



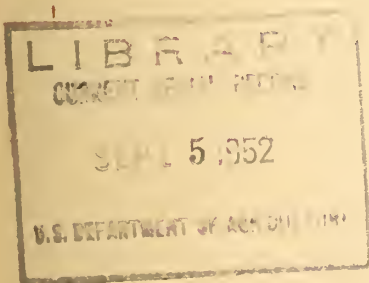
63
62



FOREIGN AGRICULTURE REPORT

OFFICE OF
FOREIGN AGRICULTURAL RELATIONS
U.S. DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C.

BEEF CATTLE INDUSTRY IN
NORTHERN MEXICO AND
PROBABLE EXPORTS TO THE
UNITED STATES



by

FLOYD E. DAVIS
Head, Livestock and Wool Division, O F A R

and

GEORGE J. DIETZ
Agricultural Economist

BEEF CATTLE INDUSTRY IN NORTHERN MEXICO
AND PROBABLE EXPORTS TO THE UNITED STATES

By

Floyd E. Davis
Head, Livestock and Wool Division

and

George J. Dietz
Agricultural Economist

Office of Foreign Agricultural Relations
UNITED STATES DEPARTMENT OF AGRICULTURE
Washington, D.C.



FOREWORD

Northern Mexico, like the southwestern states of this country, is largely a range area of mountains and plateaus. Over the several decades of this century, a livestock industry was developed there which followed much the same pattern as in the bordering U. S. states. By 1946 an annual outturn of about 450,000 head of steers were being exported to the United States for further grazing and feeding. The outbreak of foot-and-mouth disease in December 1946, led to the imposition in that month of a quarantine against the imports of all cloven-hoofed animals and materials likely to be carriers of the virus. At the same time the United States began to participate with the Mexican Government in an extensive program of eradication.

In March 1952 the Secretary of Agriculture of the United States, noting the success of the eradication program, announced that the quarantine would be lifted on September 1, 1952, if no further outbreaks occurred in the interim and conditions continued favorable for the exclusion of the disease. This action naturally raised the question of the current status of the livestock industry in northern Mexico and the probable movement of cattle into the United States after September 1. The need for some measure of the extent and timing of such a movement led to the decision to conduct a survey in the area.

The survey was conducted during May and June by Floyd E. Davis, Head of the Livestock and Wool Division of the Office of Foreign Agricultural Relations, and George J. Dietz, Agricultural Economist in that Division, who had spent nearly 3 years as Assistant Agricultural Attache in Argentina. They travelled by car through the ranch area on both sides of the border, interviewing livestock producers, officials of livestock associations, packing plants, and State Governments. They also spent some time in Mexico, D. F., contacting officials of the National Government of Mexico. Their findings and conclusions are given in this report. This project was conducted under the provisions of the Agricultural Marketing Act of 1946.



Joseph A. Becker, Chief
International Commodities Branch

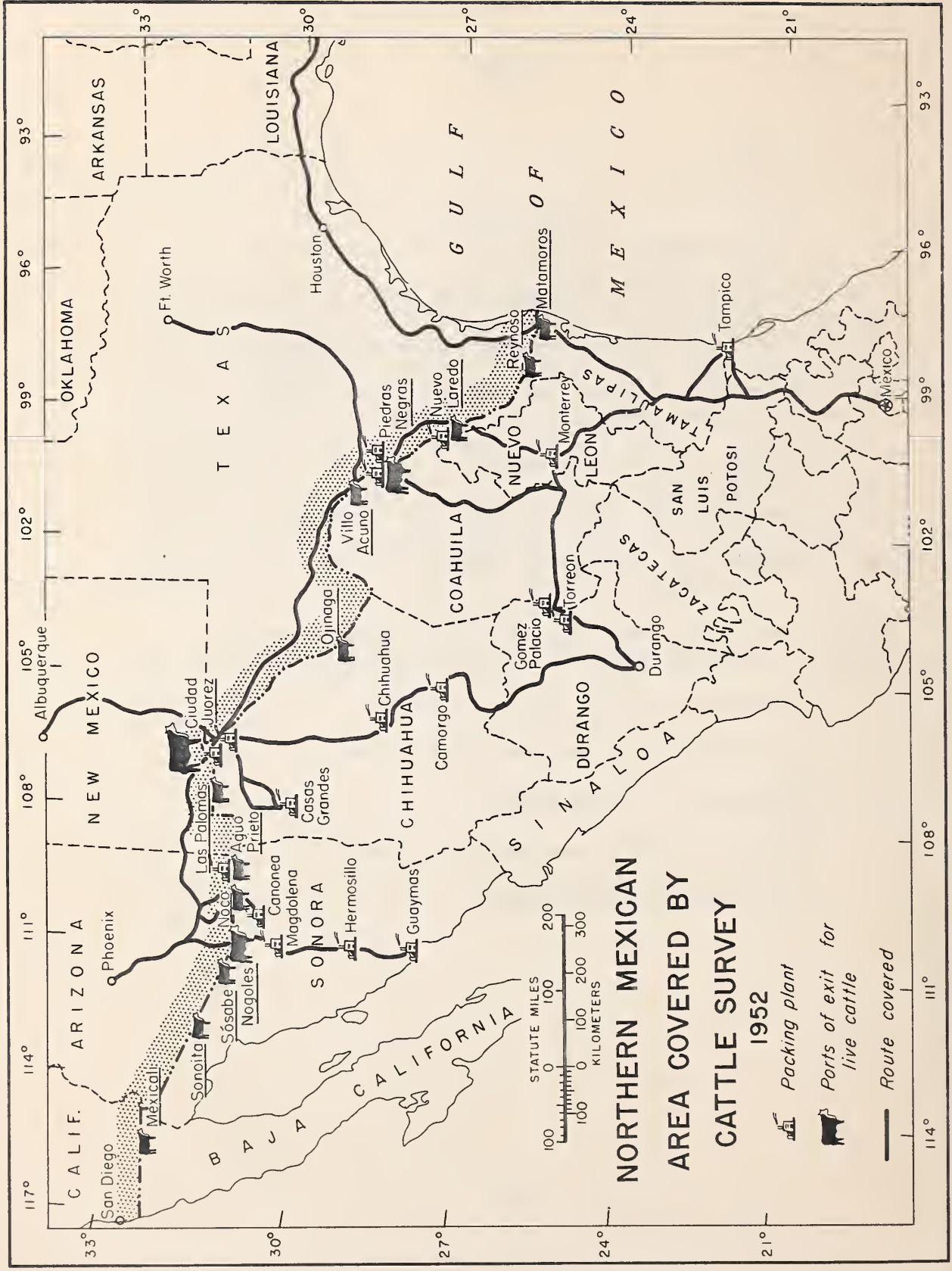
ACKNOWLEDGMENT

The authors wish to acknowledge and express their appreciation for the assistance given them by various officials of the Mexican Government in Mexico City, and by Harold M. Randall, Counselor, and Ana M. Gomez, Assistant Agricultural Attache, American Embassy, Mexico City. Especially do they acknowledge the assistance given by American and Mexican ranchers and officials of cattle organizations during their trip through southwestern United States and northern Mexico. Appreciation is expressed to the Washington staff and to the field representatives of the Agricultural Research Administration, especially the Bureau of Animal Industry, Bureau of Agricultural Economics, and Farm Credit Administration, U. S. Department of Agriculture, for furnishing current information and background material.

