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Staff Papers Series

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July 1989

U.S. CORN MOVEMENTS, 1985

A Preliminary Report of Data

by

Jerry E. Fruin Daniel W. Halbach Lowell D. Hill Albert J. Allan



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ABSTRACT

This paper presents the results of the corn portion of the 1985 grain flow survey and makes comparisons with 1977 when the previous survey was done. The most significant change from 1977 was the increase in exports from the Pacific Northwest ports from 15 million bushels to over 290 million in 1985. This was accomplished by an increase in rail shipments from Nebraska, Minnesota, and South Dakota. The decline in European Economic Community demand reduced corn movements through the Great Lakes and Atlantic ports and, consequently, truck movements to those ports.

Trucks increased their share of domestic movements. The large 1985 corn crop and subsequent increase in stocks reduced the volume of interstate movements and the length of shipping distances. Total corn "bushel miles" were less than would be expected in a year when corn supply and disappearance were more in balance.

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Introduction

This report contains the results of research conducted by the North Central Regional Research Committee (NC-137) and the Southern Regional Research Committee (S-176) in cooperation with universities in other states. The committees used a survey of grain handlers to identify the origins and destinations of grain shipments to the point of end-use or a point of export. This information included the volume shipped by alternative modes of transportation (barge, rail, truck). Such information is useful to firms handling, processing, and shipping corn as well as to government agencies setting or evaluating policies.

Researchers in each state surveyed a representative sample of firms and expanded the receipts and shipments by the appropriate multipliers to represent the total volume of corn movements. The data was validated by matching shippers' information with receivers' information and by comparing the results with secondary sources.

This report is one of a series of four preliminary summaries of the data collected by 1985. The other three deal with grain sorghum, soybean, and wheat, respectively. The data were summarized by various committee members under the supervision of Joseph E. Vercimak in the Department of Agricultural Economics at the University of Illinois at Urbana-Champaign. Administration of the grant funds was coordinated by Lowell D. Hill and Joseph E. Vercimak at the University of Illinois.

The tabulated results of the study for corn are given in the following pages with greater detail provided for each state in the Appendix tables.

Comparison of 1985 and 1977

The 1985 corn crop was a bumper 8.9 billion bushels compared with 6.4 billion bushels in 1977. The 1977 crop increased U.S. year ending stocks by a negligible 200 million bushels, while the 1985 crop increased U.S. ending stocks by over 2 billion bushels. Consequently, because of the inventory buildup, the proportion of the corn crop moving into commercial and export channels was lower in 1985 than in 1977. It should be recognized that this influenced both end use and export grain flows.

Nearly 3.3 billion bushels of corn was moved across state lines in 1985 and over 1.7 billion bushels of corn was exported. This compares with 2.6 billion bushels of interstate shipments in 1977 when approximately 1.6 billion bushels of corn were exported. Over 1.55 billion bushels were shipped across state lines to domestic end users in 1985 compared with less than 1 billion bushels of corn to domestic end users in 1977. The primary source for those comparisons is Hill, et al. 1

Trucks accounted for 693 million bushels of the interstate movement in 1985. Of the truck shipments, 98 million bushels went to export ports and 595 million bushels went to domestic uses. Railroads accounted for 1,538 million bushels of interstate shipments with 668 million bushels going to export ports and 870 million bushels to domestic users. River barges accounted for 1,052 million bushels of interstate shipments with

¹ Hill, Lowell D., Mack N. Leath and Stephan W. Fuller, <u>Corn Movements</u> in the <u>United States</u>, Illinois Bulletin #768, 1981.

959 million bushels going to export ports and 93 million bushels going to domestic users.

All three modes moved more corn across state lines in 1985 than in 1977, and there were no dramatic changes in the modal mix of the total domestic interstate and export shipments between 1977 and 1985. However, truck increased its share of total interstate shipments from 16.3 percent in 1977 to 21.1 percent in 1985. Total interstate rail shipments slipped from 49 percent to 46.8 percent. The barge industry's share of interstate movements slipped slightly from 34.7 percent to 32.0 percent. Considering just export movements trucking's share declined from 12.9 percent to 5.7 percent while the barge share of export movements increased from 50.3 percent to 55.6 percent. Rail's share of export shipments increased slightly from 36.7 percent to 38.7 percent. The shift from truck to barge for the movement to export ports is a consequence of the decrease in exports via the Great Lakes/St. Lawrence route which is covered in detail below.

Production Comparisons

Although corn is grown in almost every state, production remains concentrated in and near the historic Corn Belt. Figure 1 shows this concentration in 1982, the year of the last Census of Agriculture.

In 1985 as in 1977, six states (Iowa, Illinois, Nebraska, Indiana, Minnesota and Ohio) produced about 70 percent of the U.S. corn crop.

Table 1 indicates that in 1985, these states accounted for almost 75 percent of the interstate grain shipments and over 79 percent of exports. However, in 1977, the six states were even more important as corn shippers. That year, they accounted for over 85 percent of interstate corn shipments and almost 86 percent of the shipments to export ports. In

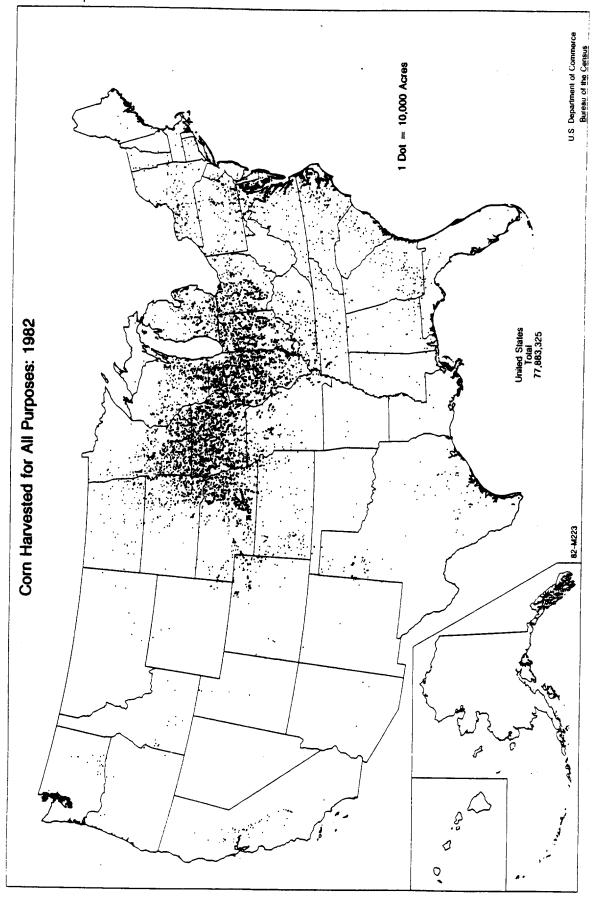


TABLE 1

1985 PRODUCTION BY STATE AND OUT-OF-STATE SHIPMENTS BY MODE (thousand bushels)

<u>State</u>	Total <u>Production</u>		Shipped by Rail	Barge	Total Shipped	Total Exported
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%

1977, unlike 1985, corn usage was about in line with supply so that change in carryout was negligible.

Along with the decline in the proportion of corn shipped from the six states, there have been shifts within the six, 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. However, in 1977, Illinois and Iowa accounted for over 35.1 percent of production, but over 54 percent of U.S. exports. Figure 2 shows some trends that have influenced the decline in the export share for Illinois and Iowa.

