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BEEF MARKETING IN HAWAII--AN OVERVIEW[1]

by

Peter V. Garrod and C.T.K. Ching[2]

INTRODUCTION

The first objective of this project is to describe the beef marketing system in Hawaii. This requires tracing the major sources of beef supplies (local production, domestic imports, and foreign imports) through the marketing system. It also requires the identification of prevailing marketing agreements and contracts between producers, feeders, slaughter/rendering plants, wholesalers and retailers. The second objective is to identify and assess alternative market organizations for the Hawaii beef industry.

This report summarizes the results obtained in fulfilling these objectives. The first section of this report contains a description of the Hawaii beef marketing system. The second section contains a discussion of alternative market organizations. Both of these are in summary form. Detailed discussions of both topics (description and alternatives) are presented in two separate reports:

Schermerhorn, Richard W., Peter V. Garrod, and C.T.K. Ching, "A Description of the Market Organization of the Hawaii Beef Cattle Industry."

Peter V. Garrod, C.T.K. Ching, and Sumner J. La Croix, "Alternative Marketing Structures for the Hawaii Beef Cattle Industry."

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THE HAWAII BEEF MARKETING STRUCTURE

Historically the job of supplying beef to consumers has been accomplished by the combined efforts of several distinct segments within the beef industry. For the purpose of simplification, the various segments of the Hawaii beef industry may be considered as producing feeder cattle, feeding cattle, slaughtering and processing cattle, and wholesaling and retailing beef.

In addition to the above segments, there is an additional segment involved with importing beef products. In some cases, the slaughtering and processing segment provides these imports, but the majority of the imported beef is contracted by the wholesaling and retailing segment in the State.

Producing Segment

There are currently about 800 ranches in Hawaii with a total inventory on January 1, 1981, of 220,000 cattle and calves of which about 80,000 were cows. During 1980, these ranches sold 55,000 head of cattle and calves for a total value of $28,074,000. Approximately 50 percent of the cattle and calves sold during the year were marketed through feedlots--the remainder were either cows or bulls, dairy cattle, or beef heifers and steers finished on range. Although there is a relatively large number of ranches in Hawaii, the majority of the cattle in the State are carried on a few large ranches.

To obtain information on the marketing practices of ranches in Hawaii, questionnaires were sent to a sample of 80 ranches. Questionnaires were returned from 25 ranches. The cattle inventory of these ranches represented 55 percent of all the beef cows in the State.

Basically, three types of beef are slaughtered commercially in Hawaii: cows and bulls culled from herds throughout the State (22 percent); steers and heifers that are kept on the range after weaning and fed on pasture until they are slaughtered (25 percent); and steers and heifers that are taken off pasture, generally at weights between 600 and 700 pounds, and placed in feedlots for finishing up to an average of 950 to 1050 pounds (53 percent).

Feedlot Segment

Cattle feeding in Hawaii takes place in nine feedlots. There are three feedlots located on the island of Hawaii, four on Maui, and two on Oahu.

The cattle placed in feedlots remain in these lots for periods ranging from 85 to 160 days--the overall average feeding period for all cattle is about 130 days. The average daily weight gain for cattle in the feedlots ranges from 2.5 to 4.5 lb/day. After cattle are finished, either in feedlots or on range, they are sent to a slaughter plant. At this stage of the marketing channel approximately 60 percent of the cattle are still owned by the ranchers; i.e., about 60 percent of the cattle slaughtered are sent to the slaughter plant on consignment.

Rated feedlot capacity is the capacity of a lot at a point in time. Normally, the industry considers a turnover of between 2 and 2.5 times per year as an average operating situation. The rate of turnover will depend upon the utilization of lot capacity and the length of the feeding period. Thus, if Hawaii conforms to an average operating situation (there is no reason to believe otherwise), the annual number of cattle that could be fed in the State if existing feedlots were utilized to capacity would be between 40,000 and 50,000 head. In 1980, 26,800 cattle were fed in these feedlots. This means that existing feedlots in Hawaii operated on the average at between 54 and 67 percent of capacity. Or, stated another way, existing feedlots in Hawaii could have fed an additional 13,200 to 23,200 cattle during the year.

