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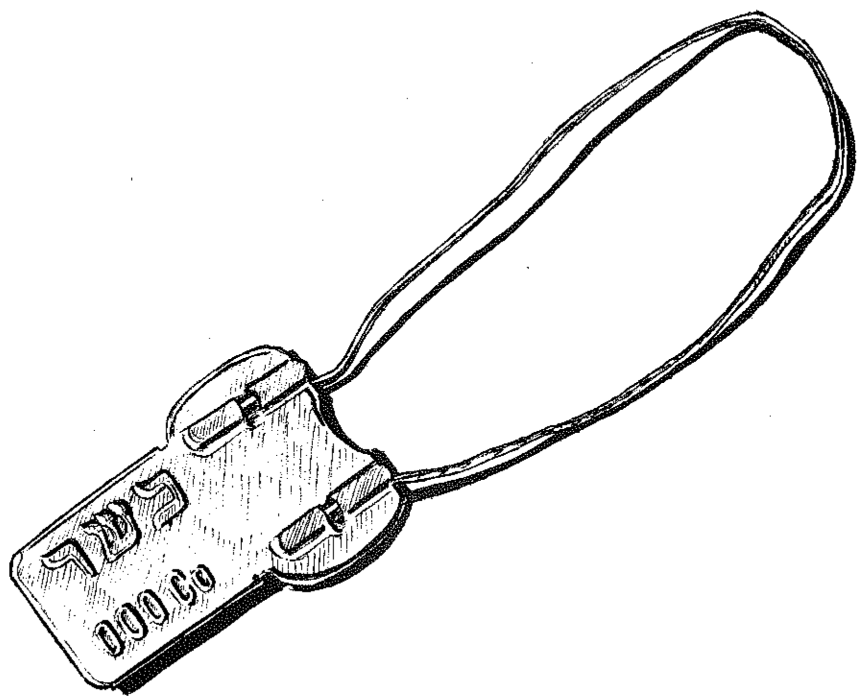
# Marketing Fat Cattle for Kosher Slaughter in the Northeast

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## Introduction

For more than a century the importance of the Northeast as a packer of quality beef has been declining. Packers recognized very early that, with the advent of refrigerated transport, it was less expensive to ship meat to market than to ship either feed or live cattle. Any firm which continues to pack quality beef in the Northeast despite the strong cost forces pulling the industry westward must have a particular cost or price advantage. This bulletin provides an analysis of one such segment of the beef-packing industry: supplying kosher beef.

Because of certain requirements of the kosher food laws and the promimity of the region to the nation's major Jewish population center in New York City, the Northeast has a strong advantage as a location for kosher slaughter facilities. Correspondingly, production of cattle for kosher slaughter may provide a special opportunity for regional feeders, an opportunity which to date has not been exploited to a great extent. The purpose of this study is to analyze the potential of the kosher beef market as an outlet for locally produced slaughter cattle. As an assistance to understanding the market a brief description of the kosher laws as they apply to meat is provided.

Because of the specialized nature of the product and its limited volume compared with nonkosher meats, the amount of published data on kosher beef is quite limited. Hence this study draws heavily on interviews with knowledgeable individuals involved in this industry, on the rabbinical organizations responsible for supervising kosher slaughter and processing, and on the information supplied by officials of plants involved in processing and distributing kosher meat.

## Kosher Beef

Kosher foods are consumed predominately by orthodox and some conservative followers of the Jewish faith. Consumption is abetted by less observant Jews who eat kosher foods only on special occasions and major holidays as well as by some non-Jews who eat kosher products largely because of their quality reputation.

The kosher dietary laws, kashruth, developed as part of a larger religious and historical context in Judaism. These dietary laws, as set down in the Torah (The Five Books of Moses, the first five books of the Bible) and as interpreted by the rabbi, determine what is permitted to be eaten by observant members of the Jewish faith. Our purpose here is to describe in lay terms only the most basic components of the kosher laws as they relate to meat. (For more detail see Regenstein and Regenstein, 1979.)

The kosher laws indicate what may be eaten and how it must be prepared. Among the red meat animals, cattle (and sheep) are permitted as a species which "... parteth the hoof, and is wholly cloven footed, and cheweth the cud ..." (Leviticus XI: 1-8). Among the "unclean" mammals are swine which, although clovenfooted, are not ruminants. The proper ritual preparation of mammals requires the removal of the blood which is seen as being the life of the animal (Genesis IX: 3-4):

"Only flesh with the life thereof, which is the blood thereof, shall ye not eat."

Hence much of the process is involved with the removal of blood from the tissue. This is accomplished first by a thorough bleeding of the animal followed by a removal of the larger blood vessels from the carcass and finally by salting ("koshering") or broiling the meat. Only the more mechanical aspects of these operations are detailed here.