The authors appreciated the splendid spirit of cooperation and the sincere interest shown by Americans and Mexicans during the course of the survey.

CONTENTS

Summary	1
Background	4
Cattle Numbers	6
Range Resources and Conditions	7
Trends of Operation on Northern Mexican Ranches	8
Slaughter, Canning, and Packing Facilities in Northern Mexico	10
Prices of Cattle in Mexico	12
United States Import Duties	13
Attitude of Mexican Ranchmen and Government Officials	17
Trends in Government Land Policies Affecting the Livestock Industry	19
Demand for Meat in Mexico	19
Trade Aspects of Mexican Cattle Exports	20
Interest in Cattle Feeding	20
Limitations of Transportation in Mexico	21
Southwestern United States	22



SUMMARY

On the basis of observations made during a 7-week survey which covered Texas, New Mexico, Arizona, all of the northern Mexican range country, and Mexico City, it is estimated that approximately 500,000 head of live cattle from Mexico will enter the United States during the first 12 months after September 1, 1952, the date on which the United States border is to be opened. The actual number exported will, of course, be subject to export quotas established by the Mexican Government.

In the years 1941 to 1946 the United States imported 400,000 to 500,000 head of dutiable cattle annually from Mexico. The bulk of these cattle were calves from 10 to 12 months of age imported during the months February through April. The balance of the movement consisted largely of long yearlings imported during the period November through January. Calves and steers imported were usually thin, and most of them went to pastures for further growth. This source of stocker and feeder cattle was cut off by the outbreak of foot-and-mouth disease in Mexico in late December 1946.

Nearly all live cattle entering the United States have come from either Canada or Mexico. But not since 1941 have cattle from both countries been available simultaneously. Canada prohibited the export of slaughter and feeder cattle to the United States from mid-1942 until mid-1948, and the United States border has been closed to Mexican cattle since late 1946. The United States imported an average of over 307,000 cattle per year from Mexico and approximately 232,000 from Canada during the period 1936-40, an average of over 455,000 head per year from Mexico during 1941-45, and an average of 355,000 head from Canada during 1949-51 (see table 1).

Table 1.- United States: Imports of dutiable cattle from Mexico and Canada, averages 1936-40, 1941-45, and 1949-51

Period	Mexico		Canada	
	Cattle weighing 700 pounds and over ^{1/2}	Cattle weighing less than 700 pounds	Cattle weighing 700 pounds and over ^{1/2}	Cattle weighing less than 700 pounds
	Head	Head	Head	Head
Averages:				
1936-40...	39,340	268,277	141,261	90,920
1941-45...	52,775	402,339	^{2/}	^{2/}
1949-51...	^{3/}	^{3/}	205,541	151,185

^{1/} Includes dairy cattle.

^{2/} Canada ceased to export slaughter and feeder cattle in mid-1942. In 1941, 163,603 head of cattle weighing over 700 pounds were imported from Canada and 72,611 head of cattle weighing less than 700. From 1941 to 1945 an annual average of 29,041 head of dairy cattle were imported from Canada.

^{3/} Mexican cattle were prohibited entry from late December 1946.

Source: Compiled from official statistics of the Bureau of the Census.

Although the number of cattle expected to come from Mexico during the first year is expected to be about the same as for the period prior to 1946, the time of movement and the type of cattle available for export will differ considerably because the cattlemen in northern Mexico have been compelled to shift operations. Drought conditions in some areas, very favorable pasture conditions in others, and anticipation over the past 2 years of the eventual opening of the United States border have all influenced the number and kind of cattle available for export. The cattle population in the exporting area of Mexico is estimated to include about 350,000 head of yearling steers, 300,000 head of 2-year-old steers, and 200,000 head of 3- and 4-year-old steers. Inasmuch as the 1952 calf crop is generally late and is smaller than normal in numbers, it is anticipated that the bulk of this crop will be retained in Mexico for exportation in the late fall of 1953 as long yearlings. There will be some backlog of steers for export during the first 12 months after September 1, but a somewhat smaller number of steers and calves will be available during the second and third years.

As the months of best grazing in northern Mexico are from September through December, cattlemen will have a number of months after September 1 during which they can market their steers before pastures begin to deteriorate. Some ranchers, however, will begin to ship their steers in September, and the movement to the United States is expected to be larger than normal during the fall months.

An appreciable number of the older steers may be retained for slaughter in packing plants in northern Mexico. Meat from these animals is likely to be exported to the United States. Some of the yearling steers may be retained on pasture in northern Mexico for another year inasmuch as the marketing of all of these steers would reduce the total cattle population in northern Mexico below the level desired by Mexicans for stocking their ranges. Pasture and range conditions in northern Mexico will be one of the important factors determining the number of older steers that Mexican cattlemen send to packing plants in northern Mexico and the number they market as feeders in the United States.

In addition to evaluating any shifts in the number of cattle in northern Mexico or in the composition of the herds, the study was directed toward the problem of ascertaining whether future exports from Mexico would be in the form of meat or live cattle. Approximately 42 million pounds of cured boneless beef were exported to the United States in 1951 plus an appreciable quantity in 1952. The rate of movement from November 1951 through June 1952 was equivalent to an annual rate of 100 million pounds, which would be an annual rate of 500,000 head of live animals weighing 600 pounds each.

Some 19 packing plants were established in northern Mexico between 1947 and 1952. These plants appear to have become an integral part of the industry and most of them are expected to continue as an outlet for cows and other animals not suitable for marketing alive in the United States. The condition of these animals would generally favor their slaughter in Mexico. In addition, some steers may be finished sufficiently to be slaughtered to an advantage in Mexican plants and the beef exported to the United States.

Many ranchmen, however, will not be in position to finish their cattle for slaughter and would benefit from selling their cattle for export. Lack of sufficient feed resources to finish Mexican cattle properly for slaughter in Mexico is gradually being recognized by those strongly in favor of building up a meat-packing industry in Mexico. Recent expressions on the part of Mexican officials, indicating that the interests of cattlemen will be given first consideration, have generated a feeling of optimism among cattlemen. The fact remains, however, that Mexican export taxes on meat may be lower than those for live animals in order to aid the packing plants.

