts or for processing meats.

3. Do we need to make added major changes in feeding practice and increase the percentage of our beef supply from added roughage feeding and limited grain feeding? Unless we want to add markedly to the prices consumers pay for beef, the answer is "no"! Least cost rations today dictate the feeding of cattle with grains as a major source of energy. I have just finished feeding some cattle on sweet corn silage. The feed was inexpensive, the energy content was low and although I have supplemented grain, daily gain averaged at 1.4# per day. This almost doubled my feeding period. The old cliche of what's time to a hog might be applicable here, but my cost sheets quickly revealed that housing costs, labor costs and 12% interest rates, the fixed costs, added up much more quickly than feed costs. Our competitive system of resource allocation does an unparalleled job of allocating resources, and, any feeder learns that very quickly or becomes a statistic. By no standard of measurement in relationship to purchasing power is beef expen-

sive. We have on the whole a very acceptable product. The housewife has voted that way as evidenced in its removal from the retail meat case or the fast food counter. Although I am basically a hog producer, I cannot deny that it has been beef and not pork that doubled in consumption from the 1940's to the present.

*Cattle Breeders Must Keep Eye on Lean As Well as Choice*

Generations of kids growing up preferring hamburger, new sophistication in sausage manufacture, the concept of structuring of meats and steak, meat tenderization techniques, electrical stimulation of carcasses to improve tenderization, the think-slim-diet concepts, all of these will place an increased demand on lean beef with a decreased emphasis on fat.

Cattle breeders shall continue to keep one eye on that expanding market for lean, but, they will not overlook that 50% of the beef produced for retail and the white table cloth trade is of the preferred choice grade. Nor will they forget that it was the grain finished beef with the added fat that caused the great increase in taste for beef. In the 1975 to 1979 years of liquidation in the cattle cycle our lean beef came primarily from cows and non-feds. Cow slaughter ran at 11.6 million head, 50% lean trimmings traded at 55¢/lb., and 90% lean trimmings at 62¢/lb. On April 1, 1976, 50's at 35¢, 90's lean at 84¢; and in 1979 with a cow kill of 7 million head, 50's are at 72¢ and 90's at $1.52/lb. The market signals are quite clear.

It now appears on the basis of the cow and heifer retention that we are again in the herd rebuilding stage. The process is starting all over again. History will repeat itself. By 1984, lean beef will again be plentiful, which means no cause for panic, nor need for overcorrections. Producers will respond to price and change the genetic and feeding practices of their cattle to meet the changing needs as they always have.