If the feedlot owned the cattle being fed, it could schedule the cattle in and out of the feedlot in quantities and at times which would facilitate full utilization of the feedlot facilities. With custom feeding, however, feedlot operators are constrained by ranchers who decide when cattle are to be placed on and taken off feed.

There is the added problem of pens being at less than capacity in order to segregate cattle from different ranches. Also, efficiently feeding cattle of different sizes in the same pen is a problem.

Slaughter/Processing Segment

The slaughter/processing segment of the Hawaii beef industry performs two basic functions: slaughter, which provides beef in carcass form, and processing, which breaks carcasses into wholesale or retail cuts and/or further processes beef into products such as sausage, hot dogs, etc. Since most major slaughter plants perform both functions, those plants which only process beef are included with the slaughter plants in the discussion of this segment of the industry.

At the present time, there are 16 slaughter plants located in the State--six are located on the island of Hawaii, four on Maui, two on Oahu and four on Kauai. The total slaughter capacity of these 16 plants if all plants operated 8 hours per day at rated daily capacity for 250 days per year is estimated to be 131,000 head annually, or 525 head per day. Six of the 16 plants are full-time operations. These have a total rated capacity of about 112,000 head per year, or about 450 head per day. In terms of utilization of rated capacity, these plants, on the average, operate at less than 50 percent.

Approximately 60 percent of the cattle slaughtered in the State are on consignment. Essentially no cattle are slaughtered on consignment on the island of Hawaii and only 40 percent are on consignment on Maui. However, over 90 percent of all cattle slaughtered on Oahu are on a consignment basis.

On a consignment basis, cattle are slaughtered and the carcass price determined (on the basis of the going market for that weight and grade) and the proceeds, minus slaughter charges, are remitted to the consignor. Slaughter plants in Honolulu base their price on market prices in Los Angeles plus the 10 to 12-cent per pound transportation cost from the Mainland. Under the consignment method of selling cattle, the rancher maintains title to the cattle until the time of grading--when the cattle are sold and ownership changes hands from the rancher to the buyer.

The form of product marketed by the slaughter plants and processors in the State is estimated to be about 34 percent carcass sales, 31 percent as primal cuts, 12 percent as fabricated cuts and the remainder as boneless beef, hamburger and other processed products such as sausage, hot dogs, etc.

The overall types of markets to which slaughter and processing plants sell their product can be broken down as follows: approximately 48 percent of the beef is sold to retail grocery stores; 23 percent to institutions, including hospitals, schools, jails and military commissaries; 15 percent to hotels and restaurants including fast food outlets; 7 percent to wholesalers; and the remainder is custom slaughtered for home use.

Large-volume retail grocery stores in Hawaii indicate that Hawaii slaughter plants and processors cannot supply the volume and the consistent quality of beef that they require. Consequently, they secure most of their needs from the Mainland. The retail grocery stores on the outer islands, however, do provide a market for Hawaii-produced beef.

Retailing/Wholesaling Segment

Beef consumption in Hawaii has always been less on a per capita basis than the U.S. average. However, it has been following the general trend evident for the entire U.S. Per capita consumption peaked in Hawaii in 1976 at 97.3 pounds.

By 1980, consumption had dropped to 89.6 pounds per person. This 7.7-pound drop in consumption amounts to an 8 percent drop over the four-year period in the State.

The average retail price of beef in the U.S. has increased from $1.48 per pound in 1976 to $2.38 in 1980, an increase of 90 cents per pound, or 60 percent. This has largely been the result of a sharp reduction in beef production over the period because of low producer profits. Further, while poultry, pork and fish have also increased in price, the increase has not been as pronounced as that of beef. Thus these items have been considered "a better buy" by consumers.

