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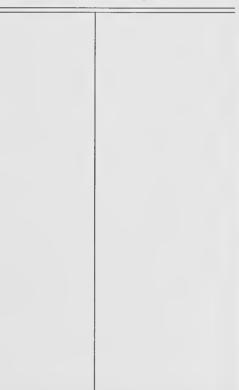
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Jerry E. Fruin, Daniel W. Halbach, and Lowell D. Hill

North Central Regional Research Bulletin 326 Southern Cooperative Series Bulletin 349 University of Illinois Bulletin 793

Agricultural Experiment Station College of Agriculture University of Illinois at Urbana-Champaign ţ

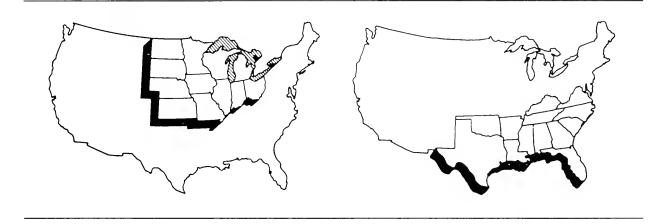


# **Corn Movements in the United States**

Interregional Flow Patterns and Transportation Requirements in 1985

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North Central Regional Research Bulletin 326 Southern Cooperative Series Bulletin 349 University of Illinois Bulletin 793 Illinois Agricultural Experiment Station Urbana-Champaign, Illinois



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September, 1990

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This bulletin is one in a series of North Central and Southern Cooperative bulletins. It represents a contribution to North Central Project NC-137, "Effect of Changes in Transportation on Performance of the U.S. Agricultural Transporation System," and to Southern Regional Project S-176, "Interregional Marketing Systems for Grains and Soybeans." The Illinois Agricultural Experiment Station is the publishing station. Requests for copies of this bulletin may be sent to Office of Agricultural Communications and Education, 67 Mumford Hall, 1301 West Gregory Street, University of Illinois, Urbana, Illinois 61801.

#### Abstract

Information about the origin, destination, and mode of transport in marketing grain is often useful in making policy and investment decisions related to grain. The data and analyses presented in this publication were developed to aid in making these policy and investment decisions. This bulletin contains the results of a nationwide study to obtain the volumes of corn moved by truck, rail, and water among destinations in 42 states during 1985. The study was designed to update a similar survey conducted in 1977. This bulletin contains a description of the findings of the 1985 survey and an analysis of the changes that have occurred between the 1977 survey and 1985.

# Preface

This bulletin contains the results of nationwide research to obtain the volumes of corn moved between U.S. origins and destinations using various transport modes in 1985. Other publications in this series provide similar information for soybeans, sorghum, wheat, and oats. It updates a similar survey conducted in 1977.

During 1986, members of two university research committees located in 21 states conducted surveys to gather data about the origin and destination of wheat, corn, soybeans, sorghum, and I oats in each of their states. In another 12 states, private consultants or university faculty at land grant institutions in the states administered the survey under contracts. Finally, data about grain and soybean movement in an additional nine states were gathered using a combination of secondary data, neighboring state surveys, and interviews with managers of major firms and state agricultural officials. The resulting database contained information from 42 states for the year 1985.

The industry surveys were coordinated in the Department of Agricultural Economics at the University of Illinois at Champaign-Urbana. The data were summarized, verified, and reconciled under the supervision of Joseph Vercimak, University of Illinois, and Dr. Dean Baldwin, Ohio State University. The success of this research project is due to the cooperation of thousands of grain marketing firms and the efforts of researchers around the United States.

The research was partially funded by the Federal Railroad Administration under contract No. . DTFR 53-84-C-00036, the Agricultural Marketing Service, USDA; the Agricultural Cooperative Service, USDA; the Illinois Department of Agriculture and the Soo Line Railroad. Administration of the grant funds was coordinated by Joseph E. Vercimak. The research is a contribution to regional research projects S-176, "Effect of Changes in Marketing Systems for Grains and Soybeans" and NC-137, "Effect of Changes in Transportation on Performance of the U.S. Agricultural Transportation System."

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### Purpose of the Study

#### Introduction

Maintaining our competitive edge in world corn markets is an objective frequently expressed by corn farmers, merchandisers, processors, exporters, association groups and government officials. Among the many different factors that contribute to our ability to maintain that competitive edge is having an efficient flow of corn from production regions to domestic destinations and export ports. This efficient flow of corn can be achieved with decisions based on information about corn shipping patterns that will enable corn industry participants to improve market performance. Such information may also improve decisions about investments in port facilities, rail, truck and barge services, elevator and processor facilities, and farm production.

Although data on the quantities of corn shipped from each port and on inland waterways are available, little data exists to match origins with destinations and to identify modes of transportation. The first comprehensive national study of grain movements was completed for the 1977 calendar year (Leath, Hill and Fuller, 1981). This bulletin updates the earlier study by reporting corn shipping and receiving patterns for 1985.

#### **Objectives of the Study**

The objectives of this study were:

(1) Identify the quantity of corn shipped among various state, regional and export locations.

(2) Determine the extent to which various transportation modes were employed in the movement of corn in the United States.

(3) Compare the 1977 and 1985 patterns of shipments and modes of transport.

### Methodology

Grain flow data were collected for the 1985 calendar year primarily through personal interviews with representatives of grain handling, storage, and processing firms. These firms included country elevators, subterminal elevators, terminal elevators, feed manufacturers, export elevators, commercial feedlots, poultry operations, processors, and millers. Representatives in each of the states surveyed were responsible for drawing a statewide sample and conducting the interviews. All 33 major producing and consuming states were included in the survey. This was accomplished by using members of two regional grain marketing and transportation committees at land-grant institutions in the states and by contracting with individuals in those grain producing states that were not represented on the regional committees. An additional nine states considered to be significant grain producers were added using secondary data and selected interviews.

In addition, information was obtained from the Interstate Commerce Commission about volumes shipped by rail and the U.S. Army Corps of Engineers (COE) about volumes shipped by barge.

#### Sampling Method

In those categories where the firms were few in number (such as processors), all of the firms were included in the survey. In those categories where the number of firms was too large for complete enumeration with available resources, the researchers used a stratified sampling technique. The stratified sample data were then expanded using multipliers to yield estimates of totals for each state.

For example, the stratified technique was used with inland grain elevators. The sampling of these elevators in each state was carried out by listing elevators in descending order of storage capacity. Then, starting with those having the largest capacity, firms with successively smaller capacities were added to the sample until the total storage capacity of firms in the sample equalled 25 percent of the elevator storage in the state. A random sample of the remaining firms was then obtained, with not less than 10 percent of all firms in each category included. Additional stratification was used in states with large numbers of firms.

Some states derived samples using plants rather than firms. The research methodology allowed sampling by plant or firm provided that elevator capacity was adequately represented in the sample and the samples could be expanded to represent total grain transported. Some states used a complete enumeration of all firms.

River elevators were sampled at a rate of not less than 50 percent. Feed firms were surveyed from the largest downward until 10 percent of the total capacity was surveyed. A random sample was taken from the remaining firms. Integrated firms such as feedlots and poultry operations were sampled at the rate of not less than 50 percent. For processing firms, the sampling rate was usually 100 percent since the number of firms in each state was relatively small.

The data provided for 1985 were less complete than those provided for 1977 because some major processors and grain handlers refused to provide volume data by origin and destination. They gave a variety reasons for not providing the data.

To compensate for the lack of usable data from small firms, volume statistics from a firm of similar size and geographic location selected at random were included when available. For larger elevators or processors who did not supply data, volumes and flows were estimated from secondary sources or from the interviewers' prior knowledge of the firms. The estimates were then validated by the grain marketing specialist in each state based on his/her knowledge of grain movements and price relationships in the state.

#### Procedure

Each of the grain handlers and processors interviewed provided the same type of information: the volume, origin, and mode of transport for all grain received at and shipped. from their facilities. Data were coded using a consistent format and sent to the University of Illinois for processing. Processing involved verifying the data and summarizing state totals that would be used in reconciling flows. The data were then sent to Ohio State University where the estimates of quantities transported between each origin and destination as reported by the shipping states were reconciled with the estimates reported by the receiving states. Responsibility for integrating these data and generating the data tables for the five commodities was distributed among four universities: corn at the University of Minnesota, soybeans and oats at Ohio State University, wheat at the University of Kentucky, and sorghum at the University of Illinois at Urbana-Champaign.

Transport information was also obtained from the Interstate Commerce Commission about rail shipments (the Waybill sample), and from the U.S. Army Corps of Engineers about barge shipments (the COE sample).

After the survey data were compiled and tabulated, representatives from the major receiving and shipping states met to reconcile differences among the three sources of volume information: (1) the survey data from the receiving states, (2) the survey data from the shipping states, and (3) secondary data including the Waybill sample from the Interstate Commerce Commission and the complete enumeration of all barge movements recorded on the data tapes by the U.S. Army Corps of Engineers (COE).

The variable sampling rate for some types of shipments included in the Waybill sample gives rise to potential errors when the data are summarized on a state or sub-state basis. Records of total volume of barge shipments and receipts in the COE data tapes were quite accurate but the tapes did not always identify ultimate origins and destinations when barges were transhipped or destinations were changed in transit.

Truck data were available only from the survey. Shipments from farms to elevators were identified only through records of elevator receipts. Truck shipments across state lines were especially difficult to verify since neither truckers nor farmers were included in the survey.

A final verification process was then undertaken using secondary data about movements into or out of each state, and the estimate of "exportable surplus" for each state. A grain marketing specialist from each state university in the regional committee calculated the surplus or deficit in his/her state in the following way: the estimate of the total amount of corn used for seed and processing during calendar year 1985 was subtracted from the estimate of the amount of corn produced during 1985. The remainder was then adjusted by the amount of increase or decrease in inventory during the year. The resulting figure was accepted as an estimate of the surplus available for export or the deficit to be filled by imports from other states. Because volume processed in each state was based on estimates, the numbers were not expected to match reconciled flows exactly. However, these data provided additonal information from which to judge the reasonableness of receipts and shipment data from the various sources (Wailes and Vercimak, 1989).

These comparisons among the various data sources increased the confidence in the accuracy of estimates based on the less-than-complete samples we obtained from the population of all firms handling corn.

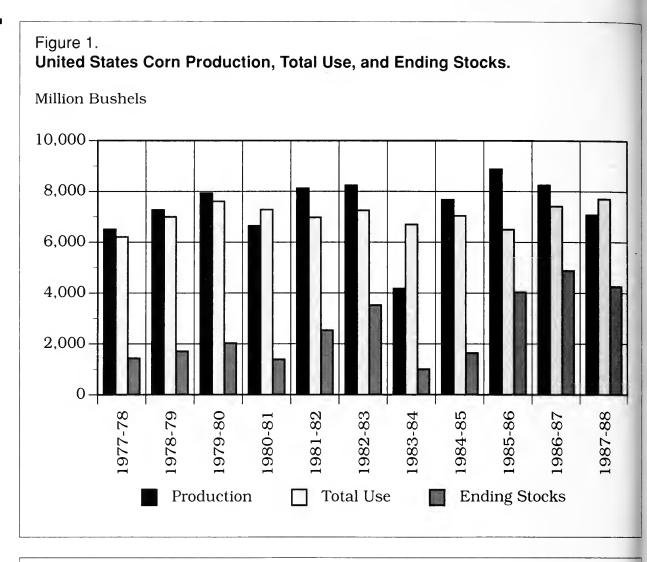
Finally, the logic and consistency of each flow summary contained in these reports was checked by the representative who organized and conducted the survey in each state.

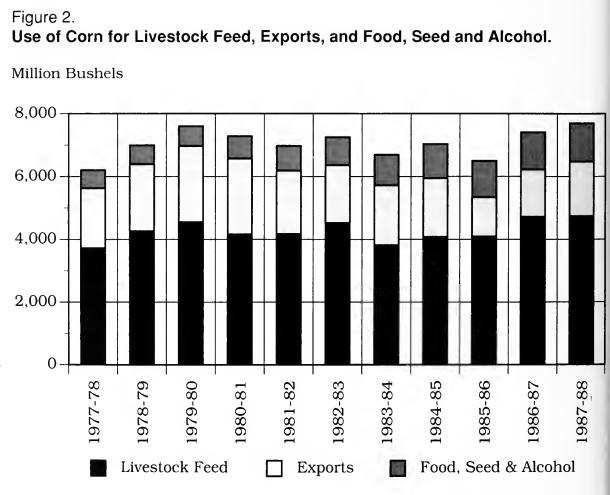
### Production and Utilization

Corn is the most important crop in the United States, both in volume and cash receipts to farmers. Production in recent years has varied from a low of 4.2 billion bushels in 1983 to a high of 8.9 billion bushels in 1985. The average annual production from 1977 to 1986 was 7.4 billion bushels. The record 1985 crop increased United States ending stocks by almost 2.4 billion bushels, while the below average 1977 crop of 6.5 billion bushels increased the ending stocks by a negligible 200 million bushels (Figure 1). The lower exports and domestic use in 1985 resulted in an increase in inventory, which influenced transportation requirements.

Corn production has been increasing steadily since 1977, except for the drought years of 1980 and 1983. However, the total disappearance of 6.5 billion bushels of corn in 1985, including exports, was lower than for any year since 1977. Figure 2 shows livestock feed use was about average in 1985. Food and industrial use has increased every year from 1977 to 1985. Usage in 1985, was 1.1 billion bushels, twice that of 1977. The decline in total usage of corn in the mid-1980s resulted from the dramatic drop in exports.