As the bulk of the steers from Mexico will be thin and require further grazing, the level of demand in the United States for such cattle from Mexico hinges heavily upon grazing conditions particularly in Texas and the southwestern range states. Demand for steers with some flesh will depend upon favorable prospects for corn and other feed crops in the Middle West and throughout the country. Appreciable numbers of the fleshy steers from the state of Sonora may go to feed in Arizona and California.

Normally a large portion of the Mexican cattle move to the border states of Texas, New Mexico, and Arizona; a sizable number are eventually shipped to the Midwest for fattening and slaughter. Some rain since May has brought slight relief to southwest Texas and adjoining areas which have been dry for the past 2 years. Arizona is in good condition; most of New Mexico received rains in July, and pastures are improving.

BACKGROUND

The cattle industry in northern Mexico in its modern form has followed developments in the United States even though cattle were introduced first into Mexico. A number of the present modern cattle ranches date back to about the turn of the century. By 1913 nearly 400,000 head were being exported to the United States. Movement was practically shut off from 1914 until 1921. Exports rose to about 250,000 head in 1928 and 1929, but the movement was rather small from 1930 to 1934. Demand in the United States was strong following the drought years in the thirties, and from the beginning of 1935 to 1946 the number of live cattle exported to the United States increased. At the same time, favorable prices received for cattle exported to the United States speeded up the introduction of better breeding stock, the building of fences, and the development of watering facilities.

The geographic situation of northern Mexico and transportation difficulties surrounding the movement of slaughter cattle to populated regions in central Mexico have caused the cattle industry in northern Mexico to develop around the shipment of calves and yearlings to the United States. To a considerable extent the movement of these stocker and feeder cattle has offered economic advantages to producers in both countries. The importation of nearly 500,000 calves and yearlings from Mexico each year from 1941 to 1946 obviated maintaining an additional 1.2 million cows in the breeding herd in the United States. It thus was possible to utilize range and feed reserves in the United States directly and more effectively in producing cattle for slaughter. Inadequate feed resources and transportation difficulties hampered the production in Mexico of animals ready for slaughter. Exportation of the male calf crops permitted the use of extensive range land for maintaining cow herds from which an annual calf crop was secured.

Cattlemen in northern Mexico followed the practice of having calves born in the spring. Summer rains brought on pastures which furnished good grazing during the development of the calves. The larger calves averaging 350 to 400 pounds, were exported to the United States in the period January-April as pastures began to dry up. Smaller and slower developing calves were cut out and exported the following fall or early winter when they weighed about 450 to 500 pounds.

On the United States side, the long yearlings which were imported in the fall and early winter remained in the southwestern range states of Texas, New Mexico, and Arizona on pasture until the following May or June when they were either moved to pasture and ranges farther north or were sent to slaughter. The calves, which were sent to the United States from February to April at about 12 months of age, moved more directly into Oklahoma, Arkansas, and Kansas, and to range areas in Colorado, Wyoming, and Montana. These calves were retained on pastures about two seasons before being shipped to market as 2- or 3- year-old steers.

Table 2.--United States: Imports of dutiable cattle from Mexico, by months, annual 1941-46

Month	1941	1942	1943	1944	1945	1946 ^{1/}
	Head	Head	Head	Head	Head	Head
January...	60,960	74,437	25,523	9,104	35,686	35,080
February...	66,370	46,311	183,109	33,780	63,702	47,911
March.....	57,422	27,852	112,044	57,564	63,454	65,632
April.....	74,769	64,282	122,993	60,488	44,780	75,780
May.....	52,676	39,099	75,101	39,260	50,622	49,913
June.....	15,304	24,191	20,761	7,076	12,312	10,452
July.....	33,178	20,114	5,546	1,357	3,282	0
August.....	9,944	6,163	5,686	669	4,854	0
September..	13,316	10,753	10,067	310	7,469	0
October....	45,290	46,488	6,193	9,693	20,948	1,812
November...:	27,234	33,220	11,751	26,894	56,249	52,415
December...:	39,686	61,520	8,580	54,905	72,068	99,327
Total	496,149	2,455,542	587,354	301,100	435,426	438,322

^{1/} Quarantine restrictions were in effect on imports from Mexico from June 5, 1946 until October 18, 1946

^{2/} Annual total revised, but revisions in monthly totals are not available.

Source: Compiled from official statistics of the Bureau of the Census.

Table 3.--Mexico: Cattle exports to the United States

Export point	1939	1940	1941	1942	1943	Average 1939-43
	Number	Number	Number	Number	Number	Number
Agua Prieta.....	52,029	26,926	39,021	47,425	34,778	40,036
Ciudad Juarez...	202,656	153,487	218,722	190,230	153,344	185,288
Matamoros.....	--	--	2,320	2,798	1,877	1,399
Mexicali.....	--	2,194	2,308	95	--	919
Naco.....	37,903	33,668	44,590	32,344	26,866	35,074
Nogales.....	79,445	64,371	69,598	98,872	122,925	87,042
Nuevo Laredo....	27,338	19,679	25,611	23,363	19,448	23,088
Ojinaga.....	26,158	34,682	31,305	37,613	31,287	32,209
Palomas.....	20,506	15,365	22,738	15,692	17,263	18,313
Piedras Negras..:	44,620	43,688	60,444	49,483	46,769	49,041
Reynosa.....	--	719	1,862	1,958	1,645	1,237
San Pedro Roma..:	--	--	1,241	3,458	1,520	1,244
Sasabe.....	14,787	7,183	--	612	--	4,516
Senoyte.....	--	--	10,567	2,448	--	2,543
Tecate.....	--	--	1,020	500	--	304
Villa Acuna.....	14,871	8,128	10,990	11,968	12,261	11,644
Others.....	20,874	7,702	360	--	727	5,934
Total.....	541,187	417,992	542,705	526,559	470,710	499,831

Source: Compiled from official Mexican statistics.

CATTLE NUMBERS

A census in Mexico in 1930 listed 10,083,000 head of cattle and a similar census in 1940 indicated 11,603,000 head. Facts indicate that numbers were definitely on the uptrend after 1940 and reached 15 million by 1947. Notwithstanding the foot-and-mouth disease slaughter program in 1947 and 1948, the vaccine production and testing program, and the canning and curing programs in northern Mexico, there were about 15 million head of cattle in Mexico in mid-1952.

In the six northern Mexican cattle states it is estimated that there were about 5.1 million head of cattle at the beginning of 1947. The number is now placed at 5.2 million head. Chihuahua is the only state where cattle inventories may be appreciably lower than at the beginning of 1947. All the other northern Mexican states have as many or more cattle in 1952 than at the time the United States border was closed.

