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U.S. DEPARTMENT OF AGRICULTURE
FOREIGN AGRICULTURAL SERVICE

THE BEEF

EXPORT TRADE

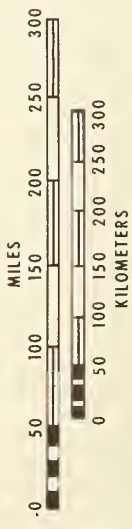
OF CENTRAL

AMERICA

CENTRAL AMERICA



- Livestock concentrated in shaded areas along Pacific Coast
- Major meat export ports
- Location of packing plants certified to export beef to the U. S.



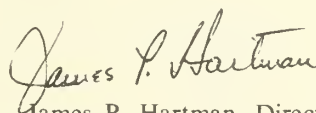
FOREWORD

Nicaragua, Costa Rica, Guatemala, and Honduras have during the past 8 years increased their production of beef and their foreign trade in this meat. Before 1957, nearly all the beef produced in these countries went into domestic consumption; since that time, production gains have tended to move into export channels to Puerto Rico and the U. S. mainland.

However, the four Central American countries' governments, which have been actively working to stimulate development of their livestock and meat industries, are at the same time concerned with supplying their increasing domestic needs, and this emphasis may lead to diversion of more meat into domestic channels in the future.

This study is one of a series designed to help the Department of Agriculture and the U. S. livestock industry keep informed of developments in meat and livestock exporting countries of the world. It was prepared as a result of the author's visit to the area and his personal observation of the meat and livestock industries there in 1965.

During the visit, he was assisted by numerous individuals and organizations in Central America and wishes to acknowledge their helpfulness. They include officials of the major meat export plants visited and the livestock associations, U. S. Agency for International Development, and U. S. embassies. Especially helpful were U. S. Agricultural Attaches, Marshal D. Fox, Richard Smith, and Dalton L. Wilson, who throughout the entire study gave the author their fullest cooperation.



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The BEEF Export Trade of CENTRAL AMERICA

By MARTIN V. GERRITY

Livestock and Meat Products Division

In the 7 years ending in 1964, Nicaragua, Costa Rica, Honduras, and Guatemala increased beef production by a total of 70 million pounds. Most of this four-country gain in output entered export channels.

Much of the increased output was attracted to the U.S. market for the last few years by favorable prices, accessibility, and receptiveness to lower grade beef somewhat similar to U.S. imports from Australia and other sources. For the four Central American countries¹ combined, this has meant a rise of U.S. imports from less than 1 million pounds in 1957 to over 60 million in 1964. However, the United States as a market has been more important to these countries than they have been to the United States as a supplier; as late as 1963, the four together supplied only about 6 percent of total U.S. imports of fresh or frozen boneless beef, and Australia, over 50 percent. In 1964, improved beef prices in Europe tended to divert beef to Western European markets, particularly Australian and New Zealand beef.

While the Central American countries cannot now obtain enough refrigerated ships to capitalize on European export opportunities, they can supply some nearby U.S. markets by use of refrigerated trucks on barges, towed into port. Other shipments move by refrigerated ship through the Panama Canal. Destination of about 25 percent sent to the United States is Puerto Rico; most of the balance goes to the Florida ports of Miami and Tampa, the remainder to ports in California, Delaware, and New York. Some is hauled overland from port cities.

Like Australia and New Zealand, the Central American countries tend to supply foreign markets with ranged beef, exported in frozen boneless form. However, U.S. imports are not all destined for processing. The U.S. purchaser of imported beef, who buys the entire boned carcass at the packinghouse paying an average price, has the primal cuts and smaller pieces packed separately. About 50 percent goes into primal cuts and

is sold at higher prices at destination. The balance is used in manufacturing. Prices of slaughter cattle for export tend to exceed prices of animals for domestic consumption, effectively channeling appreciable supplies of beef into export trade.

Factors favorable to export trade in Central American beef in general include low labor costs and the development in recent years of packinghouses meeting export standards.

Central American livestock raising tends to be concentrated in areas for which there is a minimum of competition from crops. Herds consist mainly of criollo cattle. In recent years, efforts have been undertaken to upgrade these herds with imported purebred animals; national governments are offering aid for this and other improvement efforts through development programs. Another need is for improved roads into major agricultural producing areas, which could open up thousands of acres for cattle production.

Government programs will apparently continue to encourage expansion of the industry and hasten its improvement. In the meantime, governments are concerned that as the national economies have expanded and domestic consumer incomes have risen, beef available for consumption has fallen, on a per capita basis. It is expected that government policy of the near future will tend to emphasize diversion of more beef into domestic channels rather than export.

Table 1.—BEEF AND VEAL: U.S. imports from
Nicaragua, Costa Rica, Guatemala, and
Honduras, 1957-64

Year	(Product weight)				
	Nicaragua	Costa Rica	Guatemala	Honduras	Total
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1957	—	805	—	—	805
1958	40	2,806	—	409	3,255
1959	5,768	9,840	—	1,509	17,117
1960	10,127	15,335	—	3,391	28,853
1961	14,577	8,719	1,927	5,525	30,748
1962	15,795	8,111	12,268	9,324	45,498
1963	24,518	15,163	14,773	9,336	63,790
1964	23,566	17,662	11,832	8,572	61,632

¹ This report excludes British Honduras and El Salvador which do not export beef to the United States; Panama is excluded because its exports are negligible.

NICARAGUA

Economic situation

As of early 1965, Nicaragua had experienced 4 years of unprecedented economic expansion and appeared to have much rapid growth yet to come. Continued expansion in cotton production and exports had contributed to the economic well being, but increased production of other basic agricultural commodities, good prices for exports, and rising industrial production had also played important roles.

An important contributor to Nicaragua's export growth of recent years has been the cattle and beef industry, which since first entering the beef export market in 1958 has become the country's third largest agricultural earner of foreign exchange. (Cotton and coffee are first and second largest exports respectively.)