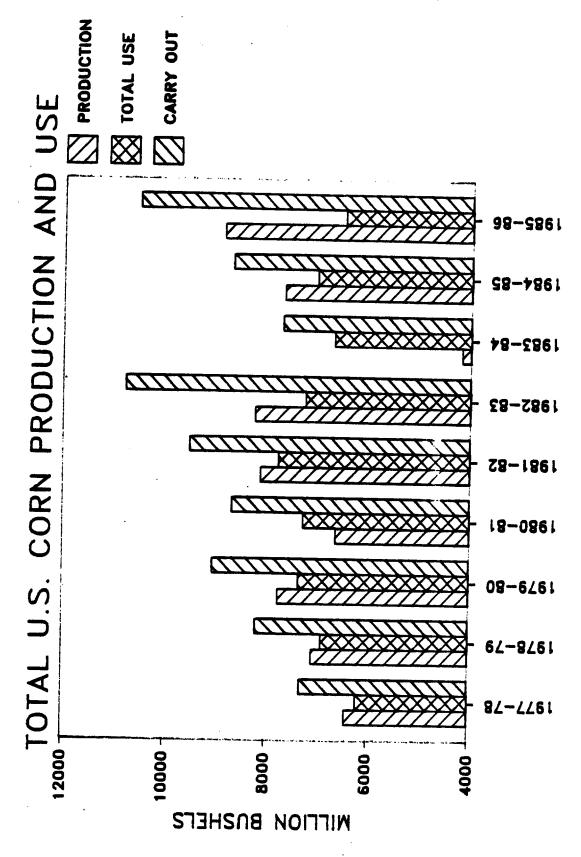
Corn production has been increasing steadily since 1977, except for the drought years of 1980 and 1983, but the total disappearance of 6.5 billion bushels of corn including exports was lower in 1985 than in any year since the 6.2 billion bushels were used in 1977. Figure 3 shows livestock feed use was about average in 1985. Food and alcohol use has increased every year and more than doubled between 1977 and 1985 to the 1.1 billion bushel level. The decline in total usage was due to the dramatic drop in exports in the mid-1980s.

Export Flows

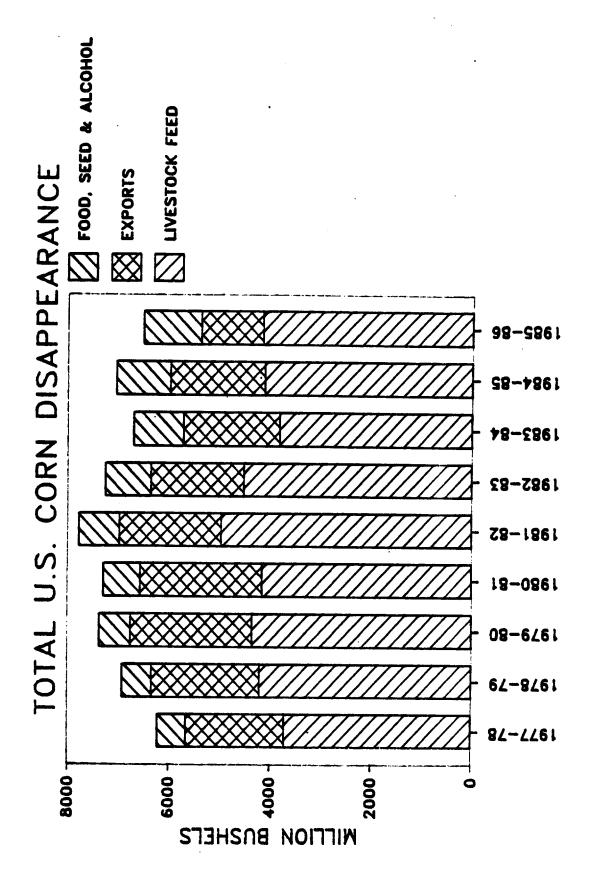
In 1985, our two largest export customers were the USSR which took 13 million tons of corn and Japan which took 11 million tons. Those two nations accounted for over 50 percent of U.S. corn exports while shipments to the original European Economic Community (EEC) were negligible in 1985. This structured change in the export demand impacted the volume and direction of export flows between the late 1970s and mid-1980s.

Figure 4 shows corn exports by port range for 1977, 1981 and 1985.

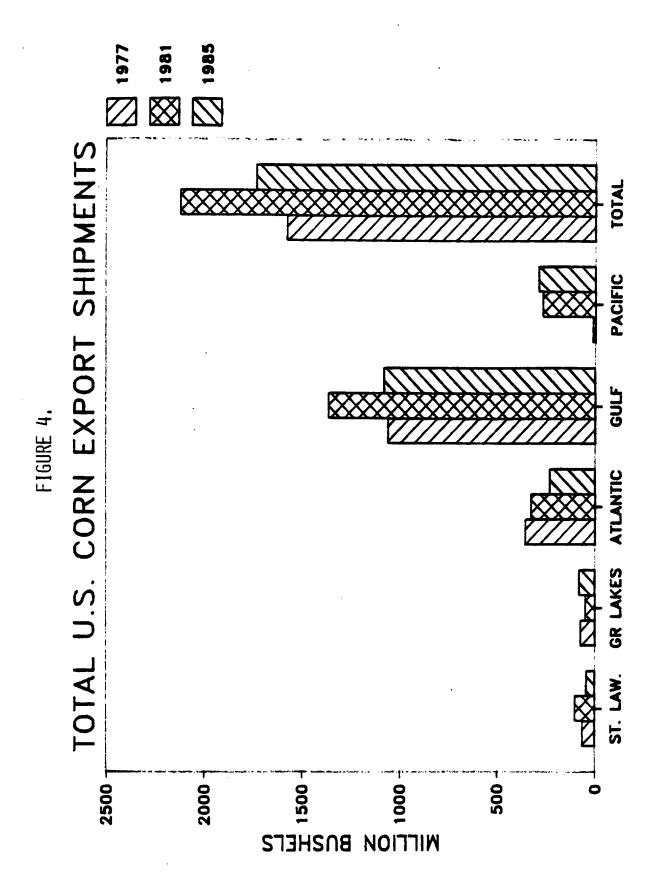
At first glance, the changes may not look dramatic enough to have a large



SOURCE: Agricultural Statistics



SOURCE: Agricultural Statistics



SOURCE: USDA/Grain and Feed News.

influence on transportation flows. However, detailed analysis of the export destinations proves otherwise.

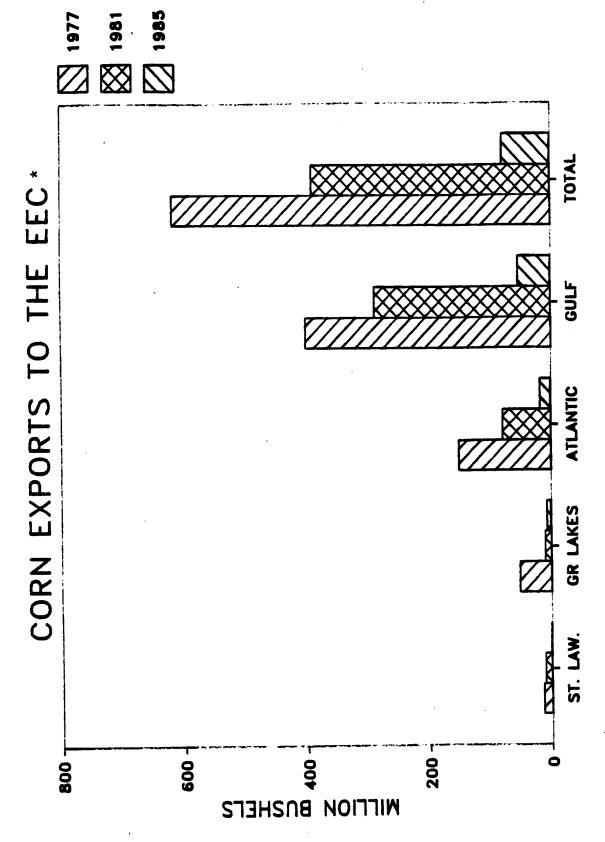
Figure 5 shows exports by port range to the EEC for the same three years. It demonstrates the loss of corn markets in the EEC as a result of the Common Agricultural Policy and other factors over the last ten years. Exports have declined from 618 million bushels in 1977 to 78 million bushels in 1985. All port ranges have lost volume due to the decline in the EEC market.

Figure 6 shows exports to the USSR and Eastern Europe for the same three years. Over the time period, exports to the Eastern Bloc were erratic unlike those to the EEC which had a clear downward trend. Unlike the Gulf ports, the Great Lakes/St. Lawrence Seaway and the Atlantic Ports were unable to increase their exports to the Eastern Bloc companies. The decline in corn exports to the EEC without an increase in shipments to the Eastern Bloc led to the decrease in Lake and Atlantic Range shipments between 1977 and 1985.