Although corn is produced in almost every state, production remains concentrated in and near the traditional Corn Belt (Figure 3). In 1985 as in 1977, six states (Iowa, Illinois, Nebraska, Indiana, Minnesota, and Ohio) produced about 70 percent of the United States corn crop. In 1985, these states accounted for almost 75 percent of the interstate grain shipments and over 79 percent of exports (Table 1). However, in 1977, the six states were even more important as corn shippers, accounting for over 85 percent of interstate corn shipments and almost 86 percent of the shipments to export ports. Unlike 1985, in

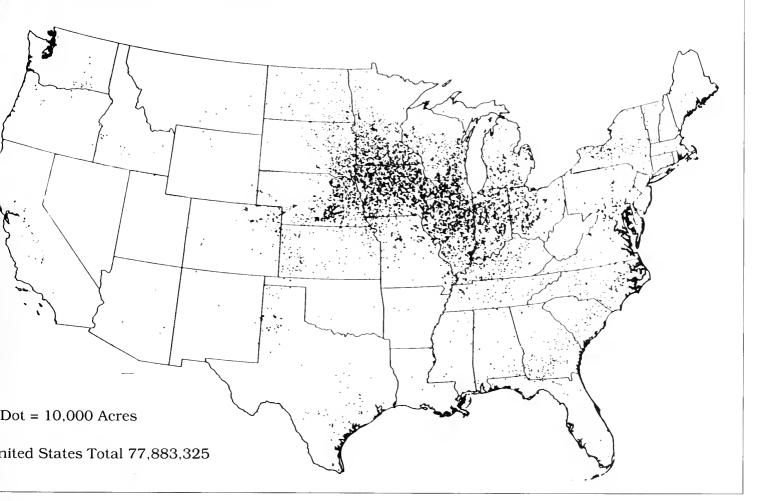




1977 corn usage volume was nearly the same as supply volume so that changes in ending stocks were negligible.

Along with the decline in the proportion of corn shipped from the six states in total, there has been a change in volume shipped by Illinois and Iowa, apparently because of changes in international demand. In 1985, Illinois and Iowa alone accounted for over 36 percent of the corn production and interstate shipments and about 40 percent of exports. In 1977, Illinois and Iowa accounted for over 35.1 percent of production, but over 54 percent of United States exports.

gure 3. 382 Corn Harvested for All Purposes.



# Analysis of Shipments and Receipts

#### **Interstate Shipments**

During 1985, nearly 3.3 billion bushels of corn, 37 percent of the year's production, were moved across state lines. Over 1.55 billion bushels were shipped across state lines to domestic end users and over 1.7 billion bushels were exported. Six states, Illinois, Nebraska, Iowa, Indiana, Minnesota, and Ohio, accounted for 75 percent of the out-ofstate shipments and 79.1 percent of shipments to export ports (Table 1).

Trucks accounted for 693 million bushels of interstate movement in 1985, with 98 million bushels going to export ports and 595 million bushels consumed in domestic use. Rail accounted for 1.538 billion bushels of interstate shipments, with 668 million bushels going to export ports and 870 million bushels consumed in domestic use. Barges accounted for 1.052 billion bushels of interstate shipments, with 959 million bushels going to export ports and 93 million bushels consumed in domestic use (Table 2).

#### **Interstate Receipts**

Receipts of corn from other states reflect movements to feed deficit areas, processing plants, or transshipment centers (Table 3). The largest receipts were in Alabama, Arkansas, Georgia, Illinois, Tennessee, and Texas. Except for Illinois, a major processing state, these states were generally feed deficit areas. Rail moved 55.8 percent of the interstate corn receipts, trucks moved 38.2 percent, and barges moved only 6.0 percent. Alabama and Tennessee received the largest volumes of barge shipments, with 87.3 percent of all interstate (non-port) receipts by barge. Illinois received the largest truck volume of any state — 64.87 million bushels. This vol-

Table 1.	
1985 Production of Corn by State and Out-of-State Shipments by Mode of Transpor	rt.

		Мос	le of Transport	ation			
State	Total Production	Truck	Truck Rail Barge		Total Shipped	Total Exported	
		thou	usands of bush	nels			
Iowa	1,707,300	64,699	183,607	121,530	369,836	170,888	
Illinois	1,534,950	49,657	148,066	469,165	666,888	518,816	
Nebraska	953,600	138,876	307,380	500	446,756	162,845	
Indiana	756,450	64,587	243,895	84,562	393,044	192,182	
Minnesota	724,500	38,984	154,028	113,584	306,596	158,534	
Ohio	511,810	47,106	164,780	66,561	278,447	158,876	
Total 6 states	6,188,610	403,909	1,201,756	855,902	2,461,567	1,362,141	
U.S. total	8,876,706	693,227	1,537,686	1,051,671	3,282,584	1,723,091	
Six states as a percentage of U.S.	69.7	58.3	78.2	81.4	75.0	79.1	

		Мо			
Origin	Production	Truck	Rail	Barge	Total
		tł	ousands of bus	shels	
Alabama	24,375	4,130	3,291	2,885	10,300
California	46,400	1,402	0	0	1,40
Colorado	103,555	7,271	2,732	0	10,00
Delaware	19,075	8,560	3,526	0	12,08
Florida	12,350	2,066	514	24	2,60
Georgia	81,900	8,726	16,778	800	26,30
Illinois	1,534,950	49,657	148,066	469,165	666,88
Indiana	756,450	64,587	243,895	84,562	393,04
Iowa	1,707,300	64,699	183,607	121,530	369,83
Kansas	152,100	14,098	27,290	47	41,43
Kentucky	159,120	8,442	21,665	63,701	93,80
Louisiana	23,370	10,201	0	11,705	21,90
Maryland	70,400	27,548	4,673	0	32,22
Michigan	286,650	19,921	74,595	1,310	95,82
Minnesota	724,500	38,984	154,028	113,584	306,59
Mississippi	7,820	4,144	400	1,232	5,77
Missouri	272,800	34,448	36,387	73,484	144,31
Nebraska	953,600	138,876	307,380	500	446,75
New Jersey	12,540	807	1,541	0	2,34
New York	68,400	42	9,278	0	9,32
North Carolina	128,375	12,079	9,084	2,460	23,62
North Dakota	40,320	8,333	17,888 0		26,22
Ohio	511,810	47,106	164,780	66,561	278,44
Oklahoma	6,148	0	0	250	25
Oregon	6,600	0	880	1,182	2,06
Pennsylvania	151,800	20,578	4,783	50	25,41
South Carolina	45,760	8,242	5,931	0	14,17
South Dakota	252,000	25,542	57,294	0	82,83
Tennessee	79,380	5,707	5,991	7,344	19,04
Texas	156,450	7,540	14,980	99	22,61
Utah	1,840	256	141	0	39
Virginia	54,450	10,360	6,122	8,176	24,65
Washington	21,600	0	1,512	1,359	2,87
West Virginia	7,665	0	0	312	31:
Wisconsin	358,450	38,875	8,654	19,349	66,87
All other	36,403	-		-	
Total volume	8,876,706	693,227	1,537,686	1,051,671	3,282,584
Percent of total		21.12	46.84	32.04	

 $^{\rm a}\,$  Includes shipments to port areas.

ume was primarily from the adjacent states of Indiana, Iowa, Missouri, and Wisconsin, shipped to processors and to river elevators for transshipment to Gulf ports. Illinois shipped the highest percentage by barge with over 70 percent. Kentucky moved 68 percent by barge and Missouri moved over 50 percent by barge. Kansas, Michigan, Nebraska, North Dakota, and South Dakota all moved over 68 percent by rail. The origin of receipts and the mode of transport for each state are presented in the appendix (tables 13 through 68).

#### **Intrastate Shipments**

The quantities of intrastate movements reported to the surveyors in each state are given on the next to the last line of each of the tables 13 through 68. No attempt was made to analyze or compare these quantities because of the difficulty in determining quantities resold locally to be fed on farms and/or transshipped to nearby terminals. Several of the states did not report truck shipments.

#### **Shipments to Export Elevators**

Table 4 shows the amount of corn shipped to export elevators by each state, including shipments to export elevators located within the same state. For example, Louisiana shipments of 15.39 million bushels to Gulf ports in Louisiana are included in the table. Direct rail shipments to Canada and Mexico are also included in Table 4. Barge transportation predominated, accounting for 55.7 percent of the movements to export locations. Rail moved 38.8 percent and trucks moved 5.6 percent.

The states shipping the most corn to export locations were Illinois, Indiana, Iowa, Minnesota, Nebraska, and Ohio. These states were the most important corn producing states, accounting for 69.7 percent of 1985 production and 79.1 percent of 1985 exports. Illinois generated 17.3 percent of U.S. production but originated 30.1 percent of 1985 exports. Indiana was in second place with 8.5 percent of production and 11.2 percent of shipments to ports.

#### **Port Area Receipts**

In Table 5, data for individual export ports are summarized into 13 port areas for five export regions. Total volume received in port areas was 1.723 billion bushels. The individual ports included in the port regions are listed in Table 11. The Gulf region dominated receipts for export with 62.5 percent, of which 88 percent was received by barge, 10 percent by rail, and only 2 percent by truck. The Pacific region received 17.1 percent of the corn for export and the Atlantic Region received 13.5 percent. The Pacific region received 97.6 percent by rail while the Atlantic region received 90 percent by rail. The Great Lakes Region ports received 82.4 million bushels, accounting for 4.8 percent of the export corn. Trucks shipped 70.5 percent of the receipts at Lakes ports.

#### **Exports by Country of Destination**

Four countries received 66.8 percent of the corn exported from the United States in 1985. The USSR, the largest importer, received 522.6 million bushels — 30.5 percent of the total (Table 6). Japan was second with 435.2 million bushels, then Taiwan with 116.4 million bushels and Spain with over 89 million.

Most of the exports to the USSR moved through the Gulf ports. However, the USSR received more corn from Atlantic ports than any other country. Portugal and Spain are the other major custmers of Atlantic ports. The Gulf ports provided 68 percent of U.S, exports to Japan, with Pacific ports second in importance. Both Taiwan and Korea relied primarily on West coast ports which drew from the western edge of the cornbelt.

State Alabama Arizona Arkansas California Colorado Delaware Florida Georgia Idaho Illinois	9,754 1,930	Rail pusands of bush 36,964		Total
Arizona Arkansas California Colorado Delaware Florida Georgia Idaho	9,754 1,930	-		
Arizona Arkansas California Colorado Delaware Florida Georgia Idaho	9,754 1,930	-		
Arkansas California Colorado Delaware Florida Georgia Idaho			41,648	88,366
California Colorado Delaware Florida Georgia Idaho	00.004	5,246	0	7,176
California Colorado Delaware Florida Georgia Idaho	29,824	55,925	2,731	88,480
Colorado Delaware Florida Georgia Idaho	0	74,898	0	74,898
Delaware Florida Georgia Idaho	15,738	11,508	0	27,246
Florida Georgia Idaho	15,636	2,401	0	18,037
Georgia Idaho	14,019	21,573	0	35,592
Idaho	5,992	84,645	0	90,637
	224	0	0	224
	64.871	70,191	349	135,411
Indiana	16,883	10,886	204	27,973
Iowa	57,813	18,958	115	76,886
Kansas	63,196	20,854	0	84,050
Kentucky	21,544	4,685	150	26,379
Louisiana	1,644	3,945	381	5,970
Maryland	8,554	2,980	54	11,588
Michigan	44	0	0	44
Minnesota	16,172	4,796	57	21,025
Mississippi	4,136	41,489	1,807	47,432
Missouri	43,632	38,072	397	82,101
Montana	1,534	11,188	0	12,722
Nebraska	23,635	3,485	0	27,120
	438		0	
Nevada New England	438 9,500	1,270		1,708
New England		35,937	0	45,437
New Jersey	4,918	81	0	4,999
New Mexico	0	127	0	127
New York	3,116	19,701	0	22,817
North Carolina	2,907	36,752	0	39,659
North Dakota	17,361	4,500	0	21,861
Ohio	32,108	21,546	0	53,654
Oklahoma	24,248	13,645	0	37,893
Oregon	0	7,263	1,190	8,453
Pennsylvania	8,377	19,170	0	27,547
South Carolina	1,950	3,840	0	5,790
South Dakota	7,356	0	0	7,356
Tennessee	8,307	57,654	39,240	105,201
Texas	29,744	96,237	4,290	130,271
Utah	7,118	1,718	0	8,836
Virginia	9,241	10,758	0	19,999
Washington	0	2,514	0	2,514
West Virginia	1,890	0	0	1,890
Wisconsin	5,773	12,473	0	18,246
Wyoming	5,878	0	0	5,878
Total volume	597,005	869,875	92,613	1,559,49

<sup>a</sup> Does not include port area receipts.

Origin Alabama California Georgia Illinois Indiana		Rail <sup>1</sup>			Doroont of	
California Georgia Illinois Indiana			Barge	Total	Percent of U.S. Export	
California Georgia Illinois Indiana		usands of busl	rels			
Georgia Illinois Indiana	1,330	0	2,785	4,115	0.24	
Illinois Indiana	962	0	0	962	0.06	
Indiana	1,127	1,500	800	3,427	0.20	
	1,594	66,795	450,427	518,816	30.11	
lawa	14,098	102,568	75,516	192,182	11.15	
Iowa	76	59,125	111,687	170,888	9.92	
Kansas	0	2,144	47	2,191	0.13	
Kentucky	0	4,396	50,137	54,533	3.16	
Louisiana	7,910	0	7,476	15,386	0.89	
Michigan	8,930	41,841	1,310	52,081	3.02	
Minnesota	458	63,460	94,616	158,534	9.20	
Mississippi	2,483	0	1,183	3,666	0.21	
Missouri	0	10,735	69,775	80,510	4.67	
Nebraska	0	162,345	500	162,845	9.45	
North Carolina	0	3,065	2,460	5,525	0.32	
North Dakota	3,462	13,938	0	17,400	1.01	
Ohio	28,473	73,450	56,953	158,876	9.22	
Oklahoma	0	0	250	250	0.01	
Oregon	0	0	1,182	1,182	0.07	
Pennsylvania	0	0	50	50	0.00	
South Carolina	3,941	0	0	3,941	0.23	
South Dakota	1,342	46,049	0	47,391	2.75	
Tennessee	0	0	6,050	6,050	0.35	
Texas	6,748	8,000	99	14,847	0.86	
Virginia	8,288	4,300	8,122	20,710	1.20	
Washington	0	0	169	169	0.01	
West Virginia	0	0	312	312	0.02	
Wisconsin	5,000	4,100	17,152	26,252	1.52	
Total volume Percent of total	96,222	667,811	959,058	1,723,091		

 $\frac{1}{1}$  Includes direct shipments to Canada and Mexico.