The development of an export market in the United States for Central American beef has been almost entirely responsible for this expansion and for Nicaragua's increasing its beef production from about 44.9 million pounds in 1958 to 79.5 million in 1964 and improving three of its packinghouses to meet U.S. import requirements.

Today, the Nicaraguan Government, aided by loans and assistance, is working to improve further its cattle and beef industry, with emphasis now, however, on filling unmet domestic requirements plus export demand.

Industry characteristics

Farm conditions.—The cattle population of Nicaragua is made up principally of native criollo cattle—a slow maturing type with low meat yields. However, the major cattle producers have been successful in improving their herds by crossing the criollos with imported Brahman bulls, and one relatively large producer in the Chinandega region has obtained excellent results from crossing the native criollo with imported Santa Gertrudis. Imported semen is also being used to some extent as part of the cattle improvement program.

Cattle production is concentrated in the Pacific region, where competition for the land from crops is less than in other regions. However, pasture conditions here, as in most of the grazing areas of the other three countries surveyed, are extremely poor for at least 6 months out of the year because of lack of rainfall. Between December and May, water becomes scarce, pasture land dries up, and the entire cattle population is adversely affected. One major cattle operation in the Chinandega area has installed irrigation facilities with apparent excellent results, but because of the high capital investment involved, it does not appear likely that this system will be extended significantly in the near future to other areas of the Pacific region.

Work plans designed to improve the overall pasture condition in Nicaragua are included in a proposed live-stock project financed by a \$9 million loan authorized in 1964 by the Inter-American Development Bank.

There are relatively few ranches in Nicaragua carrying over 10,000 head. Most of the cattle population is centered on small units with between 50 and 300 head per unit.

Marketing and processing facilities.—Nicaragua has been making substantial progress in improving its transportation system, especially in the Pacific region where most of the cattle is produced. Good paved roads now connect the principal centers of economic activity in this area and an all-weather road, the Rama Road, has been constructed with the help of U.S. grants, to connect the Pacific with the Atlantic region. Nicaragua also has a government-owned railroad which provides transportation from the port of Corinto to the principal cities of the Pacific region. The cattle are generally moved by truck to the packing plants, and the meat is then moved by refrigerated trucks to the port facilities.

Nicaragua has three packinghouses approved for export. Two plants generally operate on a full-time basis, while the third usually shuts down for 5 or 6 months a year during the dry season, when cattle are at relatively light weights and in scarce supply. Names and locations of the plants certified to export meat to the United States are as follows: (1) Empacadora Nicaraguense, S.A., Condega, Esteli, Nicaragua, C.A.; (2) Infagan and Cia, Ltd. (Matadero Modelo), Managua, Nicaragua; (3) Productos Carnic, Managua, Nicaragua.

Plant No. 1, located at Condega, has been operating only during peak seasons. For example, it was in operation from July 1964 to about March 1, 1965. Then,

Table 2.—NICARAGUA: Beef production, net exports, and consumption, carcass weight, 1956-64, and projections for 1965

Year	Production ¹	Net exports ²	Available for consumption	Per capita consumption
	1,000 pounds	1,000 pounds	1,000 pounds	Pounds
1956	39,945	—	39,945	30
1957	41,197	—	41,197	30
1958	44,871	58	44,813	33
1959	49,353	8,421	40,932	28
1960	53,922	14,785	39,137	26
1961	65,139	21,285	43,854	28
1962	67,108	23,077	44,031	28
1963	90,278	36,599	53,679	33
1964 ³	79,531	35,040	44,491	26
1965 ⁴	85,794	35,500	50,294	29

¹ Beef production based on average live weight of 390 kilos for cattle slaughtered and a carcass weight yield of 50 percent. ² Converted from product weight, conversion factor 1.45. ³ Preliminary. ⁴ Forecast.

when the cattle supply became rather limited, it closed temporarily and was not expected to open until about July 15. This plant has the capacity to slaughter about 120 animals per day. During July-March 1964-65, 15,000 animals were slaughtered here.

Plant No. 2, Infagan (Matadero Modelo) is by far the largest of the three export plants located in Nicaragua, with the capacity to slaughter as many as 500 animals per day. (Production during the dry season is usually about 200-250 head per day.) Exports from this plant to the United States in 1964 totaled about 16 million pounds.

Plant No. 3, Productos Carnic, is the smallest of the three export plants, with daily slaughter usually in the 60- to 70-head range. However, plans are to expand this plant in the near future, and eventually it will have a daily capacity of between 200 and 250 head.

At the time of the author's visit, these packinghouses all were certified as having sanitary and inspection facilities that were at least the equivalent of regulations currently in effect for U.S. packing plants. The plant managers at each of the plants visited mentioned previous visits by USDA inspection officials and pointed out improvements in sanitary facilities that had been made as a result of their recommendations.

Most of the meat exported from Nicaragua is shipped from the Pacific port of Corinto. The meat is transported by refrigerated truck from packing plant No. 2 to a refrigerated warehouse located at the port and owned by Infagan, the largest meat exporting company in Nicaragua. As ships are available, the meat then moves via the Panama Canal to either Florida or Puerto Rico.

Meat from the other two packing plants is shipped primarily from the port of Matias de Galvez, located on the Caribbean in Guatemala. The meat is shipped from the packing plants to the port in refrigerated trailers, which are loaded on barges for delivery to Miami, Tampa, or Puerto Rico.

The barges to Florida generally carry between 18 and 35 trailers. Temperature in these trailers is usually kept at about zero degrees to protect the meat in case there is a breakdown in refrigeration facilities during transit. Cardboard boxes weighing between 45 and 65 pounds are used for packaging most of the meat. The meat is packed according to quality and anticipated price, with tenderloins and other choice cuts boxed separately from individual smaller pieces to be sold for manufacturing purposes. (Meat from the other three countries generally moves out in the same way as that from Nicaragua).

Two of the export plants also ship fresh meat by air to Puerto Rico from Managua's municipal airport. Shipments by air are limited, however, by high costs and the lack of facilities. The modern refrigerated warehouse located at the port of Corinto has a capacity of

750 tons, which is sufficient to handle current needs plus providing room for potential expansion.