The most important factor affecting consumption of beef in Hawaii as expressed by the retailing/wholesaling segment (and other segments as well) of the beef industry is the trend toward consumer preference for leaner beef. Leaner beef is less costly to produce and thus costs less to the consumer. And, since it has less fat, it more closely satisfies the dietary concerns of consumers. If this trend continued and especially if it increased, it would bring about a number of changes in the production and marketing of beef in Hawaii (and elsewhere). At the present time most participants in the retailing/wholesaling segment are generally taking a "wait and see" attitude.

The retailing/wholesaling segment of the Hawaii beef industry has a large number of participants. There are over 200 hotels; over 1,400 restaurants; 160 grocery stores and markets; 40 grocery retail supermarkets; 50 firms involved in one way or another in wholesaling meat and/or meat products; and 25 meat retailers not classified as grocery stores. In addition to the above, the military purchases beef and beef products for troop issue and for its commissary stores. Finally, hospitals, private and public schools and universities, and the prison systems in the State are involved in buying and/or selling or providing beef products to consumers.

Approximately 53 percent of the market supply of beef in Hawaii is imported from the Mainland, 16 percent is imported from Australia and/or New Zealand, and 31 percent is supplied by beef produced in Hawaii. Figure 1 presents a diagram of the flow of beef from these three sources (Mainland, Australia/New Zealand and Hawaii) to retail outlets. The importance of Figure 1 is that it identifies the origin of the beef purchased by the various retail buyers of beef. The retail outlets that are currently purchasing beef from imported sources are the buyers that will have to be convinced to purchase locally produced beef if the market for beef produced in Hawii is to be expanded.