Kosher tradition requires that the animal be killed by a trained, educated and licensed slaughterer, or "shochet." All kosher activities are carried out under the supervision of a rabbi. The taking of a life, even that of an animal, is not done casually.

The actual slaughter of a large animal must be done on an unstunned animal in a way that the gullet and windpipe are severed in a single stroke. The cutting of the major arteries in the neck prior to death facilitates a complete removal of blood from the body. Any hesistency or knicking of the blade during the process makes the carcass unfit for kosher ("trayf").

Kosher meat inspectors search the entrails according to the instructions set out in the Talmud, the written codification of the Jewish oral law. A critical test is the smoothness of the lungs. Perferated lungs - those which will not hold air when inflated - necessitate the rejection of the carcass for kosher use. Lung lesions which may be removed are acceptable for regular kosher. The more strict standard accepted for "glatt" (i.e., smooth) kosher requires that the lungs be unblemished. Overall the rejection rate for glatt kosher is about 50 percent, and approximately 25 percent for regular kosher. In a hierarchial arrangement glatt kosher rejects may fulfill regular kosher requirements while kosher rejects which satisfy the USDA inspection requirements may be used in nonkosher markets.

The drawing of blood from the carcass is not complete until the surface blood vessels are removed. As the vessels are more numerous on the hind quarter compared with the forequarter and as custom mandates that the sciatic nerve must also be removed, it is typically uneconomical in the US to use anything but the forequarters for kosher purposes.

Once the carcass has been fully treated, attention is turned to the tissue. Several procedures are recognized depending on how long following slaughter the meat is to be consumed or frozen. Practice requires that fresh meat must be washed and reblessed every 72 hours following slaughter. This practice maintains a high moisture level and prevents the blood from drying out. Regular kosher meat may be ritually washed up to three times. Glatt kosher meat, however, must be consumed, frozen, or koshered within the initial 72-hour period. It is for this reason that glatt kosher slaughter frequently (but not necessarily) takes place near major consuming areas.

Tradition allows the consumption of fresh beef provided it is broiled under proper conditions. In practice, most beef is koshered before cooking. Koshering entails soaking for half an hour, salting and draining for one hour, and a final rinse.

Retail cuts available from the forequarter are widely considered to be less desirable than hindquarter cuts. Perhaps in reaction to this situation, the quality grade of kosher beef is on average higher than that for nonkosher beef. That is, prime and high choice, according to industry observers, predominates among retail kosher meat cuts in contrast to the low choice, high good grade meat seen in most supermarkets. The relatively thick surface fat of higher quality grade beef necessitates substantial trimming for consumer acceptance.

Aspects of the kosher laws are described in elaborate detail in the Talmud. The details of the slaughtering process are, however, not included and practices are passed along by word of mouth. This situation, among others, allows for significant differences of opinion about the preferred procedures. A principal effect is that supervising rabbis' interpretations differ. Rabbis' reputations, and the reputation of the rabinical organizations they may represent (the "Circle-U", the Union of Orthodox Jewish Congregations of America, is the largest), are known in Orthodox Jewish circles and the acceptability of the meat slaughtered and koshered under their supervision is related to this reputation. Typically acceptance is hierarchial with most kosher consumers accepting products supervisied by the strictest rabbis, with some orthodox groups not accepting meat supervised by rabbies who are deemed less strict. In a parallel fashion, glatt kosher is acceptable to the largest group while regular kosher is somewhat less widely accepted, particularly by some orthodox groups. Glatt kosher products are more expensive than regular kosher.

The name of the supervising rabbi or rabbinical organization is marked on the carcass in several ways and the identification is typically carried forward to the retail level. The exact form of retail labeling is also subject to state laws. New York along with a special body of law covering the identification of kosher products has an enforcement office which supervises the identification and labeling of kosher products.

## Demand for Kosher Beef

Data on kosher slaughter in the United States are very limited, making a precise accounting of the volume of meat in this trade impossible. Figures are nevertheless available which indicate the size of the kosher beef market. Getschow (1976, p. 1) estimates that about 8 percent of cattle slaughter is kosher, or 2.7 million head in 1980 (Livestock and Meat Statistics). In 1972 almost 7 percent of total federally supervised cattle slaughter was done ritually (Fed. Meat & Poultry Insp. Summary). A 1973 survey of packing plants in Pennsylvania found that 10 percent of the total cattle kill was done under kosher supervision (Daly 1973, p. 22). Thus kosher cattle slaughter in the US is likely between 5 and 10 percent of the total Federally inspected slaughter, and in all probability is closer to the lower end of the range.