Prices.—As lower quality beef, Central American beef competes in the U.S. market largely in terms of prices. Some cost advantage is inherent in the Central American method of range feeding cattle by contrast with U.S. fed cattle. Another advantage lies in the lower labor costs in Central America, such as the \$3-a-day wage, or less, of skilled labor in packinghouses. When it goes for export, the beef, of course, has the added cost of freight, plus the U.S. import duty of 3 cents per pound.

Nicaraguan packing plants, with labor costs ranging between \$1.50 and \$3.00 per day, generally pay between 11.0 and 12.5 cents per pound to producers for live animals. Prices vary according to the weight of the animal, with the heavier animals commanding a higher rate, and also according to whether or not the animal is to be slaughtered for export. Generally, export plants pay more for cattle, purchase larger lots, and make prompt payments.

Prices received by the plants for boned beef, f.o.b. for export, average just under 32 cents per pound. The freight rate for meat shipped from Nicaragua to Florida via Guatemala's port of Matias de Galvez is currently 3.5 cents per pound, while that from the port of Corinto to Florida via the Panama Canal is 3 cents. Air freight from Managua to Miami is 5 cents.

Assistance programs

The problems of Nicaragua's cattle industry are being attacked through a comprehensive development program financed in part by an Inter-American Development Bank loan of \$9.1 million and in part by about \$12.7 million from the National Bank of Nicaragua, which will also administer the IAD Bank loan. The aim of the program is to increase the rate of reproduction, reduce mortality rates, achieve higher meat yields, and lower the slaughter age of animals. Part of the money will go toward preparation of approximately 95,000 hectares for pasture; construction of 2.5 million meters of fencing; construction of wells, troughs, artificial ponds, drinking pools, silos, corrals, and dipping facilities for killing ticks.

In addition, the Inter-American Development Bank recently made a loan to the National Development Institute (INFONAC) totaling \$1.1 million for the purchase of breeding cattle in the United States.

Trade policy

In recent years, Nicaragua's trade policy has been subordinate to the exigencies of economic development. The desire to protect domestic industry and the constant pressures caused by balance-of-payment difficulties have resulted in imposition of various restrictions

on trade. However, Nicaragua has shown willingness to ease or eliminate restrictions, particularly those with their origin in balance-of-payments problems, as economic conditions improve.

Also of considerable importance in Nicaragua's trade policy is the Central American Common Market (CACM). Since the signing of the Multilateral Treaty on Central American Free Trade and Economic Integration in Tegucigalpa on June 10, 1958, the Nicaraguan Government has demonstrated its continued interest in the realization of a Central American Customs Union.

Nicaragua is a contracting member of the General Agreement on Tariffs and Trade (GATT), but is not at present applying the bound rates of duty on items which were negotiated with the United States and other countries. In order to delay application of the bound rates Nicaragua has received two waivers from GATT. In 1959, Nicaragua obtained the first waiver for balance-of-payment reasons. In 1961, another waiver was obtained, this time to enable Nicaragua to participate more fully in the CACM.

Exports of live cattle are largely prohibited by government decrees, which were issued in 1963 primarily to bolster INFONAC's program to increase the livestock population. Breeding cattle, by far the most important livestock item imported into Nicaragua from the United States, are admitted duty-free.

Exports

Nicaragua's exports of beef in 1964 were down to \$7.4 million (35.0 million pound carcass-weight equivalent) from the record 1963 level of \$8.7 million (36.6 million pounds). This paralleled the decline in beef production caused by herd rebuilding after the 1963 drought. In 1964, as in past years, the United States was the major market, taking 23.6 million pounds (product weight) against 24.5 million in 1963. In each of these 2 years, exports of beef to countries other than the United States totaled less than 500,000 pounds per year and were shipped generally to such areas as El Salvador, the Dutch West Indies, Costa Rica, Panama, and Honduras.

In past years, Nicaragua was a relatively large exporter of live cattle, primarily to Costa Rica and Peru. However, cattle exports have dropped substantially in

recent years, owing to restrictive governmental regulations pertaining to the export of live animals, coupled with a reduction in availability of cattle as a result of substantial gains in beef exports. In 1963 cattle exports, which in 1959 totaled over 45,000 head, were down to 5,500 head, and incomplete data for 1964 indicate further declines.

Imports

Practically all of the meat imported into Nicaragua is in the form of sausage, canned pork, luncheon-meat products, and meat extracts. The amount imported is relatively insignificant, and the United States is generally the major supplier.

In the past, cattle imports into Nicaragua were small, usually totaling less than 500 head a year, and these imported animals were mainly purebred stock from the United States and slaughter cattle from Costa Rica. Cattle imports, primarily purebred, are expected to increase substantially over the next 5 or 6 years as part of the government's livestock improvement program.

Export prospects

Beef exports from Nicaragua are expected to increase slightly in 1965 and 1966, along with expected gains in domestic production. Over this period, cattle are expected to continue in relatively short supply, with demand for local consumption and export needs remaining strong. This feeling is shared not only by the major beef exporters but also by officials directing Nicaragua's long-range livestock improvement program.

Over the longer period, by 1970 for example, the amount of meat that will be available for export will depend on the success of various assistance programs that have been initiated during the last several years. Present indications are that these programs will be reasonably successful, and as a result, more beef will become available for domestic consumption and for export.

The Nicaraguan Government has expressed interest in increasing domestic beef consumption. If this interest is followed up with government restrictions on exports, a substantial part of the anticipated gain in production should find its way into domestic consumption rather than into export markets.

COSTA RICA

Economic situation

The gross national product of Costa Rica has been estimated at \$511 million for 1964 (\$370 per capita), a gain of 5 percent over 1963. A gain in 1965 is also expected, at a lower rate, however, owing to damage

caused by the eruption of the Irazo volcano. Beef cattle output was only slightly affected by the volcanic disturbance since few beef cattle were on pasture in the vicinity of the volcano. There were dairy herds in the

immediate area, and they were seriously depleted.