	Мо				
Origin	Truck	Rail	Barge	Tota	
	th	ousands of bu	shels		
Great Lakes Region					
Duluth-Superior	591	2,718	0	3,309	
Chicago	16,088	3,701	0	19,789	
Toledo	40,193	16,666	0	56,859	
Saginaw	1,233	1,247	0	2,480	
Subtotal	58,105	24,332	0	82,437	
Atlantic Region					
North Atlantic	525	21,148	0	21,673	
South Atlantic	12,285	188,533	10,582	211,400	
Subtotal	12,810	209,681	10,582	233,073	
Gulf Region					
East Gulf	2,457	32,576	9,164	44,197	
Louisiana Gulf	10,393	65,599	937,840	1,013,832	
North Texas Gulf	2,826	7,450	121	10,397	
South Texas Gulf	3,998	5,062	0	9,060	
Subtotal	19,674	110,687	947,125	1,077,486	
Pacific Region					
Columbia River	4,479	154,578	1,351	160,408	
Puget Sound	192	114,954	0	115,146	
California Ports	962	18,726	0	19,688	
Subtotal	5,633	288,258	1,351	295,242	
Direct Export	0	34,853	0	34,853	
Total volume	96,222	667,811	959,058	1,723,091	
Percent of total	5.58	38.76	55.66		

# Table 5.

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	Export region						
Destination	St. Lawrence Seaway	Lakes	Atlantic	Gulf	Pacific	Interior	Total
			thousands o	of bushels			
Algeria	0	7,521	5,208	8,059	0	0	20,788
Belgium	0	1,638	11,010	18,791	0	0	31,439
Brazil	0	0	4,014	17,769	0	0	21,783
Bulgaria	0	0	4,557	5,104	0	0	9,661
China-Taiwan	0	0	0	20,063	96,337	0	116,400
Dominican Republic	0	0	0	7,140	0	0	7,140
Egypt	0	0	11,313	50,685	0	0	61,998
Germany, East	1,624	0	12,815	1,860	0	0	16,299
Israel	0	0	2,861	7,717	0	0	10,578
Italy	0	516	433	5,312	0	0	6,261
Jamaica	0	0	0	5,417	0	0	5,417
Japan	0	0	2,148	295,631	137,373	0	435,152
Jordan	0	0	0	8,337	0	0	8,337
Kenya	0	0	3,139	5,708	0	0	8,847
Korea Republic	0	0	0	14,755	54,538	0	69,293
Mexico	0	0	0	25,508	866	34,546	60,920
Netherlands	0	926	1,368	19,146	0	0	21,440
Peru	0	0	183	5,501	0	0	5,684
Portugal	3,688	1,612	36,555	15,698	0	0	57,553
Republic of South Africa	0	0	3,734	5,149	0	0	8,883
Saudi Arabia	0	0	620	12,880	0	0	13,500
Spain	21,582	712	35,672	31,450	0	0	89,416
Syria	0	0	3,716	2,655	0	0	6,371
Tunisia	1,260	613	2,974	1,916	0	0	6,763
United Kingdom	0	3,066	4,814	8,286	0	0	16,166
USSR	15,543	7,285	74,524	425,290	0	0	522,642
Venezuela	0	0	0	20,967	0	0	20,967
Other	1,547	3,754	10,904	34,716	1,520	307	52,748
Total	45,244	27,643	232,562	1,081,510	290,634	34,853	1,712,446

# Table 6.1985 Exports of U.S. Corn by Export Region and Destination.

Source: Grain and Feed Market News, Agricultural Marketing Service, U.S.D.A., Vol. 34, No. 5 (January 31, 1986), pp. 15-19.

### Comparisons with 1977

#### **Production and Utilization**

Corn production was 8.9 billion bushels in 1985, up from 6.5 billion bushels in 1977 (Figure 1). The total used increased from 6.2 billion bushels in 1977 to 6.5 billion bushels in 1985. The result was a significant increase in carryover at the end of the 1985 crop year.

Although most corn-producing states increased production between 1977 and 1985, there were a few exceptions (Table 7). Kansas and Texas both experienced declines of more than 3 percent. Larger declines occurred in three states where corn was a minor crop — Arizona, New Mexico, and Oklahoma. Within the cornbelt, changes in production altered the relative importance of several states between 1977 and 1985. lowa increased its volume from 17 percent of U.S. production in 1977 to 20.7 percent in 1985. Illinois, Michigan, Missouri, Nebraska, and Ohio also recorded slight increases in their shares of national production. Indiana, Kansas, Minnesota, and Wisconsin all experienced a slight decrease.

These changes had implications for the transportation industry as plentiful corn supplies in most locations meant shortened hauls to processors and/or export locations. Furthermore, exports declined from 31 percent of the 1977 crop usage to 19 percent of 1985 crop usage, while domestic food and industrial use increased from 9 percent in 1977 to 18 percent in 1985. Feed use was 60 percent in 1977 and 63 percent in 1985. This change in usage also had implications for transportation because corn processors tend to be located near production areas and require short hauls in contrast to the long distance hauls generally required for movement to export ports.

#### **Interstate Shipments**

Total interstate shipments of corn increased from 2.6 billion bushels in 1977 to 3.3 billion bushels in 1985. Approximately 1.6 billion bushels were shipped across state lines to processors and end users in 1985, compared with less than 1 billion bushels in 1977.

Interstate shipments of corn by barge increased from Indiana, Kentucky, Minnesota, Missouri, Ohio, and Wisconsin, primarily as a result of the increased movement to ports from these states. Shipments by rail from all states increased between 1977 and 1985, but with major declines in Illinois and Indiana (Table 8). Nebraska showed a large increase in rail shipments (from 210.5 to 307.3 million bushels) with ports in the Pacific Northwest as the primary destination for the increases.

All three transportation modes moved more corn across state lines in 1985 than in 1977, but there were no dramatic changes in shares held by the transportation modes during the period. Truck increased its share of total interstate shipments from 16.3 percent in 1977 to 21.1 percent in 1985. Rail shipments declined from 49 percent to 46.8 percent, and barge from 34.7 percent to 32.0 percent (Table 9). Considering only export movements, truck's share declined from 12.9 percent to 5.7 percent while barge's share increased from 50.3 percent to 55.6 percent. Rail's share increased slightly from 36.7 percent to 38.7 percent. The shift from truck to barge for movement to export ports resulted from the decrease in exports via the Great Lakes/St. Lawrence route. The destinations of shipments by states and mode are presented in the Appendix tables.

#### Corn Exports by State

The shaded states in Figure 4 accounted for about 98 percent of U. S. corn exports in 1985. Illinois accounted for 30.1 percent of

	1977		]		
	Production	Percent Share	Production	Percent Share	Percent
	(.000 bu.)		(,000 bu.)		
Alabama	10,875	0.17	24,375	0.30	124.14
Arizona	5,000	0.08	2,205	0.03	-55.90
Arkansas	2,279	0.04	7,884	0.10	245.94
California	28,652	0.45	46,400	0.56	61.94
Colorado	80,620	1.26	103,555	1.26	0
Delaware	10,360	0.16	19,075	0.23	84.12
Florida	10,465	0.16	12,350	0.15	18.01
Georgia	24,000	0.37	81,900	0.99	241.75
Idaho	2,408	0.04	10,000	0.12	315.28
Illinois	1,163,400	18.11	1,534,950	18.60	31.94
Indiana	633,420	9.86	756,450	9.17	19.42
Iowa	1,092,200	17.00	1,707,300	20.69	56.32
Kansas	161,280	2.51	152,100	1.84	-5.69
Kentucky	132,300	2.06	159,120	1.93	20.27
Louisiana	3,380	0.05	23,370	0.28	591.42
Maryland	43,200	0.67	70,400	0.85	62.96
Michigan	197,200	3.07	286,650	3.47	45.36
Minnesota	600,000	9.34	724,500	8.78	20.75
Mississippi	5,760	0.09	7,820	0.10	35.76
Missouri	201,400	3.13	272,800	3.31	35.45
Montana	748	0.012	1,045	0.01	39.71
Nebraska	648,450	10.09	953,600	11.56	47.06
New Jersey	6,650	0.10	12,540	0.15	88.57
New Mexico	10,260	0.16	10,075	0.12	-1.80
New York	51,200	0.80	68,400	0.83	33.59
North Carolina	88,740	1.38	128,375	1.56	44.66
North Dakota	17,301	0.27	40,320	0.49	133.05
Ohio	380,100	5.92	511,810	6.20	34.65
Oklahoma	7,790	0.12	6,148	0.20	-21.08
		0.02	6,600	0.07	478.95
Oregon	1,140			1.84	478.95
Pennsylvania	106,720	1.66	151,800		
South Carolina		0.39	45,760	0.55	84.22
South Dakota	126,850	1.97	252,000	3.05	98.66
Tennessee	47,450	0.74	79,380	0.96	67.29
Texas	161,700	2.52	156,450	1.90	-3.25
Utah	1,157	0.02	1,840	0.02	0
Virginia	30,800	0.48	54,450	0.66	76.79
Washington	7,616	0.12	21,600	0.26	183.61
West Virginia	3,996	0.06	7,665	0.09	91.82
Wisconsin	291,200	4.53	358,450	4.34	23.09
Wyoming	2,550	0.04	5,194	0.06	103.69
Total	6,425,457	100.00	8,252,834	100.00	28.44

Source: Agricultural Statistics, U.S.D.A., 1986.

corn exports in 1985—down from 37.5 percent in 1977. The other five largest producing states accounted for another 48.8 percent of 1985 exports.

Substantial shifts in export shares occurred in those states between 1977 and 1985. Iowa exports declined from 16.7 percent to 9.9 percent; Indiana from 12.2 percent to 11.2 percent; and Ohio from 11.0 percent to 9.2 percent.

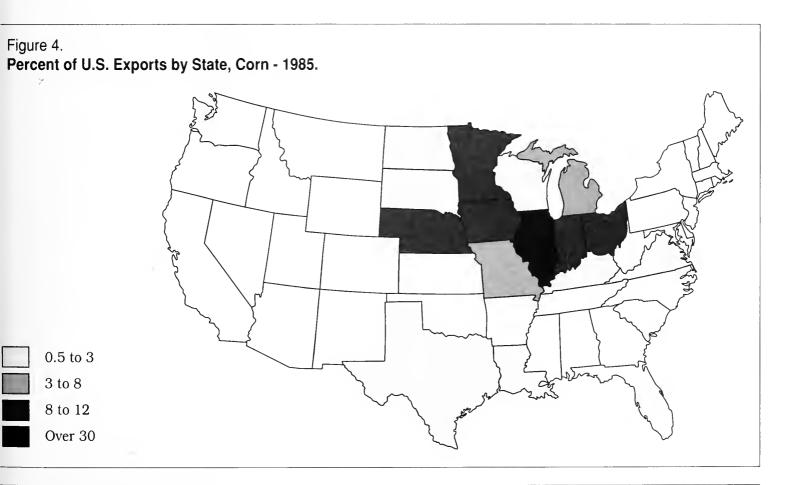
Minnesota, which was severely impacted by drought in 1977, increased its share from 6.1 percent of exports to 9.1 percent in 1985. The increase was due to rail shipments to Pacific Northwest ports as exports from Minnesota via both the Gulf and Great Lakes declined. Nebraska's share of exports increased dramatically from 2.1 percent to 9.4 percent due to rail shipments to Pacific ports.

Of the remaining states, Michigan's share of exports remained about constant at 3.0

percent while Missouri's share increased from 1.8 percent to 4.7 percent in 1985. South Dakota's share of exports increased from a negligible 0.1 percent of exports in 1977 to 2.8 percent in 1985 as a result of rail shipments to the Pacific Coast.

#### **Corn Exports by Port Region**

Total U.S. exports of corn increased from 1.6 billion bushels in 1977 to 1.7 billion bushels in 1985. Receipts exceeded exports in 1977, but fell short in 1985, indicating a change in inventories (Table 10). Although the relative rankings of the port regions were similar in 1977 and 1985, there were several changes in port shares. The Great Lakes and Atlantic ports lost share while Louisiana Gulf ports gained. The greatest change was in the Pacific Northwest with an increase from 11.3 million bushels in 1977 to 275.6 million bushels in 1985. These changes were dic-



# Table 8.Interstate Shipments of Corn for Each State and Mode of Transport, 1977 and 1985.a

		Rail	Т	ruck	E	large
Origin State	1977	1985	1977	1985	1977	1985
			thousand	ds of bushels		
Alabama	45	3,291	1,186	4,130	50	2,885
Arkansas	60	0	0	0	0	C
California	0	0	0	1,402	0	C
Colorado	7,269	2,732	2,053	7,271	0	C
Delaware	0	3,526	4,885	8,560	1,307	C
Florida	651	514	421	2,066	117	24
Georgia	5,715	16,778	3,710	8,726	0	800
Illinois	249,291	148,066	41,095	49,657	526,238	469,165
Indiana	285,824	243,895	76,865	64,587	25,214	84,362
Iowa	170,734	183,607	97,022	64,699	156,891	121,530
Kansas	27,777	27,290	7,443	14,098	0	47
Kentucky	27,602	21,665	7,626	8,442	46,330	63,701
Louisiana	624	0	118	10,201	50	11,705
Maryland	161	4,673	7,173	27,548	0	C
Michigan	35,095	74,595	31,653	19,921	0	1,310
Minnesota	33,062	154,028	16,894	38,984	76,573	113,584
Mississippi	0	400	1,788	4,144	0	1,232
Missouri	23,970	36,387	7,208	34,448	31,156	73,484
Nebraska	210,489	307,380	45,117	138,876	1,825	500
New Jersey	0	1,541	2,890	807	0	C
New Mexico	0	0	312	0	0	C
New York	2,223	9,278	1,511	42	0	C
North Carolina	2,617	9,084	17,755	12,079	2,348	2,460
North Dakota	6,777	17,888	124	833	0	Ċ
Ohio	165,105	164,780	9,666	47,106	30,804	66,561
Oklahoma	92	0	785	0	0	250
Oregon	0	880	0	0	0	1,182
Pennsylvania	291	4,783	3,810	20,578	0	50
South Carolina	1,572	5,931	1,055	8,242	0	C
South Dakota	2,285	57,294	4,337	25,542	0	C
Tennessee	2,984	5,991	1,903	5,707	2,231	7,344
Texas	10,825	14,980	776	7,540	0	99
Utah	0	141	0	256	0	C
Virginia	1,423	6,122	1,542	10,360	118	8,176
Washington	0	1,512	0	0	0	1,359
West Virginia	0	0	0	0	0	312
Wisconsin	2,917	8,654	24,789	38,875	3,350	19,349
	1,277,480	1,537,686	423,512	693,227	904,602	1,051,671

 $^{\rm a}\,$  Includes shipments to port areas.