Figure 7 shows the situation for exports to Pacific Rim countries. All of the considerable increase in exports to the Pacific Rim countries from 1977 to 1985 appears to have been captured by the Pacific Northwest ports. In fact, the Atlantic ports slipped from 36 million bushels of Pacific Rim exports in 1977 to 2 million bushels in 1985.

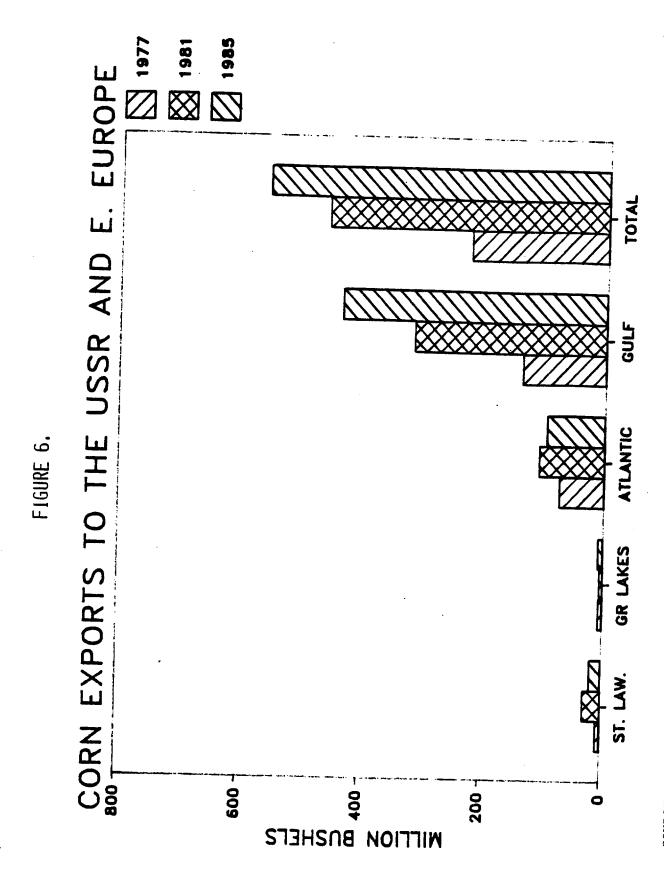
State Flows

The shaded states in Figure 8 accounted for about 98 percent of our corn exports in 1985. Illinois accounted for 30.1 percent of corn exports in 1985--down from 37.5 percent in 1977. The other five corn belt states mentioned earlier accounted for 9-12 percent of 1985 exports. Substantial shifts in export shares occurred in those states between 1977 and 1985.

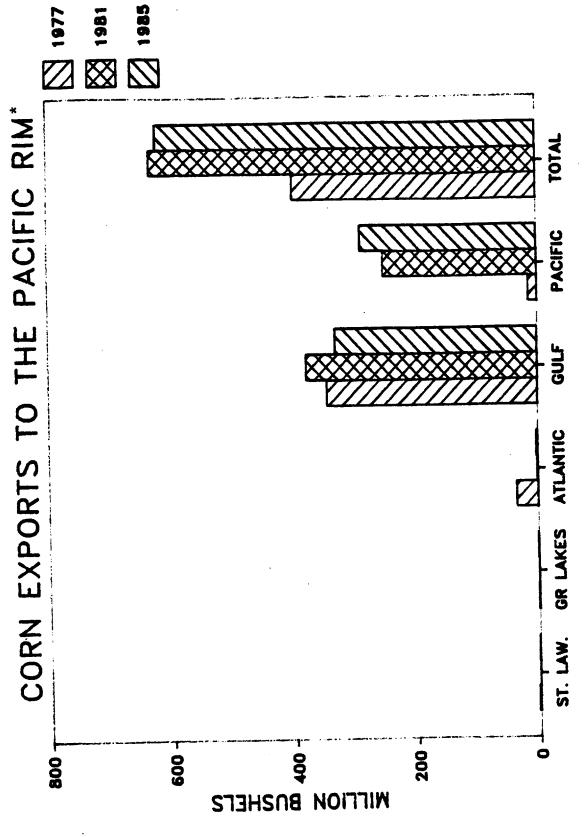


* Includes EC-10 for all years.

SOURCE: USDA/Grain and Feed News.



SOURCE: USDA/Grain and Feed News.



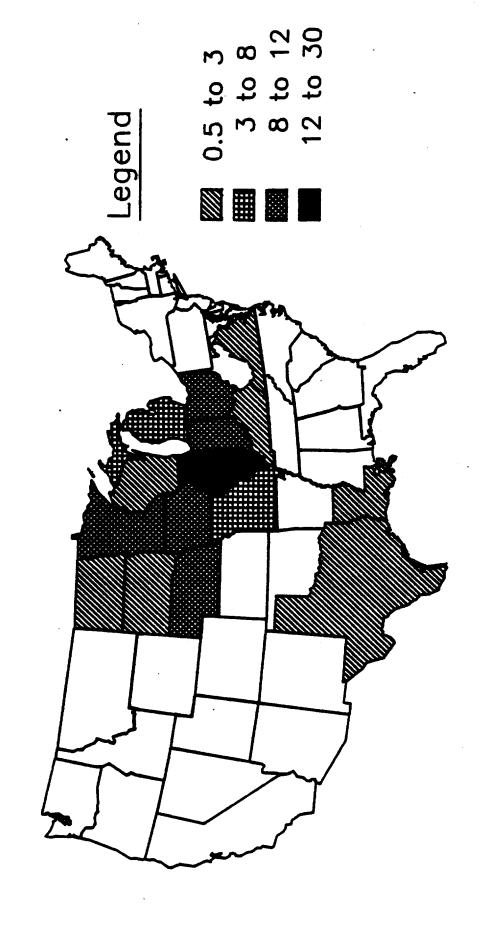
* Includes Japan, Taiwan, Macao, South Korea and Hong Kong.

SOURCE: USDA/Grain and Feed News

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FIGURE 8.

Percent of U.S. Exports by State Corn - 1985



Iowa slipped from 16.7 percent to 9.9 percent; Indiana went from 12.2 percent to 11.2 percent; and Ohio slipped 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. 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. This increase was entirely due to rail shipments to Pacific ports.

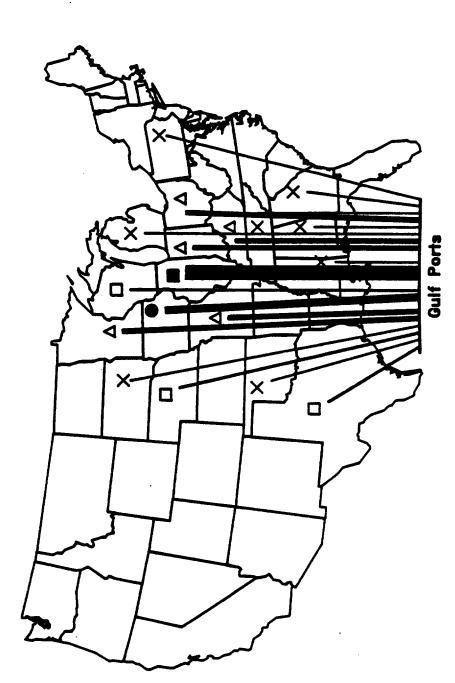
Of the remaining states, Michigan's share remained about constant at 3.0 percent while Missouri's share of exports increased from 1.8 percent to 4.7 percent in 1985. South Dakota's share of exports increased from a negligible .1 percent of exports in 1977 to 2.8 percent in 1985 as a result of rail shipments to the Pacific Coast (see Table 9).

Figure 9 shows the flow to the Gulf. The Gulf ports received 1,077 million bushels in 1985. Illinois and Iowa accounted for 512 million bushels and 127 million bushels of export shipments from the Gulf.