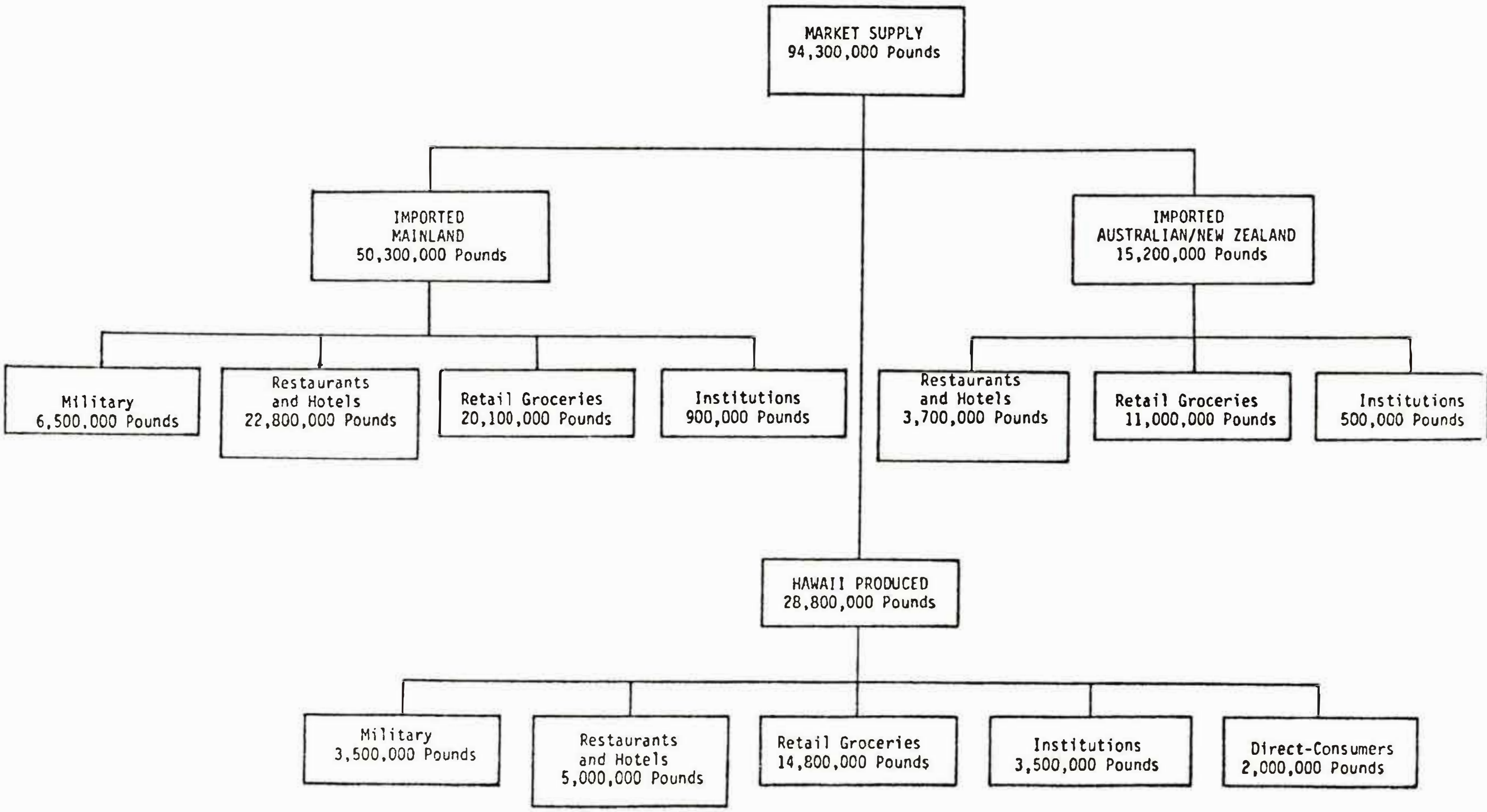

Figure 1. Market Flow of Hawaiian Produced and Imported Beef To Final Retail Outlets, Hawaii, 1980 (Pounds are carcass weight equivalents)

Figure 2 presents a more in-depth picture of the market flow of the beef provided to Hawaii consumers by the livestock industry of the State. This figure describes the market flow from the cow-calf ranch operation through the system to the final consumer.

ALTERNATIVE MARKETING STRUCTURES

This part of the study includes a survey of the structures of beef markets existing in different parts of the world. A wide variety of marketing structures was observed to exist in the beef industry. Often markedly different structures exist side by side. It was not uncommon to observe sales at auctions and terminal markets, direct sales to slaughterhouses, and sales to assemblymen all taking place in the same country and even in the same producing areas.

A Survey of Beef Marketing Structures

The full report on alternative marketing structures describes in detail beef marketing systems in Sweden, West Germany, New Zealand, and the U. S. Mainland. Based on this review we note that during the past 35 years there have been some definite trends in the cattle industry. The most noticeable has been the concerted movement towards direct sales and away from auctions and terminal markets. There also has been a general movement of slaughter facilities away from the consumption areas to the production areas. In some countries, particularly those of the Organization for Economic Cooperation and Development (OECD), the role of cooperatives in the marketing of beef has been increasing.

The increased use of direct sales reflects the economic advantages of direct sales over auctions and terminal markets:

1. The price can be negotiated before delivery;

2. Repeated transactions between the same parties may reduce the search costs incurred in finding an acceptable buyer or seller;

3. The price can be based on the prices determined in the auction markets (i.e., the direct sales market channel "rides free" on information generated in the auction).

Alternatives for Hawaii

Three market stuctures not currently existing in Hawaii were examined to determine if their implementation could, at least potentially, result in some improvement in the efficiency of the Hawaii beef marketing system.