#### Table 9.

#### Total Volume of Interstate Shipments by Mode of Transport, 1977 vs. 1985.<sup>a</sup>

	1	1977 <sup>b</sup>		1985		
Mode Ve	Volume	Percent share	Volume	Percent share	Percent change	
(,000 bu.)			(,000 bu.)			
Truck	423,512	16.3	693,227	21.1	63.6	
Rail	1,277,480	49.0	1,537,686	46.8	20.4	
Barge	904,602	34.7	1,051,671	32.1	16.3	
Total	2,605,591	100.0	3,282,584	100.0	26.0	

<sup>a</sup> Shipments to port areas are included.

<sup>b</sup> Derived from *Corn Movements in the United States, Interregional Flow Patterns and Transportation Requirements in 1977, by Mack N. Leath, Lowell D. Hill, and Stephen W. Fuller, p. 9.* 

# Table 10. Inspections for Export and Total Receipts of Corn at Port Areas, 1977 and 1985.

	1977	1985	197	7	198	5
Export Region and Port Area	Inspections for Export <sup>a</sup>		Total Receipts		Total Receipts	
	(,000 bu.)	(,000 bu.)	(,000 bu.)	Percent	(,000 bu.)	Percent
Great Lakes Region						
Duluth/Chicago	53.929	22,997	125,037	7.19	23,098	1.34
Toledo	84,933	56,823	84,793	4.87	56,859	3.30
Saginaw	3,576	2,477	3,595	0.21	2,480	0.14
Subtotal	142,438	82,297	213,425	12.27	82,437	4.78
Atlantic Region						
North	58,836	27,803	53,450	3.07	21,673	1.26
South	299,087	204,759	329,350	18.93	211,400	12.27
Subtotal	357,923	232,562	382,800	22.00	233,073	13.53
Gulf Region						
Eastern Gulf	19,035	43,879	20,984	1.21	44,197	2.56
Louisiana Gulf	950,527	1,013,499	1,004,562	57.75	1,013,832	58.84
North Texas Gulf	91,766	10,355	89,595	5.15	10,397	0.60
South Texas Gulf	380	9,076	655	0.04	9,060	0.53
Subtotal	1,061,708	1,076,809	1,115,796	64.15	1,077,486	62.53
Pacific Region						
Pacific Northwest	0	270,946	11,360	0.65	275,554	15.99
California Ports	14,755	19,688	16,055	0.92	19,688	1.14
Subtotal	14,755	290,634	27,415	1.57	295,242	17.13
Total receipts	1,576,824	1,717,155	1,739,436	100.00	1,682,302	100.00

<sup>a</sup> Grain and Feed Market News, Agricultural Marketing Service, U.S.D.A., Washington, D.C., various issues.

tated primarily by changes in foreign demand and ocean rates.

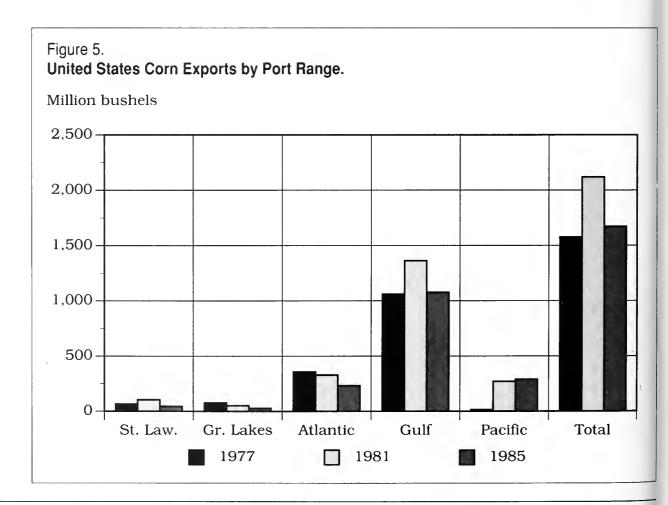
Figure 5 shows corn exports by port range for 1977, 1981, and 1985. At first glance, the changes may not look dramatic enough to have had a great influence on transportation flows. However, detailed analysis of the export destinations proves otherwise. Figure 6, showing exports by port range to the 12 EEC countries for 1977, 1981, and 1985, demonstrates the loss of corn markets in the EEC as a result of the Common Agricultural Policy and other factors between 1977 and 1985. Exports declined from 774 million bushels in 1977 to 224 million bushels in 1985. All port ranges lost volume due to the decline in exports to the EEC. Figure 7 shows exports to the USSR and Eastern Europe for the same three years. Unlike exports to the EEC, which had a clear downward trend during the period, exports to the Eastern Bloc were erratic. At

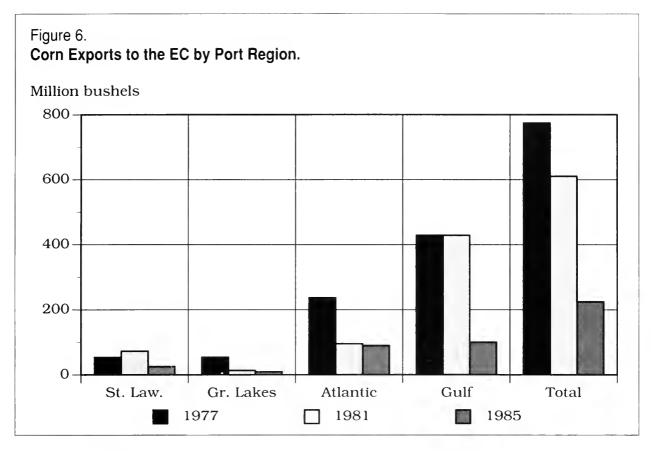
the same time, exports to the Eastern Bloc countries from the Gulf ports, Great Lakes/St. Lawrence Seaway and Atlantic Ports did not increase. The result of the decline in corn exports to the EEC and lack of increase in shipments to the Eastern Bloc was the decrease in Lake and Atlantic Range shipments between 1977 and 1985.

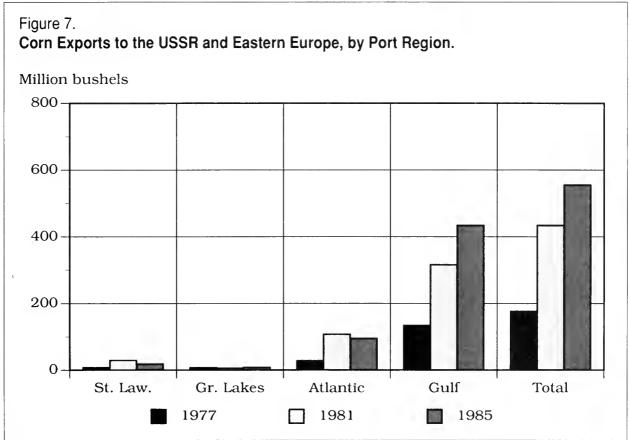
All of the considerable increase in exports to the Pacific Rim countries from 1977 to 1985 (Figure 8) appears to have been from the Pacific Northwest ports. In fact, the volume shipped from Atlantic ports to Pacific Rim countries dropped from 36 million bushels in 1977 to 2 million bushels in 1985.

#### **Port Receipts**

The Gulf ports received 1.077 billion bushels in 1985 (Table 10). Illinois accounted for 512 million bushels of receipts at the Gulf and Iowa accounted for 127 million bushels.







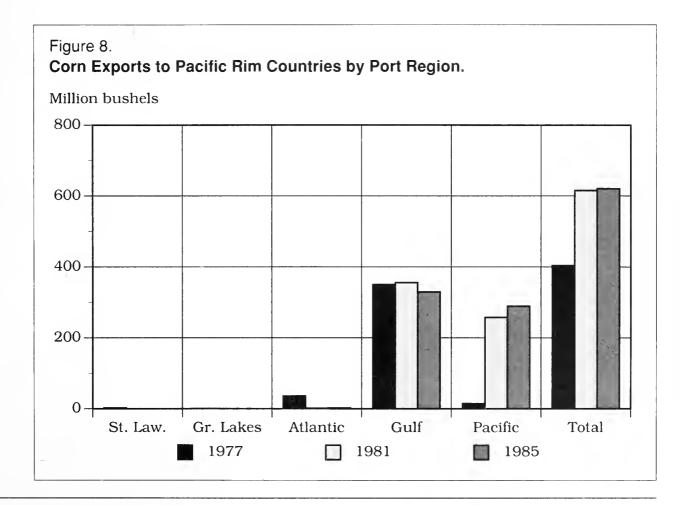
Export Region	Export Area	Port City	
Great Lakes Region	Duluth-Superior	Duluth, MN Superior, WI	
	Chicago	Milwaukee, WI Manitowoc, WI Racine, WI Chicago, IL	
	Toledo	Toledo, OH Huron, OH Erie, PA Buffalo, NY	
	Saginaw	Carrollton, MI Saginaw, MI Zilwaukee, MI Detroit, MI	
Atlantic Region	North Atlantic	Portland, ME Albany, NY Philadelphia, PA	
	South Atlantic	Baltimore, MD Norfolk, VA North Charleston, SC	
Gulf Region	East Gulf	Pascagoula, MS Mobile, AL	
	Louisiana Gulf	Mississippi River Lake Charles, LA	
	North Texas Gulf	Beaumont, TX Port Arthur, TX Houston, TX Galveston, TX	
	South Texas Gulf	Brownsville, TX Corpus Christi, TX	
Pacific Region	Columbia River	Kalama, WA Longview, WA Vancouver, WA Portland, OR Astoria, OR	
	Puget Sound	Seattle, WA Tacoma, WA	
	California Ports	Sacramento, CA Stockton, CA Long Beach, CA San Francisco, CA San Diego, CA	

Indiana, Kentucky, Minnesota, Missouri, and Ohio each shipped between 50 and 100 million bushels to Gulf ports for export in 1985. In 1977, Gulf export receipts were at about the same level as 1985 volume, 1.1 billion bushels. Of this total, 77.6 percent of the receipts were by barge, 22 percent by rail and .4 percent by truck. In 1985, Gulf port receipts were nearly 88 percent by barge, 10.3 percent by rail, and less than 2 percent by truck. There was a substantial increase in barge share in 1985 compared with 1977, while rail lost both share and volume.

In 1985, Atlantic ports received 233 million bushels of corn (Table 10). Shipments to Atlantic range ports by rail in 1985 amounted to 84 million bushels from Indiana and 74 million bushels from Ohio. Michigan shipped 36 million bushels by rail and Virginia shipped 21 million by truck, rail and barge. Of the total Atlantic port receipts, 90 percent were received by rail, 5.5 percent by truck, and 4.5 percent by barge (Table 12). The percentages by mode were similar to those of 1977.

Pacific ports experienced a major increase in export volume between 1977 and 1985. The 1977 total exports of less than 15 million bushels grew to 295 million bushels in 1985 (Table 10). Nebraska dominated the shipments to Pacific ports, providing 145 million bushels, nearly 50 percent of the total bushels exported. Minnesota shipped 56 million bushels and South Dakota shipped 46 million bushels. Nearly 98 percent of West Coast port receipts were transported by rail. The only barge shipments were to port elevators on the Columbia River (Appendix tables 66, 67, and 68).