Minnesota, Missouri, Indiana, Kentucky and Ohio each shipped between 50 and 100 million bushels to Gulf ports for export in 1985. Gulf port receipts were nearly 88 percent by barge, 10.3 percent by rail, and less than 2 percent by truck. In 1977, Gulf export receipts were at about the same level of 1.1 billion bushels, but only 77.6 percent of the receipts were by barge with 22.0 percent by rail and .4 percent by truck; thus, there was a substantial increase in barge volume in 1985 from 1977 with rail losing both share and volume.

Figure 10 shows the shipments by state to the Atlantic and Pacific Ports. Atlantic ports received 233 million bushels. Indiana and Ohio

State Shipments to Gulf Ports Corn - 1985



0 to 7 14 to 28 50 to 98 127 512

State Shipments to Atlantic and Pacific Ports Corn - 1985

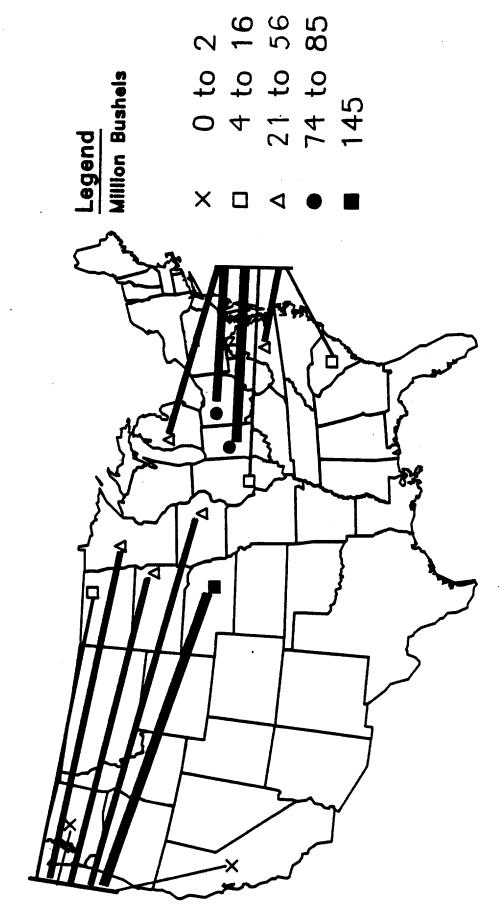


Table 2. 1985 Interstate Receipts of Corn for Each State

State	Truck	Rail	Barge	Total	
	(thou	sand of bush	nels)		
Alabama	9,754	36,964	41,648	88,366	
Arizona	1,930	5,246	0	7,176	
Arkansas	29,824	55,925	2,731	88,480	
California	0	74,898	0	74,898	
Colorado	15,738	11,508	0	27,246	
Delaware	15,636	2,401	0	18,037	
Florida	14,019	21,573	0	35,592	
Georgia	5,992	84,645	0	90,637	
Idaho	224	0	0	224	
Illinois	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	
Nevada	438	1,270	0	1,708	
New England	9,500	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	
N. Carolina	2,907	36,752	0	39,659	
N. 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	
S. Carolina	254	3,840	0	4,094	
S. 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	
W. Virginia	1,890	0	0	1,890	
Wisconsin	5,773	12,473	0	18,246	
Wyoming	5,878	0	0	5,878	
Total Volume	595,309	869,875	92,613	1,557,797	
% of Total	38.21%	55.84%	5.95%		

Table 3. 1985 Modal Split of Corn Receipts by State

Origin	Truck	Rail	Barge	Total
	(perc	ent by mode)		(000 bushels)
Alabama	11.04%	41.83%	47.13	
Arizona	26.90%	73.10%	0.00	
Arkansas	33.71%	63.21%	3.09	
California	0.00%	100.00%	0.00	**
Colorado	57.76%	42.24%	0.00	
Delaware	86.69%	13.31%	0.00	
Florida	39.39%	60.61%	0.00	
Georgia	6.61%	93.39%	0.00	
Idaho	100.00%	0.00%	0.00	
Illinois	47.91%	51.84%	0.26	
Indiana	60.35%	38.92%	0.73	
Iowa	75.19%	24.66%	0.15	
Kansas	75.19%	24.81%	0.00	
Kentucky	81.67%	17.76%	0.57	
Louisiana	27.54%	66.08%	6.38	
Maryland	73.82%	25.72%	0.47	
Michigan	100.00%	0.00%	0.00	
Minnesota	76.92%	22.81%	0.27	
Mississippi	8.72%	87.47%	3.81	
Missouri	53.14%	46.37%	0.48	
Montana	12.06%	87.94%	0.00	
Nebraska	87.15%	12.85%	0.00	
Nevada	25.64%	74.36%	0.00	•
New England	20.91%	79.09%	0.00	8 45,437
New Jersey	98.38%	1.62%	0.00	
New Mexico	0.00%	100.00%	0.00	e 127
New York	13.66%	86.34%	0.00	
N. Carolina	7.33%	92.67%	0.00	
N. Dakota	79.42%	20.58%	0.00	
Ohio	59.84%	40.16%	0.00	
Oklanhoma	63.99%	36.01%	0.00) § 37,893
Oregon	0.00%	85.92%	14.08	8,453
Pennsylvania	30.41%	69.59%	0.00) % 27,547
S. Carolina	6.20%	93.80%	0.00	
S. Dakota	100.00%	0.00%	0.00	7,356
Tennessee	7.90%	54.80%	37.30)% 105,201
Texas	22.83%	73.87%	3.29	9% 130,271
Utah	80.56%	19.44%	0.00	
Virginia	46.21%	53.79%	0.00) % 19,999
Washington	0.00%	100.00%	0.00	0% 2,514
W. Virginia	100.00%	0.00%	0.00	0% 1,890
Wisconsin	31.64%	68.36%	0.00	
Wyoming	100.00%	0.00%	0.00	D% 5,878
,				

Table 4. 1985 Interstate Shipments of Corn by State

Origin	Production	Truck	Rail	Barge	Total		
		(thou	isand of bi	ushels)			
Alabama	24375	4130	3291	2885	10306		
California	46400	1402	0	0	1402		
Colorado	103555	7271	2732	Ö	10003		
Delaware	19075	8560	3526	ő	12086		
Florida	12350	2066	514	24	2604		
Georgia	81900	8726	16778	800	26304		
Illinois	1534950	49657	148066	469165	666888		
Indiana	756450	64587	243895	84562	393044		
Iowa	1707300	64699	183607	121530	369836		
Kansas	152100	14098	27290	47	41435		
Kentucky	159120	8442	21665	63701	93808		
Louisiana	23370	10201	0	11705	21906		
Maryland	70400	27548	4673	0	32221		
Michigan	286650	19921	74595	1310	95826		
Minnesota	724500	38984	154028	113584	306596		
Mississippi	7820	4144	400	1232	5776		
Missouri	272800	34448	36387	73484	144319		
Nebraska	953600	138876	307380	500	446756		
New Jersey	12540	807	1541	0	2348		
New York	68400	42	9278	ő	9320		
N. Carolina	128375	12079	9084	2460	23623		
N. Dakota	40320	8333	17888	0	26221		
Ohio	511810	47106	164780	66561	278447		
Oklahoma	6148	0	0	250	250		
Oregon	6600	0	880	1182	2062		
Pennsylvania	151800	20578	4783	50	25411		
S. Carolina	45760	8242	5931	0	14173		
S. Dakota	252000	25542	57294	ő	82836		
Tennesse	79380	5707	5991	7344	19042		
Texas	156450	7540	14980	99	22619		
Utah	1840	256	141	Ő	397		
Virginia	54450	10360	6122	8176	24658		
Washington	21600	0	1512	1359	2871		
W. Virginia	7665	Ŏ	0	312	312		
Wisconsin	358450	38875	8654	19349	66878		
All Other	36403	-	-	-	-		
Total Volume	8876706	693227	1537686	1051671	3282584		
% of Total		21.12%	46.84%	32.04%			