Since precise statistics are not available on either past or present cattle populations in Mexico, an approximation of inventories, calf crops, and the disposition of cattle was prepared for each of the northern states for the period 1947 through 1952 (see table 4). The best data on cow numbers and calf crops obtainable in the process of the field investigation were used. Information on disposition, particularly the animals marketed through packing plants and sold to the Aftosa Commission, is fairly reliable. Local consumption and death losses are approximations.

Table 4.- Supply and distribution of cattle in northern Mexican states, 1/ January 1, 1947 to the end of 1952

<u>Supply</u>	<u>Thousand head</u>
Beginning inventories January 1, 1947 (inclusive 400 steers remaining for export)	5,100
Calf crops:	
1947	1,200
1948	800
1949	1,000
1950	1,100
1951	1,150
1952	(1,000)
Total calf crops 1947-51 only	<u>5,250</u>
Total supply	<u>10,350</u>
 <u>Distribution</u>	
Local consumption - 6 years (including 1952)	2,400
Vaccine production and testing	171
Meat canning 1947-50	872
Meat, frozen	62
Cured meat (January 1951 through May 1952)	425
Cattle and meat to Mexico City	40
Death losses - 6 years	<u>1,200</u>
Total disposition	<u>5,170</u>
Remaining inventories in fall of 1952 (exclusive of 1952 calf crop)	<u>5,180</u>
1948 and 1949 steers	200
1950 steers	300
1951 yearling steers	350
Breeding herds and other cattle	4,330

1/ States of Sonora, Chihuahua, Coahuila, Durango, Nuevo Leon, and Tamaulipas.

Source: Compiled from official sources.

This balance sheet approach indicates that there are about 5.2 million head of cattle in the northern Mexican states. The number includes 350,000 yearling steers, 300,000 steers from the 1950 calf crop and 200,000 steers from the calf crops of 1949 and earlier years. Such numbers are consistent with opinions of informed cattlemen in northern Mexico.

In the first place, the impression is obtained that for the past 2 years steers have been held back in anticipation of the opening of the United States border. In areas such as Chihuahua the holding back of steers, where necessary on account of drought, has been at the expense of breeding herds. Secondly, a great many cattlemen have indicated that they have on their ranches an equivalent of two calf crops exclusive of 1952 calves. The combined holding of 850,000 head of steers is within the limit of two calf crops expressed by cattlemen.

The marketing of 850,000 head of steers for export alive and through slaughtering plants would result at the end of the 1952 season in inventories of cattle including the current calf crop of about 5.2 million head. This is near the level of cattle numbers of 5.1 million head at the beginning of 1947. It is anticipated that the 1952 calf crop, which was late in arriving, will largely be held over for export beginning in the fall of 1953.

RANGE RESOURCES AND CONDITIONS

The grazing resources available to the cattle industry in northern Mexico are directly influenced by both rainfall and temperature. Seasonal variations in rainfall are greater than those in temperature. The rainy season usually starts in June and ends about October and during these months pastures improve, grass is usually plentiful, and the earthen water holes that depend on adequate rainfall are filled. For several months after the rainy season pastures continue to grow and remain in fair condition as temperatures gradually drop. Cattle in these areas rely directly on pastures as there are no resources for ensilage and very little for making hay.

For the most part, rainfall has been below normal during the past decade in northern Mexico. Some cattle have had to be moved to sections where water and pastures have been more plentiful. It is not uncommon for losses of cattle to reach 30 percent in limited areas because of the severity of drought in late spring and early summer. The calf crops are, of course, very small during such times. Some cottonseed meal and salt have been fed during drought periods in recent years, but this is the exception and not the rule. The states of Chihuahua and Coahuila experienced a rather severe drought in 1951 and early 1952.

In June of this year, however, better than average rainfall has given reason for optimism to the ranchers in the states of Chihuahua and Coahuila. There are indications that the long dry cycle may be breaking up. In contrast, pastures in northern Sonora have been good during the past year. Many cattle have had sufficient pasture to improve their condition appreciably and the

1952 calf crop was estimated at close to 70 percent. This area probably will supply the bulk of yearling exports to the United States in 1953.

TRENDS OF OPERATION ON NORTHERN MEXICAN RANCHES

Cattlemen in northern Mexico found a ready outlet for stocker and feeder calves in the United States from 1935 until December 1946 when the border was closed. At first the United States demand was for stocker cattle to restock in the plains and range areas following severe droughts. Later the demand was accentuated and cattle were imported to utilize the favorable range and feed conditions in the United States and to fill the unusual wartime demand for meat.

The outbreak of foot-and-mouth disease in late 1946 and the subsequent embargo on movement of Mexican cattle into the United States caught the cattlemen in northern Mexico with large breeding herds of cows and no outlet for the annual crop of steer calves. Only a portion of the 1946 calf crop had been marketed when the ban occurred.

In late 1947 meat canning plants began operating in northern Mexico to furnish an outlet for surplus cattle in that region. By 1949, at least 12 plants were in operation. Canning operations continued until early 1950. During this program an estimated 872,000 head were slaughtered in northern Mexico.

At the same time about 62,000 head were slaughtered and exported as frozen carcass meat to Europe, principally to Greece.

Concurrent with the canning and frozen meat programs the Aftosa Commission in Mexico purchased a considerable number of animals for vaccine production and testing purposes. Purchases from the northern Mexican states for this program totalled 28,951 head in 1948, 107,593 head in 1949, and 29,108 head in 1950. A few additional animals were also purchased from Zacatecas, San Luis Potosi, and other central Mexican states.

After completion of the canned meat contracts in early 1950, very few cattle were slaughtered during 1950 in packing plants in northern Mexico. At the end of 1950 the Federal meat inspection service of Mexico was recognized by the United States, and canned and cured meat under certain regulations were admitted entry. Between January 1, 1951 and May 31, 1952, approximately 400,000 head of cattle, mostly cows, were slaughtered in northern Mexico and converted into products that have been, or are to be, marketed in the United States.

Approximately half of the cattle came from the state of Chihuahua alone. About 50,000 head were slaughtered in Coahuila for export of cured beef to the United States. About 96,000 head were slaughtered in Sonora in 1951 and 50,000 head in 1952. The balance were slaughtered in Nuevo Leon and Durango.



Cattle at water hole near Casas Grandes,
Chihuahua.



Good criollo cattle being held for
slaughter at Hermosillo, Sonora.



Hereford heifers on range near
Cananea, Sonora.



Right. Cattle feed on
yucca tops and mesquite
beans in early summer.



Left. Canner criollo-type cattle in slaughter pens.