Table 12 shows that Lake and St. Lawrence Seaway ports exported only 82 million bushels of corn in 1985, down from 142 million in



	Deve and	Ν			
Originating State	Export Region	Truck	Rail	Barge	Total
		tho			
Alabama	Gulf	1,330	0	2,785	4,115
California	Pacific	962	0	0	962
Georgia	Gulf	1,127	1,500	800	3,427
Illinois	Great Lakes	1,594	266	0	1,860
Illinois	Atlantic	0	5,045	0	5,045
Illinois	Gulf	0	61,484	450,427	511,911
Indiana	Great Lakes	14,098	10,305	0	24,403
Indiana	Atlantic	0	84,241	0	84,241
Indiana	Gulf	0	8,022	75,516	83,538
Iowa	Great Lakes	0	4,776	0	4,776
Iowa	Gulf	76	15,558	111,687	127,321
Iowa	Pacific	0	29,951	0	29,951
Iowa	Direct	0	8,840	0	8,840
Kansas	Gulf	0	0	47	47
Kansas	Direct	0	2,144	0	2,144
Kentucky	Gulf	0	4,396	50,137	54,533
Louisiana	Gulf	7,910	0	7,476	15,386
Michigan	Great Lakes	8,405	6,361	0	14,766
Michigan	Atlantic	525	35,480	0	36,005
Michigan	Gulf	0	0	1,310	1,310
Minnesota	Great Lakes	458	2,267	0	2,725
Minnesota	Gulf	0	2,946	94,616	97,562
Minnesota	Pacific	0	56,071	0	56,071
Minnesota	Direct	0	2,176	0	2,176
Mississippi	Gulf	2,483	0	1,183	3,666
Missouri	Gulf	0	3,752	69,775	73,527
Missouri	Direct	0	6,983	0	6,983
Nebraska	Gulf	0	8,942	500	9,442
Nebraska	Pacific	0	144,929	0	144,929
Nebraska	Direct	0	8,474	0	8,474

#### Table 12. 1985 Shipments of Corn to Points of Export for Each Originating State by Mode of Transport.

(Continued on page 23)

# Table 12. — Continued1985 Shipments of Corn to Points of Export for Each Originating State by Mode ofTransport.

		Ν	Mode of Transport			
Originating State	Export Region	Truck	Rail	Barge	Total	
		the				
North Carolina	Atlantic	0	3,065	2,460	5,525	
North Dakota	Great Lakes	133	357	0	490	
North Dakota	Pacific	3,329	12,247	0	15,576	
North Dakota	Direct	0	1,334	0	1,334	
Ohio	Atlantic	56	73,450	0	73,506	
Ohio	Gulf	0	0	56,953	56,953	
Ohio	Great Lakes	28,417	0	0	28,417	
Oklahoma	Gulf	0	0	250	250	
Oregon	Pacific	0	0	1,182	1,182	
Pennsylvania	Gulf	0	0	50	50	
South Carolina	Atlantic	3,941	0	0	3,941	
South Dakota	Gulf	0	989	0	989	
South Dakota	Pacific	1,342	45,060	0	46,402	
Tennessee	Gulf	0	0	6,050	6,050	
Texas	Gulf	6,748	3,098	99	9,945	
Texas	Direct	0	4,902	0	4,902	
Virginia	Atlantic	8,288	4,300	8,122	20,710	
Washington	Pacific	0	0	169	169	
West Virginia	Gulf	0	0	312	312	
Wisconsin	Gulf	0	0	17,152	17,152	
Wisconsin	Atlantic	0	4,100	0	4,100	
Wisconsin	Great Lakes	5,000	0	0	5,000	
Total volume		96,222	667,811	959,058	1,723,091	
Percentage of total volume		5.58	38.76	55.66	100.00	

1977. Ohio provided 28 million bushels while Indiana provided about 24 million bushels. Michigan shipped nearly 15 million bushels while Iowa and Wisconsin each provided about 5 million (Table 12). Great Lakes ports received 70 percent of their shipments by truck and 30 percent by rail. In 1977, 82 percent of their receipts were shipped by truck and 16 percent by rail.

## Conclusions

The 1985 corn flow study indicates that significant changes have occurred since 1977. Corn production remained highly concentrated in the traditional Corn Belt with 6 states— Illinois, Iowa, Nebraska, Indiana, Ohio, and Minnesota— accounting for nearly 70 percent of production in both years. However, in 1985, these six states originated 75 percent of interstate shipments and 79 percent of shipments to export ports, down from the 1977 volumes of 85 percent of interstate shipments and 86 percent of exports. In particular, Illinois and Iowa's combined share of exports declined from 54 percent to 40 percent.

The size of the 1985 corn crop and the resulting 2 billion bushel increase in carryout stocks may have reduced the required shipping distances (less grain had to be shipped into normally deficit areas and stock buildups may have been greatest in the areas most remote from markets). Both factors would reduce corn "bushel miles" from the level expected in years when supply and demand were more in balance.

There was an increase in domestic interstate movements between 1977 and 1985 of the same magnitude as the increase in domestic processing for food and alcohol use. Truck increased its share of this movement at the expense of rail. The increase in exports from Pacific Ports between 1977 and 1985 was a significant change in corn flows . This was met by an increase in rail shipments from Nebraska, Minnesota, South Dakota, and other states. The decline in EEC demand reduced corn movements to Great Lakes and Atlantic ports.

In 1985, barge was the dominant mode of movement to export ports with 87.9 percent of the movement. However, rail dominated movements to Atlantic ports with 90 percent, and to Pacific ports with 97.6 percent. Truck was the dominant mode at Great Lakes ports with 70.5 percent. Rail dominated domestic interstate shipments with 55.8 percent. Truck had a 38.2 percent share and barge a 6.0 percent share.

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# Appendix

### Receipts and Shipments of Corn by State, 1985.

### able 13. Alabama

### corn Receipts from Various Origins

	Mode	rtation		
origin	Truck	Rail	Barge	Total
	thou	isands of bu	Ishels	
lorida	416	122	24	562
eorgia	1,738	1,250	0	2,988
linois	4,256	12,049	4,383	20,688
ndiana	140	14,856	8,453	23,449
owa	0	0	5,526	5,526
entucky	1,267	0	3,913	5,180
linnesota	0	2,946	6,897	9,843
lissouri	0	0	2,459	2,459
ebraska	0	4,501	0	4,501
hio	0	240	7,683	7,923
ennessee	1,937	1,000	1,204	4,141
lisconsin	0	0	1,106	1,106
otal interstate	9,754	36,964	41,648	88,366

#### corn Shipments to Various Destinations

Mode			
Truck	Rail	Barge	Total
thous	sands of bu	shels	
0	973	0	973
1,220	2,178	0	3,398
480	0	0	480
1,100	140	100	1,340
1,330	0	2,318	3,648
0	0	467	467
4,130	3,291	2,885	10,306
13,253	935	2,311	16,499
17,383	4,226	5,196	26,805
	Truck thous 0 1,220 480 1,100 1,330 0 4,130 13,253	Truck         Rail           thousands of bu.         0           0         973           1,220         2,178           480         0           1,100         140           1,330         0           0         0           4,130         3,291           13,253         935	thousands of bushels         0       973       0         1,220       2,178       0         480       0       0         1,100       140       100         1,330       0       2,318         0       0       467         4,130       3,291       2,885         13,253       935       2,311

### Table 14. Arizona

#### **Corn Receipts from Various Origins**

	Mode	of transpor	tation	
Origin	Truck	Rail	Barge	Total
	thou	sands of bu	shels	
Indiana	0	257	0	257
Iowa	0	661	0	661
Kansas	30	486	0	516
Missouri	0	1,078	0	1,078
Nebraska	1,900	2,340	0	4,240
Texas	0	424	0	424
Total interstate	1,930	5,246	0	7,176

Destination	Truck	Rail	Barge	Total
	thous	sands of bu	shels	
Intrastate	1,787	1,244	0	3,031

### Table 15. Arkansas

#### Corn Receipts from Various Origins

	Mode	tation		
Origin	Truck	Rail	Barge	Total
	thou	isands of bu	shels	
Illinois	2,911	11,465	890	15,266
Indiana	0	0	102	102
Iowa	7,883	9,830	467	18,180
Kansas	1,283	5,834	0	7,117
Kentucky	0	0	264	264
Minnesota	274	6,349	850	7,473
Mississippi	0	0	49	49
Missouri	12,836	4,330	109	17,275
Nebraska	3,845	15,313	0	19,158
South Dakota	0	2,248	0	2,248
Tennessee	0	140	0	140
Texas	792	280	0	1,072
Wisconsin	0	136	0	136
Total interstate	29,824	55,925	2,731	88,480

#### Corn Shipments to Various Destinations

	Mode o			
Destination	Truck	Rail	Barge	Total
	thous	ands of bu	shels	
Intrastate	3,610	0	0	3,610

### Table 16. California

### Corn Receipts from Various Origins

	Mode			
Origin	Truck	Rail	Barge	Total
	thou	isands of bu	shels	
Colorado	0	85	0	85
Iowa	0	14,358	0	14,358
Kansas	0	2,324	0	2,324
Minnesota	0	3,693	0	3,693
Missouri	0	967	0	967
Nebraska	0	48,854	0	48,854
Texas	0	4,534	0	4,534
Utah	0	83	0	83
Total interstate	0	74,898	0	74,898

	Mode	Mode of transportation			
Destination	Truck	Rail	Barge	Total	
	thous	sands of bus	hels		
Nevada	412	0	0	412	
Utah	28	0	0	28	
California Ports	962	0	0	962	
Total interstate	1,402	0	0	1,402	
Intrastate	17,209	136	0	17,345	
Total	18,611	136	0	18,747	

### Table 17. Colorado

### Corn Receipts from Various Origins

	Mode	Mode of transportation			
Drigin	Truck	Rail	Barge	Total	
	thou	isands of bu	shels		
Kansas	435	125	0	560	
Missouri	150	0	0	150	
Vebraska	15,147	11,383	0	26,530	
Utah	6	0	0	6	
Fotal intersta	ate 15,738	11,508	0	27,246	

### Corn Shipments to Various Destinations

	Mode			
Destination	Truck	Rail	Barge	Total
	thou	sands of bu	shels	
California	0	85	0	85
Kansas	446	0	0	446
Nebraska	150	208	0	358
<b>Fexas</b>	0	1,354	0	1,354
Utah	6,675	330	0	7,005
Washington	0	755	0	755
Fotal interstate	7,271	2,732	0	10,003
Intrastate	9,042	0	0	9,024
Fotal	16,313	2,732	0	19,045

### Table 18. Delaware

#### Corn Receipts from Various Origins

	Mode of transportation			
Origin	Truck	Rail	Barge	Total
	thou	sands of bu	shels	
Maryland	15,148	1,175	0	16,323
New Jersey	407	210	0	617
Ohio	0	552	0	552
Pennsylvania	81	323	0	404
Virginia	0	141	0	141
Total interstate	e 15,636	2,401	0	18,037

	Mode			
Destination	Truck	Rail	Barge	Total
AH, EL.	thou	sands of bu	shels	
Maryland	6,618	268	0	6,886
New England	0	1,598	0	1,598
New Jersey	433	0	0	433
Pennsylvania	1,509	1,660	0	3,169
Total interstate	8,560	3,526	0	12,086
Intrastate	13,713	0	0	13,713
Total	22,273	3,526	0	25,799

### Table 19. Florida

### Corn Receipts from Various Origins

Mode of transportation					
Origin	Truck	Rail	Barge	Total	
thousands of bushels					
Alabama	0	973	0	973	
Georgia	5,587	12,127	0	17,714	
Illinois	0	487	0	487	
Indiana	0	2,739	0	2,739	
Kentucky	1,044	2,816	0	3,860	
North Carolina	7,388	129	0	7,517	
Ohio	0	633	0	633	
South Carolina	0	1,281	0	1,281	
Tennessee	0	247	0	247	
Texas	0	141	0	141	
Total interstate	14,019	21,573	0	35,592	

#### **Corn Shipments to Various Destinations**

Mode of transportation						
Destination	Truck	Rail	Barge	Total		
thousands of bushels						
Alabama	416	122	24	562		
Georgia	1,450	264	0	1,714		
Mississippi	200	128	0	328		
Total interstate	2,066	514	24	2,604		
Intrastate	2,000	620	0	2,620		
Total	4,066	1,134	24	5,224		

### Table 20. Georgia

### Corn Receipts from Various Origins

	Mode	e of transpor	tation	
Origin	Truck	Rail	Barge	Total
	thou	isands of bus	shels	
Alabama	1,220	2,178	0	3,398
Florida	1,450	264	0	1,714 -
Illinois	0	11,798	0	11,798
Indiana	0	53,349	0	53,349
Kentucky	277	6,400	0	6,677
Michigan	0	45	0	45
Mississippi	0	120	0	120
North Carolina	0	622	0	622
Ohio	0	6,185	0	6,185
South Carolina	2,805	3,045	0	5,850
Tennessee	240	502	0	742
Texas	0	137	0	137
Total interstate	5,992	84,645	0	90,637

	tation			
Destination	Truck	Rail	Barge	Total
<u></u>	thou	isands of bu	shels	
Alabama	1,738	1,250	0	2,988
Florida	5,587	12,127	0	17,714
Maryland	0	184	0	184
Mississippi	0	604	0	604
North Carolina	0	318	0	318
South Carolina	254	395	0	649
Tennessee	20	300	0	320
Virginia	0	100	0	100
Eastern Gulf	1,127	1,500	800	3,427
Total interstate	8,726	16,778	800	26,304
Intrastate	8,939	8,292	0	17,231
Total	17,665	25,070	800	43,535

### Table 22. Illinois

### Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total
	thou	isands of bu	shels	
Indiana	15,976	18,723	0	34,699
Iowa	16,150	38,211	105	54,466
Kentucky	25	0	0	25
Michigan	197	0	0	197
Minnesota	0	8,494	59	8,553
Mississippi	0	140	0	140
Missouri	10,561	1,000	95	11,656
Nebraska	0	752	0	752
Ohio	0	126	0	126
Tennessee	0	121	90	211
Wisconsin	21,962	2,624	0	24,586
 Total intersta	te 64,871	70,191	349	135,411

### **Corn Shipments to Various Destinations**

	Mod			
Destination	Truck	Rail	Barge	- Total
	tho	usands of b	ushels	
Alabama	4,256	12,049	4,383	20,688
Arkansas	2,911	11,465	890	15,266
Florida	0	487	0	487
Georgia	0	11,798	0	11,798
Indiana	3,676	5,904	102	9,682
Iowa	20,275	0	0	20,275
Kentucky	91	418	0	509
Louisiana	0	0	381	381
Maryland	0	2,272	0	2,272
Mississippi	218	30,419	884	31,521
Missouri	14,133	462	108	14,703
New England	0	350	0	350
New York	0	420	0	420
Ohio	507	861	0	1,368
Pennsylvania	1,834	1,100	0	2,934
Tennessee	162	2,030	11,990	14,182
Texas	0	886	0	886
Wisconsin	0	350	0	350
Chicago	1,594	266	0	1,860
South Atlantic	0	5,045	0	5,045
Eastern Gulf	0	7,091	1,667	8,758
Louisiana Gulf	0	54,393	448,697	503,090
North Texas Gu	lf 0	0	63	63
Total interstate	49,657	148,066	469,165	666,888
Intrastate 4	59,165	75,519	486	535,170
Total 5	08,822	223,585	469,651	1,202,058