Agriculture as a whole is declining in importance to the Costa Rican economy (its contribution was down to 35 percent of the GNP in 1965 compared with slightly over 50 percent in 1950). However, Costa Rica's interest in the development of the beef cattle industry continues, with this the major active program in the agricultural field.

The reason for the strong interest in livestock production is the inability of producers to meet domestic consumption requirements and at the same time satisfy export demand for live cattle and boneless beef. Like Nicaragua, Costa Rica has increased its beef production—from 40.9 million pounds in 1958 to 59.3 million in 1964. This gain has been channeled into the export market, to the point that beef and live cattle are currently the country's fourth largest agricultural earner of foreign exchange (after coffee, bananas, and cocoa beans). However, the price advantage that has favored export growth over domestic growth has also caused a domestic beef shortage, which was especially severe in the summers of both 1964 and 1965. This shortage forced the government in 1965 to cease considering permits to export live cattle to Italy—a large market in 1964.

Industry characteristics

Farm conditions.—The current cattle population of Costa Rica is made up primarily of the native criollo type. Here, too, there is an effort underway to upgrade the cattle, through breeding with purebred cattle imported from the United States.

The main producing area for beef cattle in Costa Rica is the Pacific region, mainly in the Provinces of Puntarenas and Guanacaste. These areas have fairly good grazing land, which was not affected by ash from the volcanic eruption. The Atlantic region, though not now meeting its production potential, is expected to

Table 3.—COSTA RICA: Beef production, net exports, and consumption, carcass weight, 1957-64, and projections for 1965

Year	Production ¹	Net exports ²	Available for consumption	Per capita consumption
	1,000 pounds	1,000 pounds	1,000 pounds	Pounds
1957	39,488	1,167	38,321	37
1958	40,890	4,069	36,821	34
1959	49,758	14,268	35,490	32
1960	44,533	22,236	22,297	19
1961	47,855	12,643	35,212	29
1962	48,000	11,761	36,239	28
1963	50,000	21,986	28,014	21
1964 ³	59,272	25,610	33,662	25
1965 ⁴	60,000	19,140	40,860	28

¹ Based on an estimate of 400 pounds carcass weight per animal slaughtered. ² Converted from product weight, conversion factor 1.45. ³ Preliminary. ⁴ Forecast.

show considerable improvement in the future as a result of livestock development programs that have been initiated throughout the area. The Atlantic area has green pastures available throughout the year; therefore, if this area were well developed, the beef cattle industry would be improved considerably.

Although cotton, rice, and sugarcane are produced profitably in the Pacific region there is no great competition from these crops for the land. Cattlemen in this area are reluctant to shift to crop production, which they feel carries more risk than producing cattle.

There are only two or three relatively large cattle ranches in Costa Rica with more than 20,000 head of cattle. About 40 percent of the ranches have between 2,000 and 12,000 head, and the balance are small farms, with herds ranging from 2 or 3 head up to 500.

The Costa Rican Central Government has three major experiment research stations doing research designed to improve beef and dairy cattle production. One station is located in Limon Province, another in the Central Plateau in Cartago Province, and one in Guanacaste Province.

Marketing and processing facilities.—Facilities for transporting cattle and meat are considered adequate in Costa Rica. Most cattle are moved by truck over fairly good roads from the producing areas to the packing plants. Rail services are also used in some areas for transporting cattle. As in other Central American countries, refrigerated trucks are used to haul the meat from the packing plants to the ports of embarkation.

Costa Rica has four *packinghouses* approved for export, but in early 1965, only two of the plants were operating full time. Owing to the scarcity of cattle supplies, one plant was shut down temporarily and the other was operating only on a part-time basis. The names and locations of the plants eligible to export beef to the United States are as follows: (1) Cartago Beef Packing, Cartago Province; (2) Henderson Packing Portion Plant, San José Province; (3) Beef Products Company, San José Province; (4) Barranca Meat Plant, Puntarenas Province.

Plants No. 2 and No. 3 do not slaughter cattle on the premises. The carcasses that are boned-out for export at these plants are obtained from a slaughter plant located at Montecillos in Alejuela Province. In early 1965, officials of Plant No. 1 announced plans for establishing a slaughter and packing plant at Liberia in Guanacaste Province where cattle are in more plentiful supply. This new plant would, in effect, take over the export business now done by the Cartago plant, which has had considerable difficulty in obtaining sufficient supplies of live cattle.

Most of the meat exported from Costa Rica is *shipped* from the port of Limon, located on the Atlantic, with small quantities going from the port of Puntarenas on the Pacific. The meat is hauled to these ports by

refrigerated trucks for transport by sea to various destinations in the United States or Puerto Rico.

Some beef from Costa Rica is also transported by truck to Guatemala and shipped by barge from Guatemala's Atlantic port of Matias de Galvez. The El Caco International Airport at San José is used to export the very small tonnage of beef that is transported to foreign markets by air.

Prices.—For the marketing year 1964-65, Costa Rican meatpackers agreed to pay a minimum of 11.9 cents per pound for cattle (live weight) slaughtered for export. It is estimated that prices paid for cattle intended for domestic consumption over this same period averaged approximately 1½ cents per pound lower, or about 10.3 cents. Cattle sold live for export commanded higher prices than slaughter cattle. (The f.o.b. price for live cattle sold to Italy during the past year averaged about 14.4 cents per pound.) As a result, ranchers in Costa Rica prefer to sell their cattle to exporters of live animals and plants that slaughter for export rather than to plants that cater to domestic consumption needs.

Boned beef for export brought around 32-34 cents per pound f.o.b. port, and shipping rates for beef exported from Costa Rica to the United States in 1964-65 ranged from 2 cents per pound to 3.5 cents, depending on the port of exit.