Table 5. 1985 Modal Split of Corn Shipments by State

Origin	Truck	Rail	Barge T	otal
		ent by mode)	· · · · · · · · · · · · · · · · · · ·	000 bushels)
Alabama	40.07%	31.93%	27.99%	10,306
California	100.00%	0.00%	0.00%	1,402
Colorado	72.69%	27.31%	800.0	10,003
Delaware	70.83%	29.17%	0.00%	12,086
Florida	79.34%	19.74%	0.92%	2,604
Georgia	33.17%	63.78%	3.04%	26,304
Illinois	7.45%	22.20%	70.35%	666,888
Indiana	16.43%	62.05%	21.51%	393,044
Iowa	17.49%	49.65%	32.86%	369,836
Kansas	34.02%	65.86%	0.11%	41,435
Kentucky	9.00%	23.10%	67.91%	93,808
Louisiana	46.57%	. 0.00%	53.43%	21,906
Maryland	85.50%	14.50%	0.00%	32,221
Michigan	20.79%	77.84%	1.37%	95,826
Minnesota	12.72%	50.24%	37.05%	306,596
Mississippi	71.75%	6.93%	21.33%	5,776
Missouri	23.87%	25.21%	50.92%	144,319
Nebraska	31.09%	68.80%	0.11%	446,756
New Jersey	34.37%	65.63%	0.00%	2,348
New York	0.45%	99.55%	0.00%	9,320
N. Carolina	51.13%	38.45%	10.41%	23,623
N. Dakota	31.78%	68.22%	0.00%	26,221
Ohio	16.92%	59.18%	23.90%	278,447
Oklahoma	0.00%	0.00%	100.00%	250
Oregon	0.00%	42.68%	57.32%	2,062
Pennsylvania	80.98%	18.82%	0.20%	25,411
S. Carolina	58.15%	41.85%	0.00%	14,173
S. Dakota	30.83%	69.17%	0.00%	82,836
Tennesse	29.97%	31.46%	38.57%	19,042
Texas	33.33%	66.23%	0.44%	22,619
Utah	64.48%	35.52%	0.00%	397
Virginia	42.01%	24.83%	33.16%	24,658
Washington	€00.0	52.66%	47.34%	2,871
W. Virginia	∙ 0.00%	9.00%	100.00%	312
Wisconsin	58.13%	12.94%	28.93%	66,878

Table 6. Export Regions, Port Areas, and the Ports Included in Each Area.

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		

Table 7. 1985 Receipts of Corn at Ports

Origin	Truck	Rail	Barge	Total
	(thou	usand of bush	nels)	
Great Lakes Regi	.on			
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
N. Texas Gulf	2,826	7,450	121	10,397
S. 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
% of Total	5.58%	38.76%	55.66%	

Table 8. 1985 Modal Split of Corn Receipts at Ports

Origin	Truck	Rail	Barge	Total
	(perc	ent by mode)		(000 bushels)
Great Lakes Regi	ion			
Duluth-Superior	17.86%	82.14%	0.00%	3,309
Chicago	81.30%	18.70%	0.00%	
Toledo	70.69%	29.31%	0.00%	,
Saginaw	49.72%	50.28%	0.00%	,
Subtotal	70.48%	29.52%	0.00%	-,
Atlantic Region				
North Atlantic	2.42%	97.58%	0.00%	21,673
South Atlantic	5.81%	89.18%	5.01%	,
Subtotal	5.50%	89.96%	4.54%	
Gulf Region				
East Gulf	5.56%	73.71%	20.73%	44,197
Louisiana Gulf	1.03%	6.47%		1,013,832
N. Texas Gulf	27.18%	71.66%		10,397
S. Texas Gulf	44.13%	55.87%		9,060
Subtotal	1.83%	10.27%		1,077,486
Pacific Region				
Columbia River	2.79%	96.37%	0.84%	160,408
Puget Sound	0.17%	99.83%	0.00%	115,146
California Ports	4.89%	95.11%	0.00%	19,688
Subtotal	1.91%	97.63%	0.46%	295,242
Direct Export	0.00%	100.00%	0.00%	34,853
Total Volume	5.58%	38.76%	55.66%	1,723,091

Table 9. 1985 Shipments of Corn to Export Elevators by State

	% of U.S							
Origin	Truck	Rail	Barge	Total	Export			
	(thousand of bushels)							
Alabama	1,330	0	2,785	4,115	0.24%			
California	962	0	0	962	0.06%			
Georgia	1,127	1,500	800	3,427	0.20%			
Illinois	1,594	66,795	450,427	518,816	30.11%			
Indiana	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%			
N. Carolina	0	3,065	2,460	5,525	0.32%			
N. 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%			
S. Carolina	3,941	0	0	3,941	0.23%			
S. 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%			
W. Virginia	0	0	312	312	0.02%			
Wisconsin	5,000	4,100	17,152	26,252	1.52%			
Total Volume	96,222	667,811	959,058	1,723,091				
% of Total	5.58%	38.76%	55.66%	i .				

Table 10. 1985 Modal Splits of Shipments of Corn to Export Elevators by State

Origin	Truck	Rail	Barge	Total
	(perc	ent by mode)		(000 bushels)
Alabama	32.32%	0.00%	67.68%	4,115
California	100.00%	0.00%	0.00%	
Georgia	32.89%	43.77%	23.34%	3,427
Illinois	0.31%	12.87%	86.82%	
Indiana	7.34%	53.37%	39.29%	•
Iowa	0.04%	34.60%	65.36%	
Kansas	0.00%	97.85%	2.15%	
Kentucky	0.00%	8.06%	91.94%	•
Louisiana	51.41%	0.00%	48.59%	
Michigan	17.15%	80.34%	2.52%	•
Minnesota	0.29%	40.03%	59.68%	•
Mississippi	67.73%	0.00%	32.27%	,
Missouri	0.00%	13.33%	86.67%	•
Nebraska	0.00%	99.69%	0.31%	•
N. Carolina	0.00%	55.48%	44.52%	· • -
N. Dakota	19.90%	80.10%	0.00%	•
Ohio	17.92%	46.23%	35.85%	•
Oklahoma	0.00%	9.00%	100.00%	
Oregon	0.00%	0.00%	100.00%	
Pennsylvania	0.00%	0.00%	100.00%	50
S. Carolina	100.00%	0.00%	0.00%	
S. Dakota	2.83%	97.17%	0.00%	47,391
Tennessee	0.00%	0.00%	100.00%	6,050
Texas	45.45%	53.88%	0.67%	14,847
Virginia	40.02%	20.76%	39.22%	20,710
Washington	0.00%	0.00%	100.00%	169
W. Virginia	0.00%	0.00%	100.00%	312
Wisconsin	19.05%	15.62%	65.34%	26,252
Total Volume	5.58%	38.76%	55.66%	1,723,091

shipped 84 and 74 million bushels by rail, respectively, to Atlantic range ports. Michigan shipped 36 million bushels by rail, and Virginia shipped 21 million by truck, rail and barge. Atlantic port receipts were 90 percent by rail, 5.5 percent by truck, and 4.5 percent by barge. The percentages by mode were similar in 1977.

Nebraska dominated shipments to the Pacific coast ports in 1985. It provided 145 million of the 295 million bushels of corn exported from the West Coast. Minnesota and shipped 56 million bushels, South Dakota shipped 46 million bushels and Iowa shipped 30 million bushels. Pacific port receipts were 98 percent rail. Pacific Coast exports were less than 15 million bushels in 1977.

Figure 11 shows the movement to Great Lakes ports in 1985. Lake and St. Lawrence Seaway exports were only 82 million bushels of corn in 1985. This was down from 142 million in 1977. Ohio provided 28 million bushels while Indiana provided about 25 million bushels. Michigan shipped nearly 15 million bushels while Iowa and Wisconsin each provided about 5 million. Great Lakes receipts were 70 percent truck and 30 percent rail. The 1977 modal split was 82 percent truck and 16 percent rail.