### able 21. Idaho

#### orn Receipts from Various Origins

Mode of transportation					
ligin	Truck	Rail	Barge	Total	
	thous	ands of bu	shels		
1h	224	0	0	224	
al interstate	224	0	0	224	

stination	Truck	Rail	Barge	Total
	thous	ands of bu	shels	
rastate	0	613	0	613

### Table 23. Indiana

#### **Corn Receipts from Various Origins**

	Mode	tation				
Origin	Truck	Rail	Barge	Total		
	thousands of bushels					
Illinois	3,676	5,904	102	9,682		
Iowa	0	345	0	345		
Kentucky	43	126	49	218		
Michigan	5,392	1,478	0	6,870		
Minnesota	0	1,358	53	1,411		
Ohio	7,772	644	0	8,416		
Tennessee	0	131	0	131		
Wisconsin	0	900	0	900		
Total interstat	te 16,883	10,886	204	27,973		

#### **Corn Shipments to Various Destinations**

	Mod			
Destination	Truck	Rail	Barge	Total
	thc	usands of bi	ushels	
Alabama	140	14,856	8,453	23,449
Arizona	0	257	0	257
Arkansas	0	0	102	102
Florida	0	2,739	0	2,739
Georgia	0	53,349	0	53,349
Illinois	15,976	18,723	0	34,699
Kentucky	10,877	3,755	50	14,682
Michigan	44	0	0	44
Mississippi	0	0	160	160
Missouri	243	0	53	296
New England	0	2,521	0	2,521
New York	0	638	0	638
North Carolina	0	2,436	0	2,436
Ohio	20,975	13,978	0	34,953
Pennsylvania	258	129	0	387
South Carolina	ι O	108	0	108
Tennessee	1,976	27,838	228	30,042
Chicago	9,494	0	0	9,494
Toledo	4,604	10,305	0	14,909
North Atlantic	0	7,544	0	7,544
South Atlantic	0	76,697	0	76,697
Eastern Gulf	0	5,483	0	5,483
Louisiana Gulf	0	2,539	75,516	78,055
Total interstate	e 64,587	243,895	84,562	393,044
Intrastate	196,590	291,645	0	488,235
Total	261,177	535,540	84,562	881,279

### Table 24. Iowa

### Corn Receipts from Various Origins

Mode of transportation				
Origin	Truck	Rail	Barge	Total
	thou	isands of bu	shels	
Illinois	20,275	0	0	20,275
Kentucky	0	0	60	60
Minnesota	15,734	16,882	0	32,616
Missouri	4,618	300	0	4,918
Nebraska	11	882	0	893
South Dakota	14,225	0	0	14,225
Wisconsin	2,950	894	55	3,899
Total interstate	e 57,813	18,958	115	76,886

	Mod	e of transpo	ortation	
Destination	Truck	Rail	Barge	Total
	tho	usands of b	ushels	- 27
Alabama	0	0	5,526	5,526
Arizona	0	661	0	661
Arkansas	7,883	9,830	467	18,180
California	0	14,358	0	14,358
Illinois	16,150	38,211	105	54,466
Indiana	0	345	0	345
Kansas	884	1,019	0	1,903
Louisiana	0	3,664	0	3,664
Minnesota	3,882	288	0	4,170
Missouri	18,151	30,026	0	48,177
Nebraska	12,612	2,777	0	15,389
New York	0	700	0	700
Oklahoma	0	1,948	0	1,948
South Dakota	2,456	0	0	2,456
Tennessee	0	1,260	3,745	5,005
Texas	510	12,986	0	13,496
Utah	0	14	0	14
Wisconsin	2,095	6,395	0	8,490
Duluth-Superio	or 0	94	0	94
Chicago	0	3,435	0	3,435
Saginaw	0	1.247	0	1,247
Eastern Gulf	0	5,003	754	5,757
Louisiana Gulf	0	4,915	110.875	115,790
North Texas Gi	ılf 76	4,400	58	4,534
South Texas G	ulf O	1,240	0	1,240
Columbia River		18,469	0	18,469
Puget Sound	0	7,382	0	7,382
California Ports	s 0	4,100	0	4,100
Direct Exports	0	8,840	0	8,840
	64,699	183,607	121,530	369,836
Intrastate 3	311,049	108,329	58	419,436
Total 3	375,748	291,936	121,588	789,272

### able 25. Kansas

### orn Receipts from Various Origins

	Mode	Mode of transportation				
rigin	Truck	Rail	Barge	Total		
thousands of bushels						
olorado	446	0	0	446		
wa	884	1,019	0	1,903		
issouri	128	1,584	0	1,712		
ebraska	61,738	14,625	0	76,363		
outh Dakota	0	3,248	0	3,248		
exas	0	378	0	378		
otal interstat	e 63,196	20,854	0	84,050		

### orn Shipments to Various Destinations

	Mode	e of transpo	ortation	
estination	Truck	Rail	Barge	Total
	thoi	isands of b	ushels	
tizona	30	486	0	516
kansas	1,283	5,834	0	7,117
alifornia	0	2,324	0	2,324
olorado	435	125	0	560
issouri	5,000	214	0	5,214
ebraska	794	0	0	794
klahoma	1,962	2,033	0	3,995
exas	4,594	14,130	0	18,724
ouisiana Gulf	0	0	47	47
irect Export	0	2,144	0	2,144
otal interstate	14,098	27,290	47	41,435
trastate	19,719	420	0	20,139
otal	33,817	27,710	47	61,574

### Table 26. Kentucky

#### **Corn Receipts from Various Origins**

	Mode			
Origin	Truck	Rail	Barge	Total
thousands of bushels				
Illinois	91	418	0	509
Indiana	10,877	3,755	50	14,682
Louisiana	0	0	46	46
Missouri	0	0	54	54
Ohio	7,576	424	0	8,000
Tennessee	3,000	88	0	3,088
Total intersta	ite 21,544	4,685	150	26,379

	Mode	e of transpo	rtation	
Destination	Truck	Rail	Barge	Total
	thou	isands of bi	ıshels	
Alabama	1,267	0	3,913	5,180
Arkansas	0	0	264	264
Florida	1,044	2,816	0	3,860
Georgia	277	6,400	0	6,677
Illinois	25	0	0	25
Indiana	43	126	49	218
Iowa	0	0	60	60
Louisiana	0	141	0	141
Minnesota	0	0	57	57
Mississippi	866	1,429	268	2,563
North Carolina	0	489	0	489
Ohio	99	0	0	99
South Carolina	0	487	0	487
Tennessee	4,688	5,381	8,953	19,022
West Virginia	133	0	0	133
Eastern Gulf	0	4,396	0	4,396
Louisiana Gulf	0	0	50,137	50,137
Total interstate	8,442	21,665	63,701	93,808
Intrastate	7,555	0	0	7,555
Total	15,997	21,665	63,701	101,363

### Table 27. Louisiana

#### **Corn Receipts from Various Origins**

	tation				
Origin	Truck	Rail	Barge	Total	
thousands of bushels					
Illinois	0	0	381	381	
Iowa	0	3,664	0	3,664	
Kentucky	0	141	0	141	
Mississippi	1,644	140	0	1,784	
Total interstate	1,644	3,945	381	5,970	

### **Corn Shipments to Various Destinations**

Mode of transportation				
Destination	Truck	Rail	Barge	Total
	thou	sands of bu	shels	
Kentucky	0	0	46	46
Mississippi	2,187	0	0	2,187
Texas	104	0	4,183	4,287
Louisiana Gulf	7,910	0	7,476	15,386
Total interstate	10,201	0	11,705	21,906
Intrastate	2,693	852	7,476	11,021
Total	12,894	852	19,181	32,927

### Table 28. Maryland

### Corn Receipts from Various Origins

	Mode of transportation				
Origin	Truck	Rail	Barge	Total	
	thousands of bushels				
Delaware	6,618	268	0	6,886	
Georgia	0	184	0	184	
Illinois	0	2,272	0	2,272	
New Jersey	0	128	0	128	
Ohio	140	0	0	140	
Pennsylvania	1,796	128	0	1,924	
Virginia	0	0	54	54	
Total interstate	8,554	2,980	54	11,588	

	Mode	Mode of transportation			
Destination	Truck	Rail	Barge	Total	
	thou	isands of bu	shels		
Delaware	15,148	1,175	0	16,323	
New England	5,000	948	0	5,948	
Pennsylvania	2,300	2,410	0	4,710	
Virginia	5,100	140	0	5,240	
Total interstate	e 27,548	4,673	0	32,221	
Intrastate	12,977	103	0	13,080	
Total	40,525	4,776	0	45,301	

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### Table 29. Michigan

### corn Receipts from Various Origins

	Mode	of transpor	tation	
rigin	Truck	Rail	Barge	Total
	thous	ands of bu	shels	
ndiana	44	0	0	44
'otal interstate	44	0	0	44

### corn Shipments to Various Destinations

	Mod	Mode of transportation					
estination	Truck	Rail	Barge	Total			
	thou	thousands of bushels					
eorgia	0	45	0	45			
linois	197	0	0	197			
ndiana	5,392	1,478	0	6,870			
lew England	0	16,879	0	16,879			
lew York	0	2,134	0	2,134			
bio 👃	5,402	5,707	0	11,109			
ennsylvania	0	162	0	162			
ennessee	0	6,349	0	6,349			
oledo	7,172	6,361	0	13,533			
aginaw	1,233	0	0	1,233			
orth Atlantic	525	5,500	0	6,025			
outh Atlantic	0	29,980	0	29,980			
ouisiana Gulf	0	0	1,310	1,310			
otal interstate	19,921	74,595	1,310	95,826	_		
ntrastate	4,987	409	0	5,396			
otal	24,908	75,004	1,310	101,222			

### Table 30. Minnesota

### Corn Receipts from Various Origins

	tation				
Origin	Truck	Rail	Barge	Total	
thousands of bushels					
Iowa	3,882	288	0	4,170	
Kentucky	0	0	57	57	
North Dakota	2,243	3,677	0	5,920	
South Dakota	1,084	831	0	1,915	
Wisconsin	8,963	0	0	8,963	
Total interstate	16,172	4,796	57	21,025	

Mode of transportation				
Destination	Truck	Rail	Barge	Total
	tho	usands of b	ushels	
Alabama	0	2,946	6,897	9,843
Arkansas	274	6,349	850	7,473
California	0	3,693	0	3,693
Illinois	0	8,494	59	8,553
Indiana	0	1,358	53	1,411
Iowa	15,734	16,882	0	32,616
Mississippi	0	3,000	438	3,438
Missouri	0	0	109	109
Montana	0	9,000	0	9,000
North Dakota	14,961	4,500	0	19,461
Oregon	0	3,482	0	3,482
South Dakota	1,281	0	0	1,281
Tennessee	0	0	10,509	10,509
Texas	1,274	25,136	53	26,463
Wisconsin	3,678	5,728	0	9,406
Wyoming	1,324	0	0	1,324
Duluth-Superio	or 458	2,267	0	2,725
Eastern Gulf	0	2,946	3,208	6,154
Louisiana Gulf	0	0	91,408	91,408
Columbia River	. 0	18,013	0	18,013
Puget Sound	0	38,058	0	38,058
Direct Export	0	2,176	0	2,176
Total interstate	38,984	154,028	113,584	306,596
Intrastate	109,911	35,974	0	145,885
Total	148,895	190,002	113,584	452,481

### Table 31. Mississippi

#### **Corn Receipts from Various Origins**

	Mode	tation				
Origin	Truck	Rail	Barge	Total		
	thousands of bushels					
Alabama	480	0	0	480		
Florida	200	128	0	328		
Georgia	0	604	0	604		
Illinois	218	30,419	884	31,521		
Indiana	0	0	160	160		
Kentucky	866	1,429	268	2,563		
Louisiana	2,187	0	0	2,187		
Minnesota	0	3,000	438	3,438		
Missouri	155	0	0	155		
Nebraska	0	779	0	779		
North Carolina	0	688	0	688		
Ohio	0	120	0	120		
Tennessee	30	3,762	0	3,792		
Texas	0	560	0	560		
Wisconsin	0	0	57	57		
Total interstate	4,136	41,489	1,807	47,432		

#### **Corn Shipments to Various Destinations**

	Mode	Mode of transportation		
Destination	Truck	Rail	Barge	Total
	thous	sands of bu	shels	
Arkansas	0	0	49	49
Georgia	0	120	0	120
Illinois	0	140	0	140
Louisiana	1,644	140	0	1,784
Tennessee	17	0	0	17
Louisiana Gulf	2,483	0	1,183	3,666
Total interstate	4,144	400	1,232	5,776
Intrastate	2,424	847	0	3,271
Total	6,568	1,247	1,232	9,047

### Table 32. Missouri

### Corn Receipts from Various Origins

	Mode				
Origin	Truck	Rail	Barge	Total	
	thousands of bushels				
Illinois	14,133	462	108	14,703	
Indiana	243	0	53	296	
Iowa	18,151	30,026	0	48,177	
Kansas	5,000	214	0	5,214	
Minnesota	0	0	109	109	
Nebraska	5,605	7,067	0	12,672	
Ohio	0	0	127	127	
South Dakota	0	303	0	303	
Tennessee	500	0	0	500	
Total interstate	e 43,632	38,072	397	82,101	