Right. Drainage water from the Gomez Palacio plant is used to irrigate surrounding alfalfa fields.



Left. Packing plant at Camargo, Chihuahua.



Right. Boning beef for curing.

The disposal programs available to northern Mexican cattlemen in the period 1947-52 forced them to keep the calf crops until 2 or more years of age so as to have adequate weight to justify slaughter. Carrying these animals to an older age tended to increase the inventories on hand and to exert pressure on pasture and range resources. Early in the disposal programs cattlemen began liquidating cow herds. A few reduced their cow herds by one-half or more, but the average reduction was about one-third. A number of cattlemen did not reduce their cow herds to any extent, but sold their heifers and possibly some steers to cattlemen who had sharply reduced foundation herds.

In general, the composition of herds in northern Mexico has shifted. Cows make up a somewhat smaller proportion of the herd, having been replaced by one-, two-, and three-year-old steers. Cattlemen have been holding steers in anticipation of the United States border opening to imports of live cattle and fresh meat. At the same time, heifers from the last three calf crops have gone into the herds to help restore cow numbers.

In some areas, especially in Chihuahua and Coahuila, drought conditions have made it necessary to reduce the cattle inventories on ranches. Cattlemen have met this problem by sending older cows and some heifers to slaughter and retaining as many steers as feasible. Steers have a better chance of surviving since they can traverse longer distances between water and remaining vegetation. Furthermore, every steer that can be retained for export will be worth from three to five times as much as an old cow.

Emphasis on the slaughter of old cows for the production of cured beef during the past 18 months has left pasture for heifers as well as for the steers being held.

SLAUGHTER, CANNING, AND PACKING FACILITIES IN NORTHERN MEXICO

Cattlemen and others directly concerned with the cattle industry in Mexico had given some thought to establishing meat packing plants in northern Mexico prior to 1947. At least three plants had been contemplated in the mid-1940's. The ideas centered around providing an outlet for animals that could not be profitably marketed alive in the United States. In the main these animals were cows being discarded or culled from breeding herds, animals that might otherwise die because of the frequent droughts, and animals of poor type which had little value in the United States for further feeding.

The chief interest in the establishment of packing plants in Mexico centered in the states of Chihuahua and Sonora and to a lesser extent in Coahuila. In Chihuahua, funds had been accumulated by the cattlemen's association by the end of 1946 and plans were underway for establishing a plant.

The sudden outbreak of foot-and-mouth disease in Mexico and the closing of the U. S. market to Mexican cattle stimulated the interest in the establishment of packing plants. The northern Mexican cattlemen were caught in a desperate situation for lack of an outlet for their annual output of stocker and feeder cattle, to say nothing of canner and cutter stock.

Although nearly all the packing plants recently established in northern Mexico have a great deal in common and will be subject to the same general economic forces, individual plants in many cases have one or more unique factors that may mean the difference between continuing operations or closing out entirely. One of the plants, for example, has developed an efficient meat-processing trade which will help to keep the plant operating. In addition, it has developed a thriving ice business during the summer months. Another plant, situated where irrigation is required for crop production, uses its waste water to irrigate alfalfa which can be utilized to fatten cattle. Some plants are well situated for the procurement of cattle for slaughter and for the trucking of refrigerated meat to markets in the United States. Other plants have developed specialized outlets for lean beef for manufacturing purposes in the United States. Such outlets will assist plants to continue to operate even though competition is keen for steers to be exported in live form.

It was recognized soon after the outbreak of foot-and-mouth disease in 1946 that some method of draining off the surplus was necessary if the cattle industry in the northern states was to survive. With considerable technical and some financial assistance from the United States, plans for the construction and development of meat-packing plants in the northern Mexican States were expedited. Contracts to absorb much of the surplus beef as canned beef were made with the Commodity Credit Corporation.

During the past 6 years some 19 plants were constructed in important cattle and transportation centers. The plants operated during the 1947-52 period with varying degrees of efficiency. Some showed a profit and served the local cattle industry well; others, being situated in less favorable locations, did less well.

The bulk of the plants are owned by cattlemen's associations and were originally financed by a tax placed on the sale of cattle, in some cases together with Government loans. Some assistance has been given by the Export-Import Bank, as well as by commercial banks in the United States.

With the projected opening of the border and the possibility of a return to a straight live cattle export business, the future of these plants has been questioned. During 1951 the cured beef trade with the United States amounted to around 50 million pounds and was the source of about (\$17.9 million) to Mexican interests. Although many cattle producers would prefer to return to a live export basis for financial reasons, many realize that the packing plants have a definite place and function in the cattle economy of the northern states. Several of the important plants are now contemplating the development of long-range feeding operations and hope to feed out cattle to compete in U. S. markets. If properly fattened, a substantial portion of the Mexican cattle could dress out to high "commercial" and compete as refrigerated meat in the United States market. The fattening idea is in the formative stage and will be linked with the solution of transportation problems and other important limitations.

The plants observed by the writers were for the most part modern, sanitary, and efficiently operated. During the time of the survey many had curtailed operations seasonally to await developments regarding the opening of the border. Many producers were adopting a "wait and see" policy and were retaining stock.

Observations of most of the plants operating in northern Mexico convince the writers that it is possible for the plants to remain in operation to strengthen the economy of the Mexican cattle industry and the general economy of the country. In all cases, however, it must be stressed that a sound packing industry must depend upon competitive endeavor and not upon restriction and coercion of cattlemen by regulation. Forcing producers to market livestock in Mexico, often at prices which are unsatisfactory even by Mexican standards, could quickly bring about a static or declining cattle industry. The cattle industry would be strengthened if there were a competitive outlet for that class of cattle which could be marketed in the United States and an economic outlet for lower grade cattle through the local Mexican plants. With such plants already in operation and paid for, and with trained labor and an excellent market for byproducts, in Mexico City and other urban outlets some of the operators feel that they can operate a positive program without the protection of an export embargo by the State.

Many political considerations and implications are involved in the question of whether to protect the packing plants or to encourage live exports exclusively. If the plants were forced out of business or operations sharply curtailed, unemployment would be a problem as a substantial group of Mexican workers rely on the plants for their income. The Mexican Government must also be able to guarantee adequate supplies of meat to satisfy domestic needs.

Packing plants are doing an ever-increasing trade in frozen livers, tongues, etc. The trade is currently small, but has good possibilities. Retention of the plants in good working condition and on a stable financial basis is a hedge against disruption of the cattle economy in the future should an outbreak of foot-and-mouth disease occur.

PRICES OF CATTLE IN MEXICO

The increase in the demand for meat by civilians and military, together with the rise in the general price level during the war period, resulted in rising prices for livestock and meat in the United States. This trend was followed in Mexico where the average value of slaughter cattle rose from \$17.56 per head in 1938 to \$32.56 per head in 1943.