Modal Shares

Tables 4 and 5 show the out of state corn shipments by state and modal split in 1985. Nationally, 21 percent of interstate shipments moved by truck in 1985, 47 percent moved by rail, and 32 percent by barge. Of major shipments, Illinois shipped the highest percentages by barge, over 70 percent. Kentucky moved 68 percent by barge, and Missouri moved over 50 percent by barge. Michigan, Nebraska, South Dakota, North Dakota, and Kansas all moved over 68 percent by rail.

State Shipments to Great Lake Ports Corn - 1985



Conclusions

First, the most significant change in corn flows between 1977 and 1985 was the increase in exports from Pacific Ports. This was met by an increase in rail shipments from Nebraska, Minnesota, South Dakota and others. Since the total volume of export rail shipments of corn was about the same as in 1977, this meant that rail "bushel miles" of export corn had to increase substantially. Conversely, the decline in EEC demand has reduced corn movements to Great Lakes and Atlantic ports. The barge share of exports through Gulf Ports increased while rail to the Gulf decreased.

Second, the increase in domestic interstate movements between 1977 and 1985 was of the same magnitude as the increase in domestic processing for food and alcohol use. Trucks increased their share of this movement at the expense of rail.

Third, the size of the 1985 corn crop and the resulting 2 billion bushel increase in carryout stocks may have reduced both the volume of interstate movements and shipping distances, i.e., 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" in 1985 from the expected level in years when supply and demand are more in balance.

Appendix Table 1. Alabama, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Florida Georgia Illinois Indiana Iowa Kentucky Minnesota Missouri Nebraska Ohio	416 1,738 4,256 140 - 1,267 -	122 1,250 12,049 14,856 — 2,946 — 4,501	24 4,383 8,453 5,526 3,913 6,897 2,459	562 2,988 20,688 23,449 5,526 5,180 9,843 2,459 4,501
Tennessee Wisconsin Total Interstate	1,937 - 9,754	240 1,000 — 36,964	7,683 1,204 1,106 	7,923 4,141 1,106 88,366

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Florida Georgia Mississippi Tennessee East Gulf Louisiana Gulf	1,220 480 1,100 1,330	973 2,178 — 140 —	- 100 2,318 467	973 3,398 480 1,340 3,648 467
Total Interstate Intrastate	4,130 13,253	3,291 935	2,885	10,306
Total	17,383	4,226	5,196	26,805

Appendix Table 2. Arizona, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total			
(thousand of bushels)							
Indiana	_	257	_	257			
Iowa	_	661	-	661			
Kansas	30	486	_	. 516			
Missouri	_	1,078	_	1,078			
Nebraska	1,900	2,340	_	4,240			
Texas	_	424	-	424			
Total Interstate	1,930	5,246	_	7,176			

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thousa	and of bushels)		
Intrastate	1,787	1,244		3,031

Appendix Table 3. Arkansas, 1985:

Corn Receipts from Various Origins

Origin	Mode Truck	of Transportat Rail	ion Barge	Total
	(thous	and of bushels)		
Illinois	2,911	11,465	890	15,266
Indiana	<u> </u>	-	102	102
Iowa	7,883	9,830	467	18,180
Kansas	1,283	5,834	_	7,117
Kentucky	· 	, 	264	264
Minnesota	274	6,349	850	7,473
Mississippi	_	_	49	49
Missouri	12,836	4,330	109	17,275
Nebraska	3,845	15,313	-	19,158
S. Dakota	· -	2,248	_	2,248
Tennessee	_	140	_	140
Texas	792	280	_	1,072
Wisconsin	-	136	_	136
Total Interstate	29,824	55,925	2,731	88,480

Corn Shipments to Various Destinations

Mode of Transportation Origin Truck Rail Barge Total (thousand of bushels) Intrastate 3,610 - 3,610

Appendix Table 4. California, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Colorado		85	_	85
Iowa	_	14,358	-	14,358
Kansas	_	2,324	-	2,324
Minnesota	_	3,693		3,693
Missouri	_	967	_	967
Nebraska	_	48,854	-	48,854
Texas	-	4,534	_	4,534
Utah	-	83	-	83
Total Interstate	_	74,898	_	74,898

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thousand of bushels)			
Nevada Utah California Ports	412 28 962	- - -	- - -	412 28 962
Total Interstate	1,402	-	_	1,402
Intrastate	17,209	136	-	17,345
Total	18,611	136	_	18,747

Appendix Table 5. Colorado, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Kansas Missouri Nebraska Utah	435 150 15,147 6	125 — 11,383 —	- - -	560 150 26,530 6
Total Interstate	15,738	11,508		27,246

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
California	_	85	_	85
Kansas	446	_		446
Nebraska	150	208	_	358
Texas	-	1,354	_	1,354
Utah	6,675	330	_	7,005
Washington	· -	755	_	755
Total Interstate	7,271	2,732	_	10,003
Intrastate	9,042	_		9,042
Total	16,313	2,732	_	19,045

Appendix Table 6. Delaware, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thousa	and of bushels)		
Maryland	15,148	1,175		16,323
New Jersey	407	210	_	617
Ohio	_	552	_	552
Pennsylvania	81	323	_	404
Virginia	-	141	-	141
Total Interstate	15,636	2,401	_	18,037

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thousa	and of bushels)		
Maryland	6,618	268	-	6,886
New England		1,598	_	1,598
New Jersey	433	_	-	433
Pennsylvania	1,509	1,660	-	3,169
Total Interstate	8,560	3,526	_	12,086
Intrastate	13,713	-	-	13,713
Total	22,273	3,526	_	25,799

Appendix Table 7. Florida, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Alabama	_	973	_	973
Georgia	5,587	12,127	_	17,714
Illinois	_	487	_	487
Indiana	_	2,739	_	2,739
Kentucky	1,044	2,816	_	3,860
N. Carolina	7,388	129	_	7,517
Ohio	_	633	_	633
S. Carolina	-	1,281	-	1,281
Tennessee	_	247		247
Texas	-	141		141
Total Interstate	14,019	21,573	-	35,592

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thousa	and of bushels)		
Alabama Georgia Mississippi	416 1,450 200	122 264 128	24 - -	562 1,714 328
Total Interstate	2,066	514	24	2,604
Intrastate	2,000	620	_	2,620
Total	4,066	1,134	24	5,224

Appendix Table 8. Georgia, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Alabama	1,220	2,178	-	3,398
Florida	1,450	264	-	1,714
Illinois	-	11,798	_	11,798
Indiana	_	53,349	-	53,349
Kentucky	277	6,400	-	6,677
Michigan	_	45	-	45
Mississippi	_	120	_	120
N. Carolina	_	622		622
Ohio	_	6,185	-	6,185
S. Carolina	2,805	3,045	_	5,850
Tennessee	240	502	_	742
Texas	-	137	_	137
Total Interstate	5,992	84,645	_	90,637

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total		
(thousand of bushels)						
Alabama	1,738	1,250	_	2,988		
Florida	5,587	12,127	_	17,714		
Maryland	_	184	-	184		
Mississippi	_	604	_	604		
N. Carolina	_	318	_	318		
S. Carolina	254	395	_	649		
Tennessee	20	300		320		
Virginia	_	100	_	100		
East Gulf	1,127	1,500	800	3,427		
Total Interstate	8,726	16,778	800	26,304		
Intrastate	8,939	8,292		17,231		
Total	17,665	25,070	800	43,535		

Appendix Table 9. Idaho, 1985:

Corn Receipts from Various Origins

	Mode of Transportation			
Origin	Truck	Rail	Barge	Total
	(thous:	and of bushels)	
Utah	224	-	-	224
Total	224	_	_	224

Corn Shipments to Various Destinations

Mode of Transportation Origin Truck Rail Barge Total (thousand of bushels)

613

613

Intrastate

Appendix Table 10a. Illinois, 1985:

Corn Receipts from Various Origins

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

Appendix Table 10b. Illinois, 1985:

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total	
	(thou	sand of bushel	s)		
	•		,		
Alabama	4,256	12,049	4,383	20,688	
Arkansas	2,911	11,465	890	15,266	
Florida	-	487	_	487	
Georgia	-	11,798		11,798	
Indiana	3,676	5,904	102	9,682	
Iowa	20,275	-		20,275	
Kentucky	91	418	-	509	
Louisiana	-	-	381	381	
Maryland	-	2,272		2,272	
Mississippi	218	30,419	884	31,521	
Missouri	14,133	462	108	14,703	
New England	-	350	_	350	
New York	-	420	_	420	
Ohio	507	861	-	1,368	
Pennsylvania	1,834	1,100	-	2,934	
Tennessee	162	2,030	11,990		
Texas	_	886	_	886	
Wisconsin	_	350	_	350	
Chicago	1,594	266	-	1,860	
South Atlantic		5,045	_	5,045	
East Gulf	_	7,091	1,667		
Louisiana Gulf	-	54,393	448,697		
N. Texas Gulf	_	_	63	63	
Total Interstate	49,657	148,066	469,165	666,888	
Intrastate	459,165	75,519	486	535,170	
Total	508,822	223,585	469,651	1,202,058	

Appendix Table 11a. Indiana, 1985:

Corn Receipts from Various Origins

				· 	
Origin	Truck	Rail	Barge	Total	
(thousand of bushels)					
Illinois	3,676	5,904	102	9,682	
Iowa	_	345	_	345	
Kentucky	43	126	49	218	
Michigan	5,392	1,478	-	6,870	
Minnesota		1,358	53	1,411	
Ohio	7,772	644	_	8,416	
Tennessee	_	131	-	131	
Wisconsin	_	900	_	900	
Total Interstate	16,883	10,886	204	27,973	

Appendix Table 11b. Indiana, 1985:

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(tho	usand of bushels)	
Alabama	140	14,856	8,453	23,449
Arizona	-	257		257
Arkansas			102	102
Florida	_	2,739		2,739
Georgia	_	53,349	_	53,349
Illinois	15,976	18,723	_	34,699
Kentucky	10,877	3,755	50	14,682
Michigan	44	, -	_	44
Mississippi	_	_	160	160
Missouri	243	_	53	296
New England	_	2,521	_	2,521
New York	_	638	_	638
N. Carolina	_	2,436	_	2,436
Ohio	20,975	13,978	_	34,953
Pennsylvania	258	129	_	34,333
S. Carolina	-	108		108
Tennessee	1,976	27,838	228	
Chicago	9,494	-		9,494
Toledo	4,604	10,305	_	14,909
North Atlantic	· -	7,544	_	7,544
South Atlantic	-	76,697		76,697
East Gulf	_	5,483	_	5,483
Louisiana Gulf	_	2,539	75,516	78,055
Total Interstate	64,587	243,895	84,562	393,044
Intrastate	196,590	291,645	_	488,235
Total	261,177	535,540	84,562	881,279

Appendix Table 12a. lowa, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total
	(thousa	and of bushels)		
Illinois	20,275	_	. 	20,275
Kentucky	· -	-	60	60
Minnesota	15,734	16,882	_	32,616
Missouri	4,618	300	_	4,918
Nebraska	11	882	_	893
S. Dakota	14,225	_	_	14,225
Wisconsin	2,950	894	55	3,899
Total Interstate	57,813	18,958	115	76,886

Appendix Table 12b. lowa, 1985:

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thou	sand of bushels	s)	
Alabama	_	_	5,526	5,526
Arizona	-	661	J,J20	661
Arkansas	7,883	9,830	467	18,180
California	· -	14,358		14,358
Illinois	16,150	38,211	105	54,466
Indiana	· -	345		34,400
Kansas	884	1,019	-	1,903
Louisiana	_	3,664	-	3,664
Minnesota	3,882	288	_	4,170
Missouri	18,151	30,026	_	48,177
Nebraska	12,612	2,777		15,389
New York	· -	700	_	700
Oklahoma	_	1,948		1,948
S. Dakota	2,456	, –		2,456
Tennessee	· -	1,260	3,745	5,005
Texas	510	12,986	-,,,,,	13,496
Utah	_	14	_	13,430
Wisconsin	2,095	6,395	_	8,490
Duluth-Superior	· -	94	. ***	94
Chicago	_	3,435	_	3,435
Saginaw	-	1,247	_	1,247
East Gulf	_	5,003	754	5,757
Louisiana Gulf		4,915	110,875	115,790
N. Texas Gulf	76	4,400	58	4,534
S. Texas Gulf	_	1,240	_	1,240
Columbia River	_	18,469	_	18,469
Puget Sound	-	7,382	_	7,382
California Ports	-	4,100	_	4,100
Direct Exports	-	8,840	-	8,840
Total Interstate	64,699	183,607	121,530	369,836
Intrastate	311,049	108,329	58	419,436
Total	375,748	291,936	121,588	789,272

Appendix Table 13. Kansas, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total		
(thousand of bushels)						
Colorado	446	_	_	446		
Iowa	884	1,019	_	1,903		
Missouri	128	1,584		1,712		
Nebraska	61,738	14,625	_	76,363		
S. Dakota	· -	3,248	_	3,248		
Texas		378	-	378		
Total Interstate	63,196	20,854	-	84,050		

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Arizona	30	486	_	516
Arkansas	1,283	5,834	_	7,117
California	· -	2,324	_	2,324
Colorado	435	125	_	560
Missouri	5,000	214	-	5,214
Nebraska	794	-	_	794
Oklahoma	1,962	2,033	_	3,995
Texas	4,594	14,130		18,724
Louisiana Gulf	_	· -	47	47
Direct Export	-	2,144	_	2,144
Total Interstate	14,098	27,290	47	41,435
Intrastate	19,719	420		20,139
Total	33,817	27,710	47	61,574

Appendix Table 14a. Kentucky, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total
	(thousa	and of bushels)		
Illinois	91	418	_	509
Indiana	10,877	3,755	50	14,682
Louisiana	_	· -	46	46
Missouri	_	-	54	54
Ohio	7,576	424	_	8,000
Tennessee	3,000	88	-	3,088
Total Interstate	21,544	4,685	150	26,379

Appendix Table 14b. Kentucky, 1985:

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(tho	ousand of bush	els)	
Alabama	1,267	_	3,913	5,180
Arkansas			264	264
Florida	1,044	2,816	-	3,860
Georgia	277	6,400	-	6,677
Illinois	25	_		25
Indiana	43	126	49	218
Iowa	_		60	60
Louisiana	_	141	-	141
Minnesota	-		57	57
Mississippi	866	1,429	268	2,563
N. Carolina	_	489	-	489
Ohio	99	_	_	99
S. Carolina	_	487	-	487
Tennessee	4,688	. 5,381	8,953	19,022
W. Virginia	133	· -	·	133
East Gulf	_	4,396	-	4,396
Louisiana Gulf	٠ _	· -	50,137	50,137
Total Interstate	8,442	21,665	63,701	93,808
Intrastate	7,555	-	-	7,555
Total	15,997	21,665	63,701	101,363
	•	•	•	

Appendix Table 15. Louisiana, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thousa	and of bushels)		
Illinois Iowa Kentucky Mississippi	_ _ _ 1,644	3,664 . 141 140	381 - - -	381 3,664 141 1,784
Total Interstate	1,644	3,945	381	5,970

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thousa	nd of bushels)		
Kentucky Mississippi Texas Louisiana Gulf	- 2,187 104 7,910	- - - -	46 - 4,183 7,476	46 2,187 4,287 15,386
Total Interstate	10,201	-	11,705	21,906
Intrastate 2	2,693	852	7,476	11,021
Total	12,894	852	19,181	32,927

Appendix Table 16. Maryland, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin				
	Truck	Rail	Barge	Total
	(thousa	and of bushels)		
Delaware	6,618	268	_	6,886
Georgia	-	184	_	184
Illinois		2,272	_	2,272
New Jersey		128	_	128
Ohio	140	_	_	140
Pennsylvania	1,796	128	_	1,924
Virginia	_	_	54	54

Total Interstate	8,554	2,980	54	11,588

Corn Shipments to Various Destinations

	- '	n.:1	Pares	Total
Origin	Truck	Rail	Barge	TOCAL
	(thousa	and of bushels)		
Delaware	15,148	1,175 948	_	16,323 5,948
New England Pennsylvania	5,000 2,300	2,410	_	4,710
Virginia	5,100	140	_	5,240
			•	
Total Interstate	27,548	4,673		32,221
Intrastate	12,977	103	-	13,080
Total	40,525	4,776	-	45,301