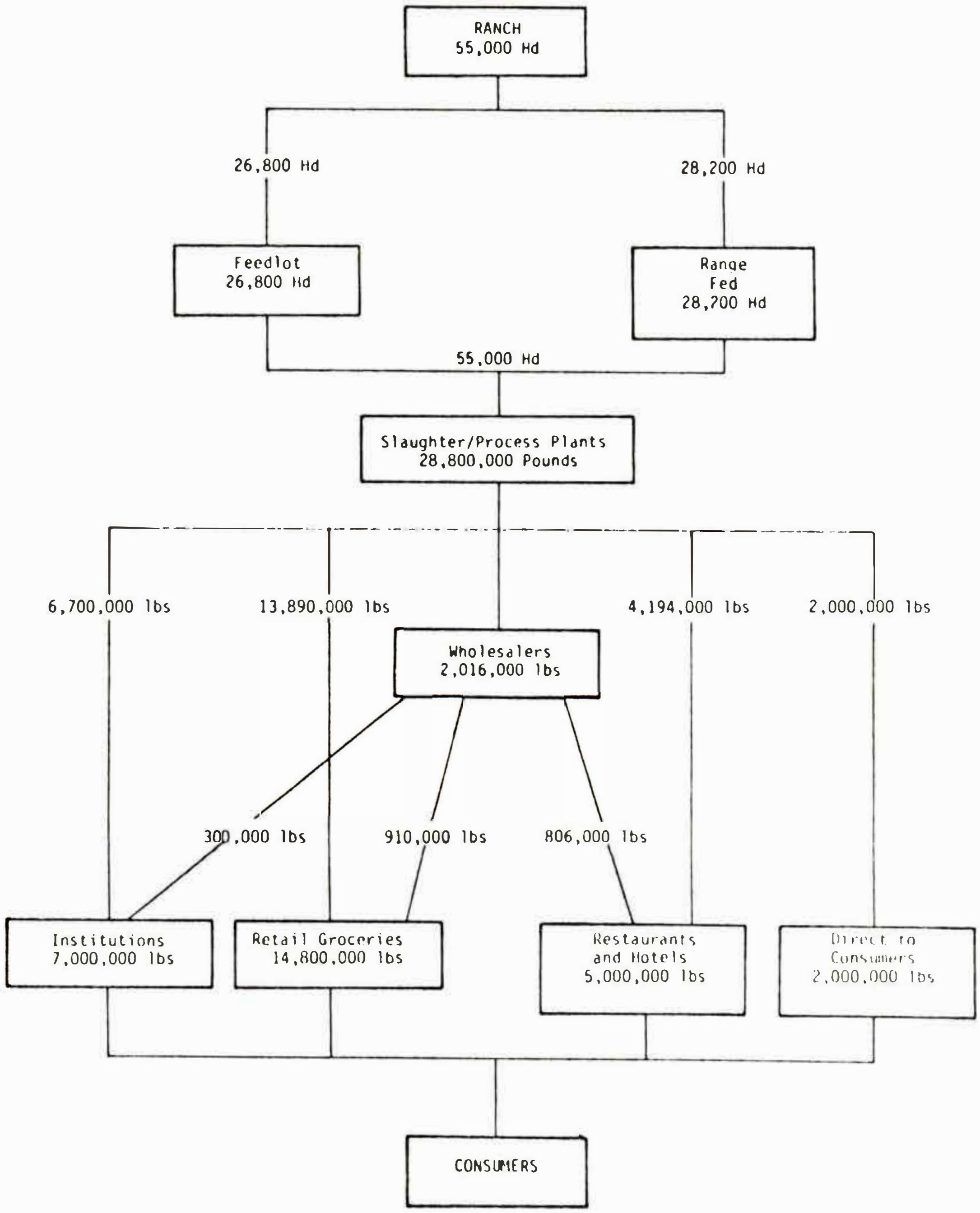

Figure 2 Market Flow of Slaughter Cattle From Ranch To Final Consumer, Hawaii, 1980 (Pounds are carcass weight equivalent).