When the United States border was closed because of foot-and-mouth disease in late 1946, Mexican stockers averaging 350-450 pounds were bringing about \$30 to \$40 per head. During the 1948-50 embargo period cattle were purchased for vaccine production and testing by the Mexican-American Commission at an average price close to \$40 per head .

During 1948 and early 1949 under the canning program, the U. S. Department of Agriculture, buying through the Commodity Credit Corporation, was paying 28 cents per pound for canned meat. This price was better than the Mexican-American Commission could pay. However, the U.S.D.A. reduced the price of canned meat in the fall of 1949 from 28 cents to 18½ U. S. cents per pound.

In 1951 about 50 million pounds of boneless cured beef were exported to the United States. Based on a weight of around 600 pounds, a 2-year-old steer or cow brought an average price of around \$55 per head. When the border opens in September, cattlemen hope to move steers to the United States for at least two to three times this price. Much of course depends on the "aforo" or export tax placed on the cattle by the Mexican Government. Preliminary information indicates that such taxes will be higher than they were prior to 1947, but probably not excessive.

UNITED STATES IMPORT DUTIES

Imports from Mexico after September 1, 1952 will be subject to a duty of $1\frac{1}{2}$ cents per pound on cattle weighing 700 pounds and over. The duty will be $2\frac{1}{2}$ cents per pound on cattle weighing 200-699 pounds and $1\frac{1}{2}$ cents per pound on cattle under 200 pounds. The termination of the Mexican Trade Agreement on December 31, 1950 resulted in the restoration of the 1930 rate of $2\frac{1}{2}$ cents per pound on the 200-699 pound class. The lower rates on cattle weighing 700 pounds and over and on calves under 200 pounds were negotiated with Canada and are still in effect. Quotas limiting the numbers that can be imported at the $1\frac{1}{2}$ -cent rate are presently suspended. The changes in rates of duties from 1930 to date are indicated in the tables on imports of cattle.

Because of the thin and rough condition of most Mexican cattle, they have usually brought a lower price than United States cattle. It is possible, however, that the price differential will be less in September than it was prior to the border closing in 1946. According to reports, a substantial number of less suitable cattle have been moved to Texas, New Mexico, and Arizona from the gulf areas of the United States, and even from as far east as Florida. In general, western United States feeders prefer good uniform Mexican Herefords to these rougher types and may bid up the Mexican stock. The general price level, however, will depend upon the United States market, carrying capacity, and the need for Mexican cattle on United States ranches and farms.

Table 5 - United States: Imports of dutiable cattle from Mexico, by classes and rate of duty applicable, annual 1930-35 1/

Year	Cattle weighing 700 pounds and over		Cattle weighing less than 700 pounds		Source
	Imports (head)	Tariff rate (cents per lb.)	Imports (head)	Tariff rate (cents per lb.)	
1930					
To June 17	490	2.0	3/150,246	1.5	1922 Tariff, par. 701
After June 17	45	3.0	20,178	2.5	1930 Tariff, par. 701
Total	535		170,424		
1931	749	3.0	65,134	2.5	
1932	335	3.0	89,078	2.5	
1933	44	3.0	62,281	2.5	1930 Tariff, par. 701
1934	650	3.0	55,203	2.5	
1935	8,622	3.0	242,468	2.5	

1/ 1930: general imports; 1931-35: imports for consumption.

2/ Cattle weighing 1050 pounds and over.

3/ Cattle weighing less than 1050 pounds.

Source: Compiled from Foreign Commerce and Navigation of the United States, and U. S. Import duties, U. S. Tariff Commission.

Table 6 - United States: Imports of dutiable cattle from Mexico by classes and rate of duty applicable, annual 1936-38

Cattle weighing 700 pounds and over		Cattle weighing less than 700 pounds	
Dairy		Other	
Year	Imports (head)	Imports (head)	Imports (head)
	lb. within quota 1/)	lb. within quota 2/)	lb. within quota 3/)
	Tariff rate (cents per head)	Tariff rate (cents per head)	Tariff rate (cents per head)
	Source		
1936	0	22,190	140,241
1937	0	24,792	172,717
1938	0	49,770	234,030

1/ Quota of 20,000 head from all countries allowed entry at lower rate; in excess of quota, rate of duty was 3 cents per pound.

2/ Quota of 155,799 head from all countries allowed entry at lower rate; in excess of quota, the rate of duty was 3 cents per pound.

3/ Quota of 51,933 head from all countries allowed entry at lower rate; in excess of quota, the rate of duty was 2.5 cents per pound.

Source: Compiled from Foreign Commerce and Navigation of the United States, and U. S. Import Duties, U. S. Tariff Commission.

Table 7 - United States: Imports of dutiable cattle from Mexico, by classes, and rate of duty applicable, annual 1939-46

Year	Cattle weighing 700 pounds and over		Cattle weighing less than 700 pounds		Source
	Dairy	Other	Under 200 pounds	200-699 pounds	
	Tariff rate:	Tariff rate:	Tariff rate:	Tariff rate:	
	(cents per lb.)	(cents per lb. within : quota 1/)	(cents per lb. within : quota 2/)	(cents per lb.)	
1939	0	1.5	33,259	390,074	Canada, Trade Agreement, Jan. 1, 1939.
1940	0	1.5	29,921	336,207	
1941	0	1.5	39,776	402,120	
1942	57	1.5	13,503	377,407	
1943 1/	170	1.5	8,283	501,592	
1944	0	1.5	310	275,259	Mexico, Trade Agreement, Jan. 30, 1943
1945	62	1.5	1,315	392,132	
1946	1,348	1.5	703	410,552	
1952	--	1.5	--	--	Mexican Trade Agreement terminated Dec. 31, 1950.

1/ Quota of 225,000 head (not exceeding 60,000 head in any calendar quarter year) from all countries allowed entry at lower rate; in excess of quota, the rate of duty was 3 cents per pound.
 2/ Quota of 100,000 head from all countries allowed entry at lower rate; in excess of quota, the rate of duty was 2.5 cents per pound.

3/ Effective January 30, 1943, the limitation was removed on the number of all cattle that could enter at the reduced rate during the national emergency. As of June 14, 1943, and retroactive to January 1, 1943, the Mexican Government restricted exports of live cattle to a maximum of 500,000 head annually.

Source: Compiled from Foreign Commerce and Navigation of the United States, and U. S. Import Duties, U. S. Tariff Commission.