Appendix Table 17. Michigan, 1985:

Corn Receipts from Various Origins

Mode of Transportation

		-		
Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)	
Indiana	44	_		44
Total Interstate	44	_	_	44

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total	
	(thous	and of bushels))		
Georgia	-	45	_	45	
Illinois	197	_	_	197	
Indiana	5,392	1,478			
New England	_	16,879	_	6,870	
New York	_	2,134	_	16,879	
Ohio	5,402	5,707		2,134	
Pennsylvania	-	162	-	11,109	
Tennessee		6,349	_	162	
Toledo	. 7,172	•	_	6,349	
Saginaw	1,233	6,361	_	13,533	
North Atlantic	525	- -	-	1,233	
South Atlantic	525	5,500	_	6,025	
Louisiana Gulf	_	29,980	_	29,980	
Eddisiana Guii	_	-	1,310	1,310	
Total Interstate	19,921	74,595	1,310	95,826	
Intrastate	4,987	409		5,396	
Total	24,908	75,004	1,310	101.222	

Appendix Table 18a. Minnesota, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total
	(thousa	nd of bushels)		
Iowa	3,882	288	_	4,170
Kentucky	· -	_	57	57
N. Dakota	2,243	3,677	-	5,920
S. Dakota	1,084	831		1,915
Wisconsin	8,963	-	-	8,963
Total Interstate	16,172	4,796	57	21,025

Appendix Table 18b. Minnesota, 1985:

Corn Shipments to Various Destinations

•	11000	or transporta		
Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)	
Alabama	_	2,946	6,897	•
Arkansas	274	6,349	850	7,473
California		3,693		3,693
Illinois	_	8,494	59	8,553
Indiana	_	1,358	53	1,411
Iowa	15,734	16,882	_	32,616
Mississippi	_	3,000	438	3,438
Missouri	- .	. -	109	109
Montana	_	9,000	_	9,000
N. Dakota	14,961	4,500	_	19,461
Oregon	· -	3,482	_	3,482
S. Dakota	1,281	_	_	1,281
Tennessee	· -	_	10,509	10,509
Texas	1,274	25,136	53	26,463
Wisconsin	3,678	5,728	_	9,406
Wyoming	1,324	· -	-	1,324
Duluth-Superior	458	2,267	_	2,725
East Gulf	-	2,946	3,208	6,154
Louisiana Gulf	_	· -	91,408	91,408
Columbia River	_	18,013	_	18,013
Puget Sound		38,058	_	38,058
Direct Export		2,176	_	2,176
Total Interstate	38,984	154,028	113,584	306,596
Intrastate	109,911	35,974	-	145,885
Total	148,895	190,002	113,584	452,481

Appendix Table 19. Mississippi, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Alabama	480	_	_	480
Florida	200	128	_	328
Georgia	-	604	_	604
Illinois	218	30,419	884	31,521
Indiana	_	· -	160	160
Kentucky	866	1,429	268	2,563
Louisiana	2,187	-	_	2,187
Minnesota		3,000	438	3,438
Missouri	155	-	_	155
Nebraska	-	779	_	779
N. Carolina	_	688	-	688
Ohio	_	120	-	120
Tennessee	30	3,762		3,792
Texas	-	560		560
Wisconsin		_	57	57
Total Interstate	4,136	41,489	1,807	47,432

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
,	(thous	and of bushels)		
Arkansas	_	_	49	49
Georgia	_	120	_	120
Illinois	-	140	_	140
Louisiana	1,644	140	_	1,784
Tennessee	17	-	_	17
Louisiana Gulf	2,483	-	1,183	3,666
Total Interstate	4,144	400	1,232	5,776
Intrastate	2,424	847	-	3,271
Total	6,568	1,247	1,232	9,047

Appendix Table 20a. Missouri, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		******
Illinois	14,133	462	108	14,703
Indiana	243	_	53	296
Iowa	18,151	30,026	_	48,177
Kansas	5,000	214	_	5,214
Minnesota	-	_	109	109
Nebraska	5,605	7,067	_	12,672
Ohio	-	-	127	127
S. Dakota	-	303	_	303
Tennessee	500	_	_	500
Total Interstate	43,632	38,072	397	82,101

Appendix Table 20b. Missouri, 1985:

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thous	sand of bushe	ls)	
Alabama	_		2,459	2,459
Arizona	_	1,078	-	1,078
Arkansas	12,836	4,330	109	17,275
California	_	967	-	967
Colorado	150	_		150
Illinois	10,561	1,000	95	•
Iowa	4,618	300	-	4,918
Kansas	128	1,584	-	1,712
Kentucky	_	-	54	54
Mississippi	155	_	_	155
Nebraska	6,000		-	6,000
Oklahoma	· -	669	-	669
Tennessee	_	_	992	992
Texas	_	14,983	-	14,983
Washington	_	741	-	741
East Gulf	-	_	417	417
Louisiana Gulf	_	3,752	69,358	73,110
Direct Export	_	6,983	_	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

Appendix Table 21. Montana, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Minnesota N. Dakota S. Dakota	- 1,534	9,000 273 1,915	- - -	9,000 273 3,449
Total Interstate	1,534	11,188	_	12,722

Appendix Table 22a. Nebraska, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total
	(thousa	and of bushels)		
Colorado Iowa Kansas Missouri S. Dakota	150 12,612 794 6,000 4,079	208 2,777 — — 500	- - - -	358 15,389 794 6,000 4,579
Total Interstate	23,635	3,485	-	27,120

Appendix Table 22b. Nebraska, 1985:

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(the	ousand of bush	els)	
Alabama	-	4,501	_	4,501
Arizona	1,900	2,340	-	4,240
Arkansas	3,845	15,313	-	19,158
California	_	48,854	_	48,854
Colorado	15,147	11,383	-	26,530
Illinois	_	752	_	752
Iowa	11	882	-	893
Kansas	61,738	14,625	_	76,363
Mississippi	_	779	_	779
Missouri	5,605	7,067	-	12,672
Nevada	_	1,212	_	1,212
New Mexico	_	127	_	127
Oklahoma	22,286	8,793	-	31,079
Oregon	· -	1,521		1,521
S. Dakota	991	·	_	991
Texas	23,256	25,512	-	48,768
Utah	415	1,374	-	1,789
Wyoming	3,682	-	_	3,682
East Gulf	_	5,168	-	5,168
Louisiana Gulf	_	· -	500	500
N. Texas Gulf	_	1,300	_	1,300
S. Texas Gulf	_	2,474	_	2,474
Columbia River	_	81,718		81,718
Puget Sound	_	48,585	-	48,585
California Ports	_	14,626	_	14,626
Direct Export	_	8,474	_	8,474
•				
Total Interstate	138,876	307,380	500	446,756
Intrastate	166,072	8,089		174,161
Total	304,948	315,469	500	620,917

Appendix Table 23. Nevada, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
California Nebraska Utah	412 - 26	_ 1,212 58	- - 	412 1,212 84
Total Interstate	438	1,270	_	1,708

Appendix Table 24. New England, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		*****
Delaware	· <u>-</u>	1,598	_	1,598
Illinois	_	350	· –	350
Indiana	_	2,521	_	2,521
Maryland	5,000	948	_	5,948
Michigan	-	16,879	_	16,879
New York		9,194	_	9,194
Ohio	-	1,992	-	1,992
Pennsylvania	4,500	2,455	-	6,955
•••••••				
Total Interstate	9,500	35,937	-	45,437

Appendix Table 25. New Jersey, 1985:

Corn Receipts from Various Origins

Mode of Transportation

		· ·		
Origin	Truck	Rail	Barge	Total
	(thousa	and of bushels)		
Delaware	433	_	_	433
Pennsylvania	4,485	81 [.]	-	4,566
Total Interstate	4,918	81	_	4,999

Corn Shipments to Various