The first alternative considered was the establishment of a cooperative to control the marketing of beef. Cooperatives of this type have been very successful in several agricultural industries on the Mainland. They typically operate in such a fashion as to ration market supplies in the manner most efficient from the producers' point of view. Such a cooperative is not feasible in Hawaii because the price of beef in Hawaii is determined by supply and demand conditions on the Mainland. The cooperative could not take actions which would affect price, and any action to limit supplies would result in increased imports.

The second alternative was the establishment of auctions or terminal markets in Hawaii. This did not appear to be a viable option given the structure of the beef industry in Hawaii. The principal role of an auction is price making, but the price of beef in Hawaii is already made (on the Mainland). Both auctions and terminal markets are expensive to operate and it is unlikely that the industry could support them. The island nature of the State may render any market structure that necessitates the movement of live cattle to market uneconomical; and it would definitely be too expensive to have separate auctions located on different islands. Finally, it is impossible to compel producers to use auctions or terminal markets. Thus we conclude that it is very unlikely that the establishment of either an auction or a terminal market would improve the efficiency of beef marketing in Hawaii.

The third alternative structure examined was the establishment of some form of producers' cooperative. This appears to be the most promising of the three options considered. Within this alternative two different cooperative stuctures were examined: one where the majority of the firms in the beef industry, including the two largest firms, were part of the cooperative; and another where the two largest firms were not members.

From the point of view of the Hawaii beef industry, an industry-wide cooperative would be advantageous if the gains resulting from the formation of the cooperative exceeded the costs. The principal source of gains would be any economies resulting from larger-scale operation of the feeding, slaughtering, and wholesaling portions of the beef production and marketing system. It is likely that economies of scale would exist in the feeding and slaughtering activities since there is evidence that both these segments currently have excess capacity.

There are potential gains to be realized from the coordinated marketing of Hawaii's beef. It seems to make little sense to have the existing operations competing for the small portion of the total market currently supplied by the Hawaii beef industry. The two largest firms, however, may not find it to their advantage to participate in such a cooperative venture. These two firms already have investments in slaughter facilities and the largest firm owns a feedlot. It is likely that they are already capturing at least some of the potential scale economies. If they were to join a cooperative, it would probably mean that they would have to forego at least some of the benefits they may currently be obtaining from scale economies. The same losses would also occur if the two larger firms are now capable of exerting some form of market power over the smaller firms.

Another reason that the largest firms might not find it advantageous to participate in a cooperative is the "one-member, one-vote" decision-making procedure followed by cooperatives. There exists the real possibility that the smaller ranches would band together to implement programs that would benefit the smaller ranches at the expense of the larger ranches. It is true that the Hawaii cooperative law permits the cooperative to institute alternative voting procedures in its charter. However, no such provision exists in the Federal cooperative laws.

Another form of cooperative would be one formed exclusive of the two largest firms in the industry. Such a cooperative could take two possible forms: it could either market its members' cattle to the existing slaughterhouse or it could establish its own feeding or slaughtering operations, or both. In the first case, the cooperative would essentially act as a marketing agent for its members. It could collect price and other market information in Hawaii and on the Mainland and act to insure that its members receive the best possible prices. This type of arrangement will be efficient if the two large firms are currently able to exert some degree of market power over the smaller producers.

If the cooperative were to establish its own feeding and/or slaughtering operations, it would essentially be in competition with the existing operations. The formation of such a cooperative would require large capital commitments from it members and would be likely to produce substanial gains only if the small firms are currently suffering financial losses because of the market position of the larger firms. As many of the smaller ranches are currently stockholders in the largest slaughterhouse, this does not appear to be likely. Also, given the capital-intensive nature of slaughtering operations and the existing excess capacity, the establishment of another slaughtering operation would make at least one of the existing operations redundant.