Assistance programs

The Costa Rican Government, in connection with the National Production Council (CNP)—a semiautonomous institution responsible for carrying out the country's farm policy—has been actively engaged in various programs to assist the livestock industry. Improvement in animal husbandry practices is being stressed. Bank credit facilities have been extended to cattlemen for the importation and/or local purchases of better breeding cattle to improve their herds. The CNP has already started importing bulls for distribution among small cattle ranchers to assist with cattle upgrading. The Central Government has also established three cattle research stations for the purpose of developing and disseminating information designed to improve and increase the livestock population.

Trade policy

Costa Rica regulates exports through a quota system established annually by the National Production Council, which as part of its function regulates the country's meat and cattle exports and controls prices. The CNP established a cattle quota of 42,178 head for 1964-65, which included the number of head that could be slaughtered for beef for export as well as the number that could be shipped live. This agency also sets

a minimum cattle price for payment to producers.

Breeding cattle, the main item purchased in the United States, can be imported into Costa Rica at a duty of 2 percent ad valorem. However, the duty on all other cattle is 19 percent ad valorem.

Exports

Costa Rican beef exports rose to a record 25.610 million pounds (carcass-weight equivalent) in 1964 from 22.0 million in 1963. Far the largest market, the United States took over 17 million pounds (product weight) compared with 15.2 million in 1963. Other markets that have imported minor quantities of beef from Costa Rica are Greenland, Aruba, Venezuela, Curacao, Jamaica, and El Salvador.

Costa Rica also exports live cattle to other Central American countries and in 1964 was able to enter the European market for the first time as a major outlet. Traditionally, live cattle exports from Costa Rica have consisted of steers shipped primarily to Peru, Curacao, and Aruba, with small numbers to Martinique, Nicaragua, and Honduras. In 1963, the total number shipped to these countries was about 5,200 head, while in 1964, Italy alone imported about 5,400 head. The Costa Rican cattle producers prefer to sell live cattle for export rather than to the packing plant since they obtain greater financial returns from such transactions. The packers, who must bid on an export quota established by the National Production Council, prefer to export boned beef.

Imports

Costa Rica is only a minor importer of meat and meat products. Most of the products imported are in some form of pork, primarily ham or sausage, from Nicaragua, Panama, the United States, and the Netherlands. Pork production is low in Costa Rica relative to demand, and as a result, prices on this product are abnormally high.

Costa Rica imports live cattle primarily from the United States, with only token imports from Guatemala, Panama, and El Salvador. All imports of cattle are of purebred stock for breeding purposes.

Export prospects

The large exports of beef and cattle in 1964 have resulted in a general shortage of beef and cattle for export markets in 1965. Indications are that total beef exports in 1965 will fall to below 20 million pounds (carcass-weight equivalent), compared with 25.6 million in 1964. Also, it is expected that domestic producers will continue to exert strong pressure for permission to export live animals rather than sell to packing plants that export boneless beef.

Over the long term, it is expected that increases in beef production will be absorbed generally in domestic channels rather than in the export market. Domestic

per capita beef consumption, which totaled 37 pounds in 1957, has dropped substantially during recent years and totaled only about 25 pounds in 1964.

GUATEMALA

Economic situation

Economic activity in Guatemala continued to move upward in 1964, and at the end of the year, the country was entering its 22d month of unsurpassed prosperity. During 1964 there was a 7.0-percent increase in real gross domestic production and a 9.9-percent increase in gross domestic income, according to first preliminary estimates by the Bank of Guatemala. More than a quarter of the improvement in gross national income resulted from an improvement in export trade, especially trade in some of the major crops. In 1965, expansion again appeared likely for the overall economy, including the agricultural sector, which accounts for about one-third of the gross national product.

The beef industry in Guatemala has not experienced such startling growth as in Costa Rica and Nicaragua. Production of beef, which was 67.7 million pounds in 1958, reached a high of 75.2 million in 1963 and then declined to 71 million in 1964.

The country has nevertheless built up a substantial export industry since around 1962, and beef and cattle rank fifth among agricultural commodities as a foreign exchange earner. Here, too, the growth in meat exports has been at the expense of domestic consumption, and efforts are underway to alleviate the domestic shortage by increasing cattle and beef production.

Industry characteristics

Farm conditions.—The livestock population of Guatemala is made up primarily of native criollo cattle. This type, however, is being increasingly crossed with Brahmans, and Santa Gertrudis and, to a limited extent, with Charolais, Angus, and Brangus. The Ministry of Agriculture, with the cooperation of U.S. Agency for International Development, is actively engaged in promotional programs designed to improve the livestock industry throughout Guatemala. These programs include improvements in artificial insemination techniques and importation of frozen semen and purebred cattle.

The Pacific coast area is currently the center of most of the pasture improvement operations in Guatemala and offers the greatest potential in this field for the immediate future, although the area located near the border of Honduras and El Salvador has also made some advances in pasture improvement techniques during recent years. The Pacific region, which 15 years

ago was primarily jungle land, has been gradually converted to improved pasture land, corn, cotton, and sugarcane. The byproducts from crop production in this area are being used to some extent as part of an expanding cattle-fattening operation initiated by the major ranchers located in this area. Cattle produced in areas along the Honduran and El Salvadoran border are also being moved to this Pacific region for about a 3-month fattening period prior to slaughter.

Competition for land use in the Pacific coast region is becoming stronger every year; as a result, Guatemalan cattlemen in their long-range planning feel that the El Peten and Caribbean region offer great potential for future livestock development purposes. The El Peten region is a remote area in the northern part of the country and accounts for about one-third of the total land area. At the present time, this region is sparsely populated and lacks essential road communications with the rest of the country. Two government agencies, The National Corporation for the Promotion and Development of The Peten (FYDEP) and the National Institute for Agricultural Transportation (INTA) are charged with taking the initial steps designed to develop this area. Projects already initiated include road construction and, to some extent, encouragement of livestock production.