Thirty nine plants were slaughtering cattle ritually in 1979, according to records of the USDA Meat and Poultry Inspection Service (unpublished). Of these, the largest is the Spencer Foods division of Land O'Lakes which operated at a daily rate of 1,500 head in 1976 (Getschow 1976, p. 20). Other larger plants are operated by Iowa Beef Processors

east has witnessed over the past several years the closings of two kosher beef plants, Cross Brothers Meat Packers (Philadelphia) and Rochester Independent Packer (Rochester). Both plants according to industry observers suffered from the combined impacts of low labor productivity and high union wages. The Cross Brothers plant has been dismantled but the Rochester operation is intact and could conceivably reopen. The only remaining regional kosher plant of any size is Linden Packing Company, Inc. of Elizabeth, New Jersey. This plant with an annual kill of approximately 50,000 head specializes in higher grades of glatt kosher beef.

The market for kosher beef is largely limited to the estimated two million Jews who regularly maintain a kosher kitchen. They constitute nearly one-third of the 5.9 million estimated Jewish population in 1979 (Am. Jewish Yearbook 1980, pp. 161-63). New York State accounts for over one-third of the nation's Jewish population, while the Northeast accounts for close to 60 percent of the total US Jewish population.

If on average the New York Jewish population consumes one-half pound of unprocessed kosher beef per week then the State's requirements would be one million pounds a week. Most would be consumed in the greater New York City area. An additional but undetermined volume of kosher processing beef (e.g., boned beef) is used by the industry located in the New York metropolitan area, but much of this product is eventually shipped outside the state and region. About 15-20 percent of the New York metropolitian area consumption of nonprocessing beef is supplied from the Linden Packing Plant with the remainder trucked in from the Midwest.

The lack of precision about current volumes of kosher meat requirements makes projection doubly difficult. Here we rely on the opinions of industry experts including rabbis and plant managers involved in the kosher meat sector when formulating a medium term (5 to 10 year) outlook.

Among industry observers there is a difference of opinion concerning the future demand for kosher beef. One group sees unprocessed kosher beef consumption in a slow decline, largely as a result of three factors. The reduction in immigration following World War II combined with the historically low birth rate of the Jewish population has meant a slower growth rate for this group than for the nation as a whole. Hence the possible growth rate on a per capita basis lags below that of the overall US population (American Jewish Yearbook). Moreover, the decline in immigration has meant that the population is composed of a greater proportion of native-born Jews. This group is often seen as being less traditional and thus less likely to eat kosher foods regularly than immigrants from long-standing Jewish communities. The greater dispersion of the Jewish population through the US contributes, in the opinion of some, to further declines in traditional practices such as setting a kosher table, even through freezing and transportation improvements permit this group to be served better today than previously.

Another group sees a strong countertrend. In their opinion the recent rise in religious fundamentalism throughout the country is also reflected in the Jewish community. According to this scenario more Jewish families are observing the kosher food laws. One reason for this in the New York area is the rise in enrollment in Jewish day schools where kosher laws are observed and subsequently introduced into the home. Empirical verification for this outlook is difficult to develop. A 1978 survey found 76.5 percent of the Jewish population nationally maintained a kosher kitchen while 44.6 percent observed kosher outside the home (Milliken Associates). But there are no other figures available for measuring a trend.

The two apparently divergent opinions can nevertheless be rationalized. The total demand for non-processing kosher beef appears to be declining slowly, or at best remaining constant. The growth, if any, is in glatt kosher. As glatt kosher accounts for only about 10 percent of kosher beef slaughter, it is possible for the two trends to exist simultaneously.

A third trend is evident in the processed kosher beef market. Increased consumption of these products, particularly hot dogs, is attributed in part to the non-Jewish market which is attracted to the quality reputation of kosher foods (Quick Frozen Foods).

The relative strength of the fresh glatt kosher market provides an opportunity for the Northeast. The region has two distinct advantages in the preparation of this product. First, its nearness to the major market allows easy shipment during the 72-hour limit for this product. Second, the supervising rabbis often have congregations in the New York metropolitan area and are unwilling to resettle near the Midwestern packing plants. Thus, despite the recent closing of two major regional kosher packing plants, the continued operation of at least one major glatt kosher slaughter plant in the Northeast seems highly likely for the next 5 to 10 years. A Midwestern plant combining kosher slaughter with koshering would remove the locational advantage and offer keen competition to the Northeastern kosher packing industry. At this time there are no known plans for the construction of such an integrated facility but one is a possibility in the medium to longer term. Success of such a plant may be dependent on some change in locational preferences among rabbis.