ATTITUDE OF MEXICAN RANCHMEN AND GOVERNMENT OFFICIALS

As a group the Cattlemen's Unions in the various northern Mexican states favor the renewal of live cattle exports to the United States; many believe however, that the packinghouses can, continue to contribute to the development of the cattle industry. In Chihuahua, Durango, Coahuila, and a part of Sonora everyone including the packing interests would like to see the border open to live cattle exports. Except in Sonora where packers would like to keep cattle in Mexico for slaughter and export the meat, **over whelming sentiment of those** connected with the packinghouses is that mixed exports of live cattle and meat are the best course to follow. Most ranchmen and packers favor the export of steers and retention of the females, and believe that the plants could operate on old cows and bulls and whatever cattle they could buy competitively.

The consensus indicates that most ranches in northern Mexico that have improved stock are now carrying at least two calf crops. But as the number of cows is down somewhat, however, the number of steers available for export will be less than twice the 1941-45 level. Many growers are of the opinion that the future supply of meat for domestic consumers in Mexico, as well as a substantial exportable surplus, can best be assured by imposing as few restrictions as possible and thus giving cattlemen an optimistic outlook. Cattlemen seem willing to allow a portion of their output of cattle and meat to go to domestic consumers at a price below the level obtained in the United States. If domestic demand is satisfied at a fair price thus permitting a program of low export tax and no restrictions on exports except for female stock, the cattle industry in northern Mexico should develop and expand.

Most Mexican cattle and meat interests are deeply appreciative of the financial and technical assistance rendered by the United States in clearing up the outbreak of foot-and-mouth disease, and also of the assistance furnished by the CCC. Discussions with Mexican officials indicated that they have progressed towards the idea that a substantial portion of the cattle for export should be permitted to be exported alive. They feel that the export fees on meat should perhaps be lower than on cattle to permit the continuation of the packing plants, but they believe that in the future the plants will be primarily an outlet for old cows and will serve to assure cattlemen of an outlet for cattle should exports of live cattle again be interrupted.

Mexican officials were unanimous in feeling that export quotas and regulations should be maintained even though the quotas were not restrictive. They recognized that, with a prosperous cattle industry, northern Mexico would serve as a meat reservoir to be tapped by the domestic market in time of emergency. Any attempt to hold northern Mexican meat as a club over the heads of central Mexican cattlemen will not bring out the production possible in areas normally supplying Mexico City. Permitting the export of the surplus in northern Mexico will encourage production in both places.

Acute shortages of meat in Mexico City during the past few years, especially in times of drought, have caused many Mexican newspapers to condemn the export of meat to the United States and other destinations. Such criticism has naturally played a part in governmental considerations regarding the export of live cattle. The fact remains that transportation difficulties limit the possibilities of moving much meat or live cattle to Mexico City from northern areas. Because of the meat shortages in Mexico City cattlemen whose ranches are located at the extreme southern end of the northern cattle zones have been forced to abandon plans to move cattle to the United States and have had to move cattle to Mexico City. The northern Huasteca area is a good example of this. The slaughter and freezing plant in Tampico, which had previously been killing for export, was closed by the government and cattle have been routed to the Mexico City market. Assuming good weather conditions the central Mexican cattle zones should easily provide adequate beef for consumption in Mexico City.

TRENDS IN GOVERNMENT LAND POLICIES AFFECTING THE LIVESTOCK INDUSTRY

Mexican governmental land policies and regulations, especially the distribution of agricultural land to ejidos (communal-type organizations of small farmers) from 1915 until 1942, have tended to discourage cattlemen from making ranch improvements. Basically the regulations discouraged the use of arable land for the production of improved forage crops for supplemental feeding. As a result of this policy the death losses of cattle have been more severe during periods of drought than they would have been if some feed reserves had been on hand. In addition, the policy has prevented the development of feed resources for finishing cattle for market.

Beginning on July 28, 1942 the Mexican Government made it possible for ranch owners to be granted "decrees of inaffectibility," thereby protecting against agrarian encroachment on land that is suitable predominately for livestock purposes. Some progress in making ranch improvement has been possible under such decrees. More recently, the Mexican Secretary of Agriculture and Animal Industry announced a plan for rehabilitating Mexico's livestock industry which provided legal assurances that property of a livestock raiser will be respected so that he will feel free to plant new pastures, dig wells, and make general improvements.

DEMAND FOR MEAT IN MEXICO

One of the most important factors influencing the return of Mexico to the export of live cattle is the anticipated effect upon the price of meat to Mexican consumers. Considerable pressure has been brought to bear on Mexican officials to hold down domestic meat prices. It is true, however, that the northern Mexican cattle areas have a large natural surplus above local needs. Marketing of this surplus abroad would necessarily influence domestic price levels. There is currently a meat shortage in many northern urban areas, especially the city of Monterrey, as cattlemen are retaining stock in this area for possible export to the United States. This shortage is largely seasonal and should be overcome with the improvement of pastures during the rainy season.

It is calculated by one of the important cattle associations in Mexico that around 2.5 million cattle are needed annually for domestic consumption. According to the latest data available, per capita consumption is placed around 40 pounds of all meat, of which around 30 pounds is beef. The Mexican preference is towards lean beef which is usually cut up and mixed with beans or other foods. Beef is marketed fresh, with little sanitary considerations. There has been some effort in recent years to educate Mexican urban populations towards standard cuts of beef, but progress has been slow.

TRADE ASPECTS OF MEXICAN CATTLE EXPORTS

Considerable mutual benefits are to be derived from United States Mexican cattle trade. A great proportion of the equipment and supplies used on Mexican ranches (e.g., insecticides, dip preparations, fencing materials, pumping and watering equipment) is manufactured and sold by United States companies. Inasmuch as the only source of income to northern Mexican ranchers is returns from the sale of cattle, there has been a marked slowdown in trade since the closing of the border in 1946. Despite the fact that many Mexican ranchers have continued to improve their holdings by putting in new water holes and additional fencing, some have been forced to cut back on improvements until such a time as the border reopens or a satisfactory outlet is developed for their cattle. Credit grants by United States banking interests to Mexican ranchers have had to be extended in many cases.

The importation of bulls from the United States has been sharply reduced since the closing of the border in 1946. In 1942 around 2,400 bulls were imported from the United States by cattlemen in the State of Chihuahua alone. The outbreak of foot-and-mouth disease reduced imports in 1947 to 133 head, and only 71 were reported for 1951. Accordingly, with the reopening of the border, considerable demand for United States bulls will again be in evidence.

INTEREST IN CATTLE FEEDING

There is a considerable interest in developing a feeding industry in northern Mexico. Resources and facilities for feeding are at present quite limited, but the potential is great. With the greatly expanded area sown to cotton, a substantial yearly surplus of cottonseed meal is available. Much has been exported to the United States, but a portion has been fed to well-bred cattle by Mexican packing plants on an experimental basis with highly satisfactory results.