In some markets, the formation of an industry-wide cooperative could be considered in restraint of trade and be subject to prosecution under the anti-trust laws. However, as the majority of the beef consumed in Hawaii is imported and the price of beef in Hawaii is determined on the Mainland, legal obstacles to the formation of a producers' cooperative in Hawaii appear to be virtually nonexistent.

Of the three alternatives examined, the formation of some form of producers' cooperative is clearly the only one to offer some potential gain to the Hawaii beef industry. It is not possible at this time to make any definite statement on whether or not the potential gains will exceed the costs incurred in the formation and operation of some form of producers' cooperative. It is also not clear that all producers would enjoy a net benefit from such a venture. However, a cooperative involving the producers of the majority of the beef in the State appears to be the type of organization that could result in a coordinated marketing system.

MAJOR CONSIDERATIONS

The following is a list of the major factors that should be considered when various options are being developed and/or analyzed as possible alternative marketing systems for the Hawaii beef industry.

1. Per capita consumption of beef in the United States and in Hawaii has been declining over the past four years.

2. Hawaii is a small regional market that cannot act independently of the national market of which it is part. Accordingly, the price structure for beef in Hawaii is determined by supply and demand conditions on the Mainland.

3. Hawaii is a "pocket market," which means that Hawaii cattlemen are restricted to selling their cattle within the State.

4. Since the Hawaii beef industry must compete with the Mainland beef industry on quantity, quality and price levels, it must be able to produce, fatten, slaughter and sell on a relatively equal cost basis, unless it is willing to accept lower profit margins than its counterparts on the Mainland. Because feed and other inputs must be imported from the Mainland, the Hawaii beef industry is not cost-competitive with the industry on the Mainland.

5. Coordinated marketing of livestock is generally nonexistent throughout the entire beef marketing system. Slaughter plants have only limited control over when cattle enter the slaughter plants since feeding and slaughtering is mainly on a consignment basis. Thus, slaughter plants lack the ability to establish permanent markets because they are unable to provide consistent qualities and quantities of beef to retail outlets.

6. Frozen beef imported from Australia and New Zealand is very acceptable to manufacturers of processed beef and hamburger. It is available on short notice in virtually unlimited quantities. The supply is reliable and the price is at a level with which the Hawaii beef industry finds it difficult to compete. While the Hawaii beef industry is suffering hardships in terms of reduced markets, the beef consumers in Hawaii are able to buy certain types of beef at a price below that which would result if Australian and New Zealand beef were not imported into the State.

7. There is almost a complete lack of communication between and within the various segments of the industry. Ranchers do not fully understand the pricing system, members of one segment do not know what type of adjustments they should make in response to adjustments in another segment, and there is little coordination of activities among and between the various segments. These factors promote a great deal of mistrust among these segments.

8. Intermediate- to long-term survival of the Hawaii beef industry requires a coordinated marketing system. The Hawaii beef industry is severely constrained by competition from the U.S. Mainland and Australia/New Zealand. A coordinated marketing system could conceivably result in some economies of scale in processing (feeding and slaughtering) as well as an aggressive marketing program to possibly capture a larger share of the market. In general, it makes little sense to have members of the Hawaii beef industry compete among themselves for the small portion of the total market currently supplied by the Hawaii beef industry.

9. With the majority of beef consumed in Hawaii being imported and the price of beef in Hawaii determined in the U.S. Mainland market, legal obstacles to the formation of a producers' cooperative appear to be virtually nonexistent.

10. A cooperative venture including the two largest producers appears to be the most viable form of alternative marketing system.

11. Even if a coordinated marketing system were developed and implemented, this would not guarantee the survival of the Hawaii beef industry.

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NOTE: As part of a structural reorganization, the Hawaii Agricultural Experiment Station and the Hawaii Cooperative Extension Service have been merged administratively under the name HAWAII INSTITUTE OF TROPICAL AGRICULTURE AND HUMAN RESOURCES, College of Tropical Agriculture and Human Resources, University of Hawaii.

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