There are relatively few large ranches in Guatemala with cattle numbers ranging between 10,000 and 20,000 head. These large ranches are very progressive and have been actively engaged in programs designed to

Table 4.—GUATEMALA: Beef production, net exports, and consumption, carcass weight, 1957-64, and projections for 1965

Year	Production	Net exports ¹	Available for consumption	Per capita consumption
	1,000 pounds	1,000 pounds	1,000 pounds	Pounds
1957	65,875	—	65,875	19
1958	67,675	—	67,675	19
1959	63,382	—	63,382	17
1960	71,169	—	71,169	19
1961	69,922	2,794	67,128	17
1962	69,872	17,789	52,083	13
1963	75,233	21,421	53,812	13
1964 ²	71,000	17,156	53,844	13
1965 ³	73,500	15,225	58,275	13

¹ Converted from product weight, conversion factor 1.45.
² Preliminary. ³ Forecast.

improve their facilities. Animals stocked at the major ranches are primarily criollos (native stock); however, Brahmans and Santa Gertrudis are being added in increasing numbers to upgrade herds. The smaller farms and cattle ranches, which have the balance of the Guatemalan cattle population, mostly criollos, generally have all the way from 2 to 3 head on the smaller farms to 700 to 800 on the large ones.

Marketing and processing facilities.—Guatemala has made substantial progress in improving its *transportation* system. Practically all meat produced for export is transported over good paved roads to the Guatemalan Caribbean port of Matias de Galvez. Internally, cattle are transported by both rail and truck. The International Railway runs from the vicinity of the port of Matias de Galvez to the Mexican border on the Pacific coast with a branch line to El Salvador. Also, when completed in the near future, the Inter-American Atlantic and Pacific Slope Highways will give Guatemala modern, hard-surfaced roads from the Mexican border to the El Salvadoran frontier, both in the Pacific lowlands and the mountain highlands, and from Guatemala City to Puerto Barrios on the Caribbean.

As of the first of 1965, Guatemala had two *packing-houses* certified to export beef: (1) Exguapagra Sociedad Anonima; (2) Ralda, Berger and Company. Each plant was shipping roughly about 50 percent of the meat entering the United States from Guatemala. The export license of the Exguapagra plant was revoked on June 21, 1965, until such time as recommended changes in sanitary conditions are made. In total, Guatemala has 22 packing plants, with only 1 now certified to export beef. Currently, there are no plans to request certification for any of the packinghouses that are producing for domestic consumption needs.

Sanitation and inspection standards at the one Guatemalan meat plant that is certified to export meat to the United States have been approved as being the equivalent of requirements for U.S. packing plants. Plants operating for domestic consumption apparently are not required to meet the same sanitation standards set for the export plants and as a result, facilities and sanitation at these plants would have to be improved considerably before they could meet the standards set for U.S. imports.

Practically all meat that is produced for export is transported by refrigerated truck to the Guatemalan Caribbean port of Matias de Galvez. At the port, the trailers are loaded on barges for shipment to the Florida ports of Miami or Tampa. On rare occasions, some carcass beef is shipped directly to Puerto Rico by sea, and a small amount of boneless beef is shipped by air to Miami.

The facilities at the port of Matias de Galvez are currently operating at full capacity, and as a result, the Director General of Ports under the auspices of the

Ministry of Finance and Bank Credit has instituted an extensive expansion program.

Prices.—Packinghouses in Guatemala pay producers about 12½ cents per pound for cattle. In 1965 the packing plants were receiving 32 cents per pound for boneless beef for export, f.o.b. Guatemala.

The freight rate for boneless beef shipped to Florida is 2.5 cents per pound. The rate for selective frozen meat cuts shipped to Miami by air in 60-pound cartons is about 5 cents per pound. Wages paid to packinghouse workers in Guatemala are also relatively low, ranging between \$1.50 per day, to start, up to \$3.00 for skilled boners, on an incentive payment plan.

Assistance programs

From 1946 to June 30, 1963, international and U.S. Government agencies committed approximately \$200 million in economic development loans and grants to Guatemala. This amount includes loans of \$18.2 million by the International Bank for Reconstruction and Development, \$5.3 million by the Inter-American Development Bank, \$3.9 million by the Central American Bank for Economic Integration, \$45.1 million by U.S. Government agencies (including the Export-Import Bank and the Social Progress Trust Fund), \$33.7 million by the U.S. Bureau of Public Roads for construction on the Inter-American Highway, and \$92.2 million in other U.S. grants. In recent years, there has also been an increase in the amount of assistance provided in Guatemala by various U.N. agencies, by countries other than the United States (particularly Germany), and by private relief organizations.

As a result of the modification of the operation of Inter-American Cooperative Service for Agricultural Supervised Credit (SCICAS), livestock loans have increased substantially. During the period of July 1, 1964, to May 31, 1965, SCICAS loans to Guatemalan agriculture totaled \$2.6 million, and \$868,000 of this total was made to livestock producers. Small farmers purchased 1,000 heifers and 100 bulls.

Trade policy

Guatemala controls its beef export trade through export quotas. The quota for 1965 was established by the Ministry of Agriculture in early January at 22.8 million pounds, an increase of 63 percent from that authorized in 1964. In anticipation of a domestic shortage, the government later (on May 17, 1965) issued an official directive limiting meat shipments during May-August 1965 to 3 million pounds.

The Guatemalan Government has indicated a strong interest in protecting and increasing domestic consumption and therefore will probably not permit any substantial increase in exports, which might adversely affect amounts of meat available for local consumption.

Exports

Exports of beef from Guatemala declined in 1964 to around 17.2 million pounds (carcass-weight equivalent), after having reached a peak of 21.4 million in 1963. Practically all the beef moves in the form of frozen boneless beef, and most goes to the United States. Imports of Guatemalan beef by this country declined to 11.8 million pounds (product weight) in 1964 from 14.8 million in 1963. A 4.2-million-pound drop in domestic production and smaller imports of live cattle from other Central American countries were the primary reasons for the decline in total exports and in those to the United States.

Guatemala also exports token amounts of beef to other Central American countries, such as Honduras and El Salvador, and live cattle, both purebred and commercial, generally to El Salvador.