The States of Sonora and Chihuahua have taken the lead in plans for developing feeding operations. Sonora, being located adjacent to Arizona, will expand its feed crops along the lines of methods and types developed in Arizona. It is difficult to assess at this time just how rapidly and completely present plans can be carried out. It is true, however, that with the good Hereford breeding available on many northern Mexican ranches a quality of beef as high as "good" can be developed. Land that may be devoted to cattle feed is available, but with the lack of a profitable market for cattle there has been no price incentive to finish stock. With the opening of the border to live cattle and refrigerated beef, prices to bring such an incentive can be easily obtained. It is logical to believe that if Mexican packers develop a fattening industry, they can compete for domestic cattle on the same basis as American buyers. In addition, Mexican labor would benefit, and the packing plants could utilize the byproducts.

The establishment of an effective and efficient feeding industry is a long-time speculative proposition in that the United States market could be removed at any time by import restrictions imposed by the United States Government. However, meat is one of the strongest commodities on the world market and there are many outlets for finished refrigerated beef.

There will be an immediate but minor export of fresh beef to border cities in the United States when the import ban is lifted. Mexican refrigeration facilities are vastly improved, and holding space is being expanded.

The west coast State of Sonora intends to export refrigerated beef by ship to United States markets, and plans to move refrigerated beef to the Los Angeles market are being formulated.

LIMITATIONS OF TRANSPORTATION IN MEXICO

Transportation facilities have been widely expanded in Mexico during the past decade, but are still inadequate as compared with United States standards. The lack of transportation virtually isolates the northern Mexican livestock industry from the remainder of Mexico and makes it dependent to a large extent upon the United States as an outlet for surplus beef. Several attempts to ship live cattle to Mexico City from northern areas have failed as a great portion of the stock have died en route. Trial shipments of refrigerated or chilled beef have also been disappointing. Rail tie-ups and long periods of standing in the sun have not been conducive to keeping meat in good condition. Frozen livers, tongues, and other specialty items, however, have been successfully transported to the Mexico City market.

Rail facilities, although limited and inefficient, are superior to trucking in most localities. Roads and trucking facilities are being improved, but they are still relatively undeveloped and have not been of much assistance in moving cattle to markets. On the other hand, trucks can be used to transport meat to the United States as most packing plants are situated near or on arterial highways connecting with the United States.

Transportation difficulties limit the development of a feeding and fattening industry in northern Mexico. If steers have to be moved long distances by foot, considerable finish is lost. Expansion of rail and of highway facilities will be essential to the development of fattening programs and slaughter plans.

The lack of adequate rail and transport facilities during the past years, especially previous to the closing of the border, has been a factor in setting the pattern of marketing of calves and yearling steers. Such cattle have proven to be more adaptable, and more suitable for trailing long distances and moving under unfavorable conditions.

SOUTHWESTERN UNITED STATES 1/

Texas

At the beginning of 1952 there were within 3 percent as many cattle in Texas as in 1945 and about 10 percent more than in 1950. The distribution of cattle in the state has changed, however, as numbers are less in southwest Texas and greater in the farming areas of east and northeast Texas. There are only about 60 percent as many cattle in southwest Texas as in 1945. Numbers in this area dropped off sharply from 1945 to 1949, picked up slightly in 1950, but dropped again during the past 18 months. The area south and west from Uvalde and San Angelo has been dry for 2 years or more. Many of the ranchers have fed their cows from 4 to 7 months in each of the past two seasons in order to get a calf crop.

One of the other developments in west Texas in recent years has been the exodus of ranchers from this area to more humid sections. A number have sold out and gone to east Texas, Arkansas, Louisiana, Mississippi, Tennessee and farther east. Some have kept holdings but have also leased or bought land in other areas. Pasture and range conditions have unquestionably been bad in southwestern Texas. Scattered rain during May, June and July, however, improved the outlook.

Texas ranchers almost unanimously favor the opening of the border provided foot-and-mouth disease no longer exists in Mexico. They are expecting importations to be mainly steers rather than calves and do not think that the United States market will be adversely affected.

New Mexico

In New Mexico the situation was similar to that of western Texas. Dry conditions have existed for a number of years, but ranchers were convinced that the pastures would recover quickly with substantial rains. With the present understocking in New Mexico, a number of ranchers are eyeing Mexico as a source of cattle when pastures do develop. On the other hand, ranchmen with a 1952 calf crop to sell have some apprehension about the United States market for calves this fall and thought Mexican steers might further depress the market. Some felt that feeders might by-pass New Mexican ranches to buy Mexican cattle, especially if the United States market weakens further.

1/ Arnold V. Nordquist, Bureau of Agricultural Economics, Washington, D. C., and V. C. Childs, Fred Daniels, and Evan V. Jones of the Texas, New Mexico, and Arizona offices of BAE rendered valuable advice and information in this section of the report.

As New Mexico is a range state, its cattle industry would be indirectly in competition with the Mexican cattle industry. Present cattle numbers in New Mexico are down somewhat from the 1944 peak as it has been dry for several years, especially in the eastern part of the State. Numbers were off in the eastern and southern parts of the State which adjoin areas that have been dry in western Texas and in Chihuahua.

Although New Mexico has not had rain and snowfall as has Arizona, the western part of the State, particularly the northwest has good pasture. Several ranchers believed that if sufficient rains came, any influx of cattle from Mexico would not likely have any serious effect in New Mexico. Many of the feeder calf producers have established outlets for their calves and they move mostly to the same people each year. The corn crop and other feed conditions in the Middle West would be likely to have more effect upon the demand than would the availability of Mexican cattle. Ranchmen were not expecting the unusual high price condition of 1951 to be repeated and talk was of a feeder calf market about 8 cents below the 1951 level.

Arizona

For the 10-year period 1941-50 Arizona had an average of 908,000 head of cattle on farms and ranches on January 1, shipped in an average of 159,000 head, and shipped out an average of 361,000 head. It slaughtered an average of 95,000 head for the period 1946-50. Of in-shipments, which averaged 161,000 head for the years 1941-45, 70 percent came from Mexico.

There are extensive feeding operations in the 4 counties of Maricopa, Pinal, Yuma and Pima, with the bulk situated around Phoenix in Maricopa County. Shipments into Arizona jumped to 310,000 head in 1951, with an appreciable number to go on feed in these 4 counties. The balance of the State is largely devoted to ranching and in 1950 had about 500,000 head of cattle, or about 60 percent of the total cattle in the state.

The 1950 calf crop amounted to about 340,000 head, of which about 100,000 were shipped out as calves, 50,000 as heifers, and about 100,000 retained for breeding.

Arizona range feed conditions declined in July with the drying of southern ranges, but feed conditions remain above average. Cattle showed a slight shrinking during July but are in good condition.