## Supplying Fed Cattle for the Kosher Market

There are no fundamental differences among fed cattle used for kosher and nonkosher purposes. Nevertheless the kosher market has some particular characteristics related to the tastes of consumers and the requirements of the major existing plant, Linden Packing. Producers must expect to fulfill all of these requirements if they are to sell in this specialized market.

### Carcass and Breed Requirements

Traditionally, kosher carcasses are prime or choice, yield grade 3s. In the past higher yield grades have been accepted. Recently, however, the abundance of lower quality grade animals has lead to some experimentation with these animals. Whether ornot less finished cattle will become generally accepted is not known at this time. The producer supplying this market should nevertheless plan to produce low choice cattle at a minimum.

Breed is not a significant factor. There is some preference for larger cattle with their associated higher yields from the forequarter. Preference for large framed cattle makes Holstein steers a viable breed, provided that carcass standards can be met.

### Other Requirements

A principal cost of koshering is the rejection of carcasses as trayf. As noted, the rejection rate averages 25 percent for regular kosher slaughter and 50 percent for glatt kosher. Rejection amounts to a one-cent per pound loss (carcass weight basis) for the plant. This is the cost of ritual compared to regular slaughter plus a loss in hide value due to the throat cut. Since rejections are due largely to lung lesions and bruising, regular suppliers must deliver cattle with a minimum of these problems. The damp conditions of the Northeast may make lung complications more of a problem than they are in other producing regions.

In addition to these general requirements, the Linden plant management has specific stipulations for buying local cattle. Presently very little fed beef is bought from New York and little direct from the producer. The Lancaster, PA area markets are important local supply points, with the bulk of the supplies coming from out of the region, most particularly the stockyards in Joliet, IL.

The producer planning to sell to Linden Packing must keep the buying and assembly costs for New York cattle as low as that for other regions. One significant cost is sending a buyer out to view the cattle. A less costly alternative is delayed pricing of the animals until they reach the plant or possibly after slaughter. (For more detail on these selling procedures see Rasmussin, Lesser and Anderson.)

Direct plant shipments must be made in full trailer loads (40-45 head) both as a means of reducing costs and satisfying the requirements of the plant. Furthermore, the load must be quite uniform in terms of the sizes and condition of the cattle. Both of these requirements will necessitate significant coordination among producers if more than one producer is needed to assemble a load.

Quantity

The Linden Packing plant with its approximate 50,000 head annual capacity is one of the major buyers of fed beef in the Northeast. Certainly it is large compared to the size of the sector in New York with its estimated production of 45,000-60,000 fat cattle annually (Lesser 1980, p. 1). Currently less than one percent of that packing company's requirements are obtained from New York. There are 120,000 head available at the Lancaster, PA stockyards but that number is adequate for only a small portion of the region's 600,000 annual steer and heifer slaughter (P&SA 1977). Thus the opportunity exists for New York and other Northeastern producers to sell to the Linden Packing plant as a substitute for animals brought in from outside the region.

## Conclusions

The kosher beef market is a highly specialized one based on ancient Jewish laws. Although in total this market for fresh meat is probably in a gradual decline in New York, the Northeast is well positioned to take advantage of a subsegment known as glatt kosher meat. This product must be koshered or, if used unkoshered, consumed within 72 hours of death. Given the generally unwillingness of supervising glatt kosher rabbis to locate near Midwestern slaughter facilities and the absence of major integrated slaughter and koshering facilities, glatt kosher slaughter must now be done near a major market like New York City. Presently this glatt kosher slaughter is done at the Linden Packing Co. of Elizabeth, NJ. The increasing popularity of glatt kosher meat makes the continued operation of a Northeastern glatt kosher slaughter plant highly likely for the short term. Beyond 5 to 10 years there is a possibility of competition from a Midwestern plant shipping koshered meat.

At present the Linden Packing plant is a viable outlet for New York fed beef. To meet the needs of this market a fed beef producer must satisfy three specialized requirements:

(1) Lung lesions and bruising must be minimized. This may require changes in housing and additional care during loading and shipment.

(2) Carcasses must grade at least low choice, and preferably high choice and prime. Larger carcasses are preferred making Holstein steers a viable possibility.

(3) Buying costs must be minimized, possibly by pricing at the plant or following slaughter on a grade and yield basis.

While the requirements of this market are not stringent they nevertheless provide a challenge to the smaller producer. The smaller producer will find the need to coordinate assembly and shipment among a number of producers a particular restriction for this market. Even without direct participation, the New York producer benefits from the existance of a regional kosher plant through purchases at the Lancaster area markets. Some producers may find indirect access to the Linden Packing Co. via Lancaster more feasible than direct sales even if the marketing costs are higher.

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