Imports

The c.i.f. value of meat and meat products imported by Guatemala in calendar year 1964 totaled \$200,000 compared with \$251,000 in 1963. The most important meat items imported by Guatemala are meat extracts, meat preparations, sausages, canned hams, and baby foods. In terms of volume, the United States has been supplying about 35 percent of the total meat products imported by Guatemala. The drop in imports in 1964 was due to stronger competition from locally produced products.

Historically, Guatemala has imported a significant number of live, light-weight slaughter cattle, primarily from Honduras and El Salvador. In 1964 the total

number of head imported was 39,000, compared with 41,000 in 1963 and 28,000 in 1962. In September 1964, the Government of Honduras passed a law banning exports of live cattle that weigh less than 661 pounds. This ban may reduce live cattle sales to Guatemala in 1965.

Guatemala has stepped up its program of importing purebred cattle for use in the Ministry's Livestock Development Project. Imports of breeding cattle from the United States, which totaled only 45 head for calendar year 1963, were up to 512 head in 1964.

Export prospects

Despite the increase in Guatemala's 1965 export quota, U.S. imports from Guatemala are expected to decrease to 10.5 million pounds (product weight) in 1965 from 11.8 million in 1964. The decrease in 1965 is expected because of the closing of one of the two plants licensed to export to the United States. There is some possibility that Guatemala may enter the European boneless beef market sometime during 1965. European meat buyers have been in the Central American area for the purpose of investigating the possibility of importing boneless beef from this region.

Over the longer period, Guatemala should have more meat available for export. Development programs already started in the El Peten and Caribbean areas should result in an increase in production. It is expected, however, that export gains will not be substantial since domestic consumption, which is currently only 13 pounds per capita as compared with 19 pounds in 1960, will undoubtedly absorb larger quantities as the economy of the country continues to expand.

HONDURAS

Economic situation

In early 1965, the general economy of Honduras was considered to be on a sound basis, with the established economic growth rate of 6 percent expected to continue throughout the year. Also, a 5-year rural development program was being prepared.

The year looked good for agriculture, too, with farm output for 1964-65 forecast to increase 7 percent above 1963-64 levels. Agriculture, along with forestry and fishing, contributes about 43 percent of the country's gross national product.

Beef and cattle are important export earners for Honduras, together ranking fifth—behind bananas, corn, cotton, and other fruits and vegetables—in the agricultural export market. In the past, this export trade has been largely in live cattle—a more profitable export than beef—and, consequently, growth in beef produc-

Table 5.—HONDURAS: Beef production, net exports, and consumption, carcass weight, 1956-64, and projections for 1965

Year	Production	Net exports ¹	Available for consumption	Per capita consumption
	1,000 pounds	1,000 pounds	1,000 pounds	Pounds
1956	26,499	-11	26,510	16
1957	24,692	-3	24,695	15
1958	25,507	589	24,918	14
1959	27,470	2,126	25,344	14
1960	29,508	5,235	24,273	13
1961	33,128	7,611	25,517	13
1962	34,412	14,374	20,038	10
1963	33,686	14,500	19,186	10
1964 ²	31,463	13,340	18,123	9
1965 ³	34,000	14,000	20,000	10

¹ Converted from product weight conversion factor 1.45.
² Preliminary. ³ Forecast.

tion and exports has not been as pronounced here as in the other three countries. (Production of beef in 1964 amounted to about 31.5 million pounds as against 25.5 million in 1958.)

It has, nevertheless, been more profitable for Hondurans to send their beef into export rather than into domestic markets, with the result that gains in beef exports have exceeded those in production. This situation, reflected in the country's having the lowest per capita beef consumption in Central America, prompted the government in 1965 to limit exports of live animals. Thus, with more cattle available for slaughter, the country will probably be increasing its beef exports as well as its domestic consumption.

Industry characteristics

Farm conditions.—The cattle population of Honduras consists primarily of the native criollo type. The few purebred beef breeds are Brahman, Santa Gertrudis, and Red Poll.

It is estimated that approximately 16 percent, or 1,793,000 hectares, of the total land area in Honduras is suitable for pastures. Currently about half of this available land—900,000 hectares—is in pasture; this is equivalent to 1.7 hectares per animal (including cattle, sheep, goats, and horses). The livestock situation in Honduras is complicated by the irregular distribution of the livestock population, distinct wet and dry seasons in many locations, irregular land topography, inadequate quantities and varieties of improved pasture grasses, and the lack of forage conservation systems.

More than 70 percent of the cattle population of Honduras is concentrated in the northern, southern, and eastern zones of the country in Departments of Cortez, Choluteca, Valle, Olancho, Yoro, El Paraiso, and Francisco Morazan. Ranch size here is about the same as in Nicaragua.

Marketing and processing facilities.—Cattle in Honduras are shipped to market by *truck and rail* facilities, both of which are considered inadequate and need to be modernized. Most rail facilities are located on the north coast, with only a few branch lines servicing inland producing areas. The inadequacies of the rail transport system and the total absence of lines in many areas of the country have caused marketing and distribution costs to be excessive, and the inadequacy of the highway network in Honduras is considered to be one of the major problems affecting the rate of the economic development of the country. Because other means of transportation are limited, the highway system takes on special importance.

When visited in 1965, Honduras had five packinghouses that were certified to export meat. It is expected, however, that the cattle supply situation will not warrant all of these plants functioning on a full-

time basis. In late 1964, one of the major exporting plants was closed down permanently, owing to problems involving sanitation deficiencies. The plants that were operating at the time of the visit are (1) Matadero de Puerto Arturo, Tela, Atlantida; (2) Empacadora ALUS, S.A., San Pedro Sulo, D.D.; (3) Catacamas Industrial, S. de R.L. de C.V. Catacamas, Olancho; (4) Empacadora de Carne de Choluteca, S. de R.L. Choluteca, Dpto. de Choluteca; (5) Empacadora del Norte, Puerto Castilla, Dpto. de Colon.