	Mode of transportation			
Destination	Truck	Rail	Barge	Total
	thou	isands of bi	ishels	
Alabama	0	0	2,459	2,459
Arizona	0	1,078	0	1,078
Arkansas	12,836	4,330	109	17,275
California	0	967	0	967
Colorado	150	0	0	150
Illinois	10,561	1,000	95	11,656
Iowa	4,618	300	0	4,918
Kansas	128	1,584	0	1,712
Kentucky	0	0	54	54
Mississippi	155	0	0	155
Nebraska	6,000	0	0	6,000
Oklahoma	0	669	0	669
Tennessee	0	0	992	992
Texas	0	14,983	0	14,983
Washington	0	741	0	741
Eastern Gulf	0	0	417	417
Louisiana Gulf	0	3,752	69,358	73,110
Direct Export	0	6,983	0	6,983
Total interstate	34,448	36,387	73,484	144,319
Intrastate	13,365	1,756	69	15,190
Total	47,813	38,143	73,553	159,509

### Table 33. Montana

### Corn Receipts from Various Origins

	Mode of transportation			
Drigin	Truck	Rail	Barge	Total
	thou	sands of bu	shels	
Minnesota	0	9,000	0	9,000
North Dakota	0	273	0	273
South Dakota	1,534	1,915	0	3,449
Fotal interstate	1,534	11,188	0	12,722

### Table 34. Nebraska

### Corn Receipts from Various Origins

	Mode	Mode of transportation			
Origin	Truck	Rail	Barge	Total	
thousands of bushels					
Colorado	150	208	0	358	
Iowa	12,612	2,777	0	15,389	
Kansas	794	0	0	794	
Missouri	6,000	0	0	6,000	
South Dakota	4,079	500	0	4,579	
Total interstate	23,635	3,485	0	27,120	

	Mode of transportation				
Destination	Truck	Rail	Barge	Total	
	tho	usands of bu	shels		
Alabama	0	4,501	0	4,501	
Arizona	1,900	2,340	0	4,240	
Arkansas	3,845	15,313	0	19,158	
California	0	48,854	0	48,854	
Colorado	15,147	11,383	0	26,530	
Illinois	0	752	0	752	
Iowa	11	882	0	893	
Kansas	61,738	14,625	0	76,363	
Mississippi	0	779	0	779	
Missouri	5,605	7,067	0	12,672	
Nevada	0	1,212	0	1,212	
New Mexico	0	127	0	127	
Oklahoma	22,286	8,793	0	31,079	
Oregon	0	1,521	0	1,521	
South Dakota	991	0	0	991	
Texas	23,256	25,512	0	48,768	
Utah	415	1,374	0	1,789	
Wyoming	3,682	0	0	3,682	
Eastern Gulf	0	5,168	0	5,168	
Louisiana Gulf	0	0	500	500	
North Texas Gu	ılf 0	1,300	0	1,300	
South Texas G	ulf 0	2,474	0	2,474	
Columbia River	. 0	81,718	0	81,718	
Puget Sound	0	48,585	0	48,585	
California Ports	s 0	14,626	0	14,626	
Direct Export	0	8,474	0	8,474	
Total interstate	138,876	307,380	500	446,756	
Intrastate	166,072	8,089	0	174,161	
Total :	304,948	315,469	500	620,917	

### Table 35. Nevada

#### **Corn Receipts from Various Origins**

Mode of transportation					
Origin	Truck	Rail	Barge	Total	
thousands of bushels					
California	412	0	0	412	
Nebraska	0	1,212	0	1,212	
Utah	26	58	0	84	
Total interstate	438	1,270	0	1,708	

### Table 36. New England

#### **Corn Receipts from Various Origins**

Origin	Truck	Rail	Barge	Total	
thousands of bushels					
Delaware	0	1,598	0	1,598	
Illinois	0	350	0	350	
Indiana	0	2,521	0	2,521	
Maryland	5,000	948	0	5,948	
Michigan	0	16,879	0	16,879	
New York	0	9,194	0	9,194	
Ohio	0	1,992	0	1,992	
Pennsylvania	4,500	2,455	0	6,955	
Total interstate	9,500	35,937	0	45,437	

### Table 37. New Jersey

#### **Corn Receipts from Various Origins**

	Mode of	of transpor	sportation		
Origin	Truck	Rail	Barge	Total	
	thous	ands of bu	shels		
Delaware	433	0	0	433	
Pennsylvania	4,485	81	0	4,566	
Total interstate	4,918	81	0	4,999	

#### **Corn Shipments to Various Destinations**

	Mode					
Destination	Truck	Rail	Barge	Total		
	thousands of bushels					
Delaware	407	210	0	617		
Maryland	0	128	0	128		
New York	30	0	0	30		
North Carolina	0	203	0	203		
Pennsylvania	370	1,000	0	1,370		
Total interstate	807	1,541	0	2,348		

### Table 38. New Mexico

#### Corn Receipts from Various Origins

	Mode o			
Origin	Truck	Rail	Barge	Total
thousands of bushels				
Nebraska	0	127	0	127
Total interstate	0	127	0	127

Mode of transportation					
Destination	Truck	Rail	Barge	Total	
	thousands of bushels				
Intrastate	37	0	0	37	

### Table 39. New York

### Corn Receipts from Various Origins

	Mode					
Origin	Truck	Rail	Barge	Total		
thousands of bushels						
Illinois	0	420	0	420		
Indiana	0	638	0	638		
Iowa	0	700	0	700		
Michigan	0	2,134	0	2,134		
New Jersey	30	0	0	30		
Ohio	184	15,141	0	15,325		
Pennsylvania	2,902	668	0	3,570		
Total interstate	3,116	19,701	0	22,817		

### **Corn Shipments to Various Destinations**

	tation					
Destination	Truck	Rail	Barge	Total		
thousands of bushels						
New England	0	9,194	0	9,194		
Pennsylvania	42	84	0	126		
Total interstate	42	9,278	0	9,320		
Intrastate	7,504	4,794	0	12,298		
Total	7,546	14,070	0	21,618		

### Table 40. North Carolina

### **Corn Receipts from Various Origins**

Origin	Truck	Rail	Barge	Total
	thou	isands of bu	shels	
Georgia	0	318	0	318
Indiana	0	2,436	0	2,436
Kentucky	0	489	0	489
New Jersey	0	203	0	203
Ohio	33	29,877	0	29,910
Pennsylvania	0	1,128	0	1,128
South Carolina	1,459	1,232	0	2,691
Texas	0	388	0	388
Virginia	1,415	681	0	2,096
Total interstate	2,907	36,752	0	39,659

	Mode	e of transpor	transportation		
Destination	Truck	Rail	Barge	Total	
	thou	isands of bu	shels		
Florida	7,388	129	0	7,517	
Georgia	0	622	0	622	
Mississippi	0	688	0	688	
South Carolina	1,696	515	0	2,211	
Virginia	2,995	4,065	0	7,060	
South Atlantic	0	3,065	2,460	5,525	
Total interstate	12,079	9,084	2,460	23,623	
Intrastate	955	5,786	0	6,741	
Total	13,034	14,870	2,460	30,364	

### Table 41. North Dakota

### Corn Receipts from Various Origins

Mode of transportation				
Origin	Truck	Rail	Barge	Total
	thou	isands of bus	shels	
Minnesota	14,961	4,500	0	19,461
South Dakota	2,400	0	0	2,400
Total interstate	17,361	4,500	0	21,861

### **Corn Shipments to Various Destinations**

	Mod	e of transport	tation	
Destination	Truck	Rail	Barge	Total
	tho	usands of bus	shels	
Minnesota	2,243	3,677	0	5,920
Montana	0	273	0	273
South Dakota	2,628	0	0	2,628
Duluth-Superior	133	357	0	490
Columbia River	3,137	3,348	0	6,485
Puget Sound	192	8,899	0	9,091
Direct Export	0	1,334	0	1,334
Total interstate	8,333	17,888	0	26,221

### Table 42. Ohio

### Corn Receipts from Various Origins

	Mode			
Origin	Truck	Rail	Barge	Total
	thou	isands of bu	shels	
Illinois	507	861	0	1,368
Indiana	20,975	13,978	0	34,953
Kentucky	99	0	0	99
Michigan	5,402	5,707	0	11,109
Pennsylvania	5,094	0	0	5,094
Virginia	31	1,000	0	1,031
Total interstate	e 32,108	21,546	0	53,654

Mode of transportation				
Destination	Truck	Rail	Barge	Total
	tho	usands of bi	ıshels	
Alabama	0	240	7,683	7,923
Delaware	0	552	0	552
Florida	0	633	0	633
Georgia	0	6,185	0	6,185
Illinois	0	126	0	126
Indiana	7,772	644	0	8,416
Kentucky	7,576	424	0	8,000
Maryland	140	0	0	140
Mississippi	0	120	0	120
Missouri	0	0	127	127
New England	0	1,992	0	1,992
New York	184	15,141	0	15,325
North Carolina	33	29,877	0	29,910
Pennsylvania	1,515	12,625	0	14,140
South Carolina	0	2,335	0	2,335
Tennessee	267	14,356	1,798	16,421
Virginia	1,146	6,080	0	7,226
Toledo	28,417	0	0	28,417
North Carolina	0	4,004	0	4,004
South Atlantic	56	69,446	0	69,502
Louisiana Gulf	0	0	56,953	56,953
Total interstate	47,106	164,780	66,561	278,447
Intrastate	82,093	20,372	0	102,465
Total 1	29,199	185,152	66,561	380,912

### Table 43. Oklahoma

### **Corn Receipts from Various Origins**

Drigin	Truck	Rail	Barge	Total
	thou	isands of bu	shels	
iowa	0	1,948	0	1,948
Kansas	1,962	2,033	0	3,995
Missouri	0	669	0	669
Vebraska	22,286	8,793	0	31,079
South Dakota	0	202	0	202
Fotal interstate	24,248	13,645	0	37,893

#### **Corn Shipments to Various Destinations**

Destination	Truck	Rail	Barge	Total	
thousands of bushels					
Louisiana Gulf	0	0	250	250	
Total interstate	0	0	250	250	

### Table 44. Oregon

### Corn Receipts from Various Origins

	tation			
Origin	Truck	Rail	Barge	Total
	thou	sands of bu	shels	
Minnesota	0	3,482	0	3,482
Nebraska	0	1,521	0	1,521
South Dakota	0	748	0	748
Washington	0	1,512	1,190	2,702
Total interstate	0	7,263	1,190	8,453

	Mode	tation				
Destination	Truck	Rail	Barge	Total		
	thousands of bushels					
Washington	0	880	0	880		
Columbia River	0	0	1,182	1,182		
Total interstate	0	0	250	250		
Intrastate	0	1,081	0	1,082		
Total	0	1,962	1,182	3,144		

### Table 45. Pennsylvania

#### Corn Receipts from Various Origins

	Mode	tation					
Origin	Truck	Rail	Barge	Total			
	thousands of bushels						
Delaware	1,509	1,660	0	3,169			
Illinois	1,834	1,100	0	2,934			
Indiana	258	129	0	387			
Maryland	2,300	2,410	0	4,710			
Michigan	0	162	0	162			
New Jersey	370	1,000	0	1,370			
New York	42	84	0	126			
Ohio	1,515	12,625	0	14,140			
Virginia	549	0	0	549			
Total interstate	8,377	19,170	0	27,547			

#### **Corn Shipments to Various Destinations**

	Mod	Mode of transportation			
Destination	Truck	Rail	Barge	Total	
	tho	usands of b	ushels		
Delaware	81	323	0	404	
Maryland	1,796	128	0	1,924	
New England	4,500	2,455	0	6,955	
New Jersey	4,485	81	0	4,566	
New York	2,902	668	0	3,570	
North Carolina	0	1,128	0	1,128	
Ohio	5,094	0	0	5,094	
West Virginia	1,720	0	0	1,720	
Louisiana Gulf	0	0	50	50	
Total interstate	20,578	4,783	50	25,411	
Intrastate	23,514	473	0	23,987	
Total	44,092	5,256	50	49,398	

### Table 46. South Carolina

#### **Corn Receipts from Various Origins**

	Mode	tation		
Origin	Truck	Rail	Barge	Total
	thou	sands of bu	shels	
Georgia	254	395	0	649
Indiana	0	108	0	108
Kentucky	0	487	0	487
North Carolina	1,696	515	0	2,211
Ohio	0	2,335	0	2,335
Total interstate	1,950	3,840	0	5,790

	Mode	tation		
Destination	Truck	Rail	Barge	Total
	thou	isands of bu	shels	
Florida	0	1,281	0	1,281
Georgia	2,805	3,045	0	5,850
North Carolina	1,459	1,232	0	2,691
Virginia	0	373	0	373
West Virginia	37	0	0	37
South Atlantic	3,941	0	0	3,941
Total interstate	8,242	5,931	0	14,173
Intrastate	4,489	4,215	0	8,704
Total	12,731	10,146	0	22,877

### **Fable 47. South Dakota**

#### Corn Receipts from Various Origins

	Mode					
)rigin	Truck	Rail	Barge	Total		
thousands of bushels						
owa	2,456	0	0	2,456		
<i>l</i> innesota	1,281	0	0	1,281		
Vebraska	991	0	0	991		
Jorth Dakota	2,628	0	0	2,628		
otal interstate	7,356	0	0	7,356		

#### **Corn Shipments to Various Destinations**

Truck	Rail	Bardo				
		Barge	Total			
thousands of bushels						
0	2,248	0	2,248			
14,225	0	0	14,225			
0	3,248	0	3,248			
1,084	831	0	1,915			
0	303	0	303			
1,534	1,915	0	3,449			
4,079	500	0	4,579			
2,400	0	0	2,400			
0	202	0	202			
0	748	0	748			
6	1,250	0	1,256			
872	0	0	872			
0	989	0	989			
1,342	33,030	0	34,372			
0	12,030	0	12,030			
25,542	57,294	0	82,836			
29,901	0	0	29,901			
55,443	57,294	0	112,737			
	$\begin{array}{c} 0\\ 14,225\\ 0\\ 1,084\\ 0\\ 1,534\\ 4,079\\ 2,400\\ 0\\ 0\\ 0\\ 6\\ 872\\ 0\\ 1,342\\ 0\\ 1,342\\ 0\\ 25,542\\ 29,901 \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$			