Honduras has three major *seaports* on the Caribbean and one on the Pacific. The principal ports on the Caribbean in descending order of importance are Puerto Cortez, La Ceiba, and Tela. The Pacific port is located at Amapola. Practically all meat shipments leave from Puerto Cortez.

Prices.—During early 1965, prices quoted for cattle in Honduras ranged between 8 cents per pound and 12 cents, with the heavier cattle commanding the higher price and most of the cattle selling at about 8 to 9 cents. Live cattle in Honduras are generally sold by the head rather than on a pound basis; owing to lack of average weight estimates, it is difficult to obtain reliable data on cents-per-pound prices paid producers.

Prices for boneless beef for export are about the same as in other countries, from 32 to 34 cents per pound. Transportation charges on meat shipped to the United States from Honduras are 2.5 cents per pound by sea and 5 cents by air.

Cost of farm and packinghouse labor in Honduras, as in other Central American countries, is far below U.S. levels, with packinghouse wages about \$2 a day.

Assistance programs

The Honduran Ministry of Natural Resources is cooperating in longrange development programs designed to improve the general livestock situation. These programs include the establishment of a breeding improvement program, together with the adoption of improved feeding methods, animal sanitation, and credit and marketing facilities. The principal objective of the livestock development program is to increase the country's livestock population through the distribution of purebred animals among as many livestock producers as possible. As part of the program, imports of breeding livestock will be replaced to some extent by locally produced purebred animals, which will be sold at progressively lower prices than current charges.

As far back as 1962, the Servicio Tecnico Interamericano de Cooperacion Agricola (STICA) put into effect a program designed to improve and increase the production of both beef and swine. At that time, a report by the Livestock Advisor of STICA indicated that Honduras was providing the lightest weight slaughter cattle in the Western Hemisphere. The report stated

that the average live weight of beef animals (4 to 5 years of age) was 500 pounds, and the yield of carcasses only 264 pounds. It also stated that live weight and yields had remained constant for 20 years.

As part of the program to assist the Honduran livestock industry, the International Development Bank extended a \$4 million line of credit to the Banco Nacional de Fomento; \$3 million of this was scheduled for ranch improvements, such as improved pastures, water facilities, and fencing. The remainder was for the purchase of purebred breeding cattle. In carrying out the extensive development program, STICA collaborated with the Banco Nacional de Fomento in selecting purebred stock and constructing a comprehensive training center at Comayagua. Courses taught at this center included animal sanitation, beef cattle management, and farm records and planning techniques.

About July 1, 1964, STICA was absorbed by the Ministry of Natural Resources as a semiautonomous agency. The Government of Honduras has assumed all responsibility for operating costs and has taken over the directorship of the agency. U.S. AID (Honduras) is expected to continue to support this new agency (known as DESARRURAL) by supplying needed dollar equipment and commodities and also by providing a limited amount of technical assistance. In fiscal 1965, U.S. AID contributions (grants) to the agricultural programs of Honduras (excluding forestry) are expected to be in the area of \$300,000. This agency is expected to continue to direct its attention to the production and distribution of improved corn and bean seeds and high-quality breeding cattle and swine.

Trade policy

The Government of Honduras aims at a policy of self-sufficiency in foods and encourages the production of export crops. To increase available supplies of meat for domestic consumption and exports, it did, however, enact legislation in September 1964 prohibiting exports of live cattle weighing less than 661 pounds.

There are no quantitative restrictions on cattle and meat imports. Breeding cattle, imported primarily from the United States, are admitted duty-free.

Exports

Honduras, like Nicaragua and Costa Rica, has had a beef export trade since about 1958. It shipped out about 13.3 million pounds of beef (carcass-weight equivalent) in 1964 compared with about 14.5 million in the 2 previous years. Reason for the decline in 1964 was the shortage of cattle for slaughter. As in the other countries, most Honduran exports have been in the form of frozen boneless beef.

The United States is the only major customer. In 1962 and 1963, its imports of beef from Honduras

totaled about 9.3 million pounds (product weight) but dropped to 8.6 million in 1964.

Honduras is the largest Central American exporter of live cattle. In both 1962 and 1963, its exports of cattle totaled about 44,000 head, while in January-September 1964, they were around 28,600 head. Cattle exports move primarily to Guatemala and El Salvador. Countries taking lesser numbers are the West Indies, Peru, and Panama. Strict enforcement of the law passed in 1964 limiting exports of live cattle would sharply reduce future cattle exports. Indications are, however, that this law may be difficult to enforce.

Imports

Honduran imports of beef and pork items consist primarily of pork, sausages, and meat extracts. The pork and sausage items are imported mostly from nearby Central American countries, while the meat extracts are obtained primarily from the United States. In 1963, Honduras imported about \$150,000 of beef and pork products. In January-September 1964, this trade totaled almost \$172,000.

During 1963, Honduras imported approximately \$340,000 worth of live cattle, up substantially from the \$100,000 imported in 1962. Practically all of the cattle imported into Honduras are purebred stock and come from the United States. Minor suppliers of live cattle to this market are Guatemala, El Salvador, and Costa Rica. For the January-September 1964 period, live cattle imported into Honduras were valued at about \$220,000.

Export prospects

Beef production in Honduras during 1965 is expected to total about 34 million pounds (carcass weight), up about 2.5 million from 1964. This increase in production, partly the result of measures taken to limit exports of live cattle, should result in more beef being available for export during 1965. The amount of increase in exports will depend on the ability of the Honduran Government to effectively control exports of live cattle. Most observers of this market estimate that exports to the United States, which totaled about 8.6 million pounds (product weight) in 1964, could reach nearly 11.5 million pounds in 1965.

Beef production in Honduras should show a substantial gain over the next 4 or 5 years as a result of the livestock improvement programs, which have already been initiated. However, it is felt that as the economy of the country improves, gains in domestic production will tend to move into domestic rather than export channels. Domestic consumption in Honduras has already been adversely affected by increased exports and in 1964 totaled only about 9 pounds per capita as compared with a per capita consumption rate of 15 pounds in 1957 and 13 pounds in 1960.

WASHINGTON, D. C. 20250

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