### Table 48. Tennessee

#### **Corn Receipts from Various Origins**

	Mode					
Origin	Truck	Rail	Barge	Total		
	thousands of bushels					
Alabama	1,100	140	100	1,340		
Georgia	20	300	0	320		
Illinois	162	2,030	11,990	14,182		
Indiana	1,976	27,838	228	30,042		
Iowa	0	1,260	3,745	5,005		
Kentucky	4,688	5,381	8,953	19,022		
Michigan	0	6,349	0	6,349		
Minnesota	0	0	10,509	10,509		
Mississippi	17	0	0	17		
Missouri	0	0	992	992		
Ohio	267	14.356	1,798	16,421		
Virginia	77	0	0	77		
Wisconsin	0	0	925	925		
Total interstate	8,307	57,654	39,240	105,201		

	Mode			
Destination	Truck	Rail	Barge	Total
	thou	isands of bus	shels	
Alabama	1,937	1,000	1,204	4,141
Arkansas	0	140	0	140
Florida	0	247	0	247
Georgia	240	502	0	742
Illinois	0	121	90	211
Indiana	0	131	0	131
Kentucky	3,000	88	0	3,088
Mississippi	30	3,762	0	3,792
Missouri	500	0	0	500
Louisiana Gulf	0	0	6,050	6,050
Total interstate	5,707	5,991	7,344	19,042
Intrastate	6,332	1,488	0	7,820
Total	12,039	7,479	7,344	26,862

### Table 49. Texas

### Corn Receipts from Various Origins

	Mode					
Origin	Truck	Rail	Barge	Total		
thousands of bushels						
Colorado	0	1,354	0	1,354		
Illinois	0	886	0	886		
Iowa	510	12,986	0	13,496		
Kansas	4,594	14,130	0	18,724		
Louisiana	104	0	4,183	4,287		
Minnesota	1,274	25,136	53	26,463		
Missouri	0	14,983	0	14,983		
Nebraska	23,256	25,512	0	48,768		
South Dakota	6	1,250	0	1,256		
Wisconsin	0	0	54	54		
Total interstate	29,744	96,237	4,290	130,271		

### **Corn Shipments to Various Destinations**

	Mode of transportation				
Destination	Truck	Rail	Barge	Total	
	thou	isands of bu	shels	<u> </u>	
Arizona	0	424	0	424	
Arkansas	792	280	0	1,072	
California	0	4,534	0	4,534	
Florida	0	141	0	141	
Georgia	0	137	0	137	
Kansas	0	378	0	378	
Mississippi	0	560	0	560	
North Carolina	0	388	0	388	
Washington	0	138	0	138	
Louisiana Gulf	0	0	99	99	
N. Texas Gulf	2,750	1,750	0	4,500	
S. Texas Gulf	3,998	1,348	0	5,346	
Direct Export	0	4,902	0	4,902	
Total interstate	7,540	14,980	99	22,619	
Intrastate 1	38,680	12,281	91	151,052	
Total 1	46,220	27,261	190	173,671	

### Table 50. Utah

### Corn Receipts from Various Origins

	Mode	tation		
Origin	Truck	Rail	Barge	Total
-	thou	sands of bu	shels	
California	28	0	0	28
Colorado	6,675	330	0	7,005
Iowa	0	14	0	14
Nebraska	415	1,374	0	1,789
Total interstate	7,118	1,718	0	8,836

	Mode	of transpor	tation	
Destination	Truck	Rail	Barge	Total
	thous	ands of bu	shels	
California	0	83	0	83
Colorado	6	0	0	6
Idaho	224	0	0	224
Nevada	26	58	0	84
Total interstate	256	141	0	397

### **Fable 51. Virginia**

### Corn Receipts from Various Origins

	Mode	e of transpor	tation	
Drigin	Truck	Rail	Barge	Total
	thou	isands of bu	shels	
Georgia	0	100	0	100
Maryland	5,100	140	0	5,240
Jorth Carolina	2,995	4,065	0	7,060
Ohio	1,146	6,080	0	7,226
South Carolina	0	373	0	373
fotal interstate	9,241	10,758	0	19,999

#### **Corn Shipments to Various Destinations**

1	Mode	of transpo	rtation		
Destination	Truck	Rail	Barge	Total	
	thou	sands of bi	ıshels		
Delaware	0	141	0	141	
Maryland	0	0	54	54	
North Carolina	1,415	681	0	2,096	
Ohio	31	1,000	0	1,031	
Pennsylvania	549	0	0	549	
ſennessee	77	0	0	77	
South Atlantic	8,288	4,300	8,122	20,710	
Fotal interstate	10,360	6,122	8,176	24,658	
ntrastate	10,371	1,618	2,210	14,199	
Fotal	20,731	7,740	10,386	38,857	

### Table 52. Washington

### Corn Receipts from Various Origins

	Mode	of transpor	tation	
Origin	Truck	Rail	Barge	Total
	thou	sands of bu	shels	
Colorado	0	755	0	755
Missouri	0	741	0	741
Oregon	0	880	0	880
Texas	0	138	0	138
Total interstate	0	2,514	0	2,514

	Mode	e of transpor	tation	
Destination	Truck	Rail	Barge	Total
	thou	isands of bu	shels	
Oregon	0	1,512	1,190	2,702
Columbia River	0	0	169	169
Total interstate	0	1,512	1,359	2,871
Intrastate	0	11,885	274	12,159
Total	0	13,397	1,633	15,030

### Table 53. West Virginia

#### Corn Receipts from Various Origins

	Mode o	of transport	tation	
Origin	Truck	Rail	Barge	Total
	thous	ands of bus	shels	
Kentucky	133	0	0	133
Pennsylvania	1,720	0	0	1,720
South Carolina	37	0	0	37
Total interstate	1,890	0	0	1,890

### **Corn Shipments to Various Destinations**

	Mode o	of transpor	tation	
Destination	Truck	Rail	Barge	Total
	thous	ands of bus	shels	
Louisiana Gulf	0	0	312	312
Total interstate	0	0	312	312

### Table 54. Wisconsin

### Corn Receipts from Various Origins

	Mode	e of transpor	tation	
Origin	Truck	Rail	Barge	Total
	thou	sands of bu	shels	
Illinois	0	350	0	350
Iowa	2,095	6,395	0	8,490
Minnesota	3,678	5,278	0	9,406
Total interstate	5,773	12,473	0	18,246

	Mode	e of transpo	rtation	
Destination	Truck	Rail	Barge	Total
	thou	isands of bi	ishels	
Alabama	0	0	1,106	1,106
Arkansas	0	136	0	136
Illinois	21,962	2,624	0	24,586
Indiana	0	900	0	900
Iowa	2,950	894	55	3,899
Minnesota	8,963	0	0	8,963
Mississippi	0	0	57	57
Tennessee	0	0	925	925
Texas	0	0	54	54
Chicago	5,000	0	0	5,000
North Atlantic	0	4,100	0	4,100
Louisiana Gulf	0	0	17,152	17,152
Total interstate	38,875	8,654	19,349	66,878
Intrastate	17,416	1,579	59	19,054
Total	56,291	10,233	19,408	85,932

### **Table 55. Wyoming**

#### **Corn Receipts from Various Origins**

	Mode	of transpor	tation			
Drigin	Truck	Rail	Barge	Total		
	thous	ands of bu	shels			
vinnesota	1,324	0	0	1,324		
Vebraska	3,682	0	0	3,682		
South Dakota	872	0	0	872		
Fotal interstate	5,878	0	0	5,878		

#### **Corn Shipments to Various Destinations**

	Mode o	of transpor	tation	
Destination	Truck	Rail	Barge	Total
	thous	ands of bu	shels	
ntrastate	391	0	0	391

### Table 56. Duluth-Superior

### Corn Receipts from Various Origins

	Mode	of transpor	tation			
Drigin	Truck	Rail	Barge	Total		
	thou	sands of bu	shels			
owa	0	94	0	94		
Minnesota	458	2,267	0	2,725		
Vorth Dakota	133	357	0	490		
Cotal	591	2,718	0	3,309		

### Table 57. Chicago

#### **Corn Receipts from Various Origins**

	Mode	Mode of transportation				
Origin	Truck	Rail	Barge	Total		
	thou	sands of bu	shels			
Illinois	1,594	266	0	1,861		
Indiana	9,494	0	0	9,494		
Iowa	0	3,435	0	3,435		
Wisconsin	5,000	0	0	5,000		
Total	16,088	3,701	0	19,790		

### Table 58. Toledo

	Mode	tation		
Origin	Truck	Rail	Barge	Total
	thou	isands of bu	shels	
Indiana	4,604	10,305	0	14,909
Michigan	7,172	6,361	0	13,533
Ohio	28,417	0	0	28,417
Total	40,193	16,666	0	56,859

### Table 59. Saginaw

#### **Corn Receipts from Various Origins**

Origin	Truck	Rail	Barge	Total
	thous	sands of bu	shels	
Iowa	0	1,247	0	1,247
Michigan	1,233	0	0	1,233
Total	1,233	1,247	0	2,480

### Table 60. North Atlantic

#### Corn Receipts from Various Origins

	Mode	Mode of transportation			
Origin	Truck	Rail	Barge	Total	
	thou	isands of bu	shels		
Indiana	0	7,544	0	7,544	
Michigan	525	5,500	0	6,025	
Ohio	0	4,004	0	4,004	
Wisconsin	0	4,100	0	4,100	
Total	525	21,148	0	21,673	

### Table 61. South Atlantic

#### Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total
· · · · · · · · · · · · ·	tho	usands of bu	shels	
Illinois	0	5,045	0	5,045
Indiana	0	76,697	0	76,697
Michigan	0	29,980	0	29,980
North Carolina	0	3,065	2,560	5,625
Ohio	56	69,446	0	69,502
South Carolina	3,941	0	0	3,941
Virginia	8,288	4,300	8,122	20,710
Total	12,285	188,533	10,682	211,500

### Table 62. Eastern Gulf

Origin	Truck	Rail	Barge	Total
	thou	isands of bu	shels	
Alabama	1,330	0	2,318	3,648
Georgia	1,127	1,500	800	3,427
Illinois	0	7,091	1,667	8,758
Indiana	0	5,483	0	5,483
Iowa	0	5,003	754	5,757
Kentucky	0	4,396	0	4,396
Minnesota	0	2,946	3,208	6,154
Missouri	0	0	417	417
Nebraska	0	5,168	0	5,168
South Dakota	0	671	0	671
Total	2,457	32,258	9,164	43,879

able 63. Louisiana Gulf	able 63.	Louisiana	Gulf
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### corn Receipts from Various Origins

	Mode of transportation				
rigin	Truck	Rail	Barge	- Total	
thousands of bushels					
labama	0	0	467	467	
linois	0	54,393	448,697	503,090	
ıdiana	0	2,539	75,516	78,055	
owa	0	4,915	110,875	115,790	
ansas	0	0	47	47	
entucky	0	0	50,137	50,137	
ouisiana	7,910	0	7,476	15,386	
lichigan	0	0	1,310	1,310	
linnesota	0	0	91,408	91,408	
lississippi	2,483	0	1,183	3,666	
lissouri	0	3,752	69,358	73,110	
lebraska	0	0	500	500	
)hio	0	0	56,953	56,953	
klahoma	0	0	250	250	
ennsylvania	0	0	50	50	
'ennessee	0	0	6,050	6,050	
'exas	0	0	99	99	
Vest Virginia	0	0	312	312	
Visconsin	0	0	17,152	17,152	
otal	10,393	65,599	937,840	1,013,832	

### Table 64. North Texas Gulf

### Corn Receipts from Various Origins

	Mode	Mode of transportation				
Origin	Truck	Rail	Barge	Total		
	thou	sands of bu	shels			
Illinois	0	0	63	63		
Iowa	76	4,400	58	4,534		
Nebraska	0	1,300	0	1,300		
Texas	2,750	1,750	0	4,500		
Total	2,826	7,450	121	10,397		

### Table 65. South Texas Gulf

	Mode	tation		
Origin	Truck	Rail	Barge	Total
	thou	sands of bu	shels	
Iowa	0	1,240	0	1,240
Nebraska	0	2,474	0	2,474
Texas	3,998	1,348	0	5,346
Total	3,998	5,062	0	9,060

### Table 66. Columbia River

### Corn Receipts from Various Origins

	Mod				
Origin	Truck	Rail	Barge	Total	
thousands of bushels					
Iowa	0	18,469	0	18,469	
Minnesota	0	18,013	0	18,013	
Nebraska	0	81,718	0	81,718	
North Dakota	3,137	3,348	0	6,485	
Oregon	0	0	1,182	1,182	
South Dakota	1,342	33,030	0	34,372	
Washington	0	0	169	169	
Total	4,479	154,578	1,351	160,408	

### Table 68. California Ports

### Corn Receipts from Various Origins

	Mode			
Origin	Truck	Rail	Barge	Total
	thou	isands of bu	shels	
California	962	0	0	962
Iowa	0	4,100	0	4,100
Nebraska	0	14,626	0	14,626
Total	962	18,726	0	19,688

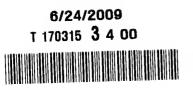
### Table 67. Puget Sound

	Mode of transportation			
Origin	Truck	Rail	Barge	Total
	tho	usands of bu	shels	
Iowa	0	7,382	0	7,382
Minnesota	0	38,058	0	38,058
Nebras <b>ka</b>	0	48,585	0	48,585
North Dakota	192	8,899	0	9,091
South Dakota	0	12,030	0	12,030
Total	192	114,954	0	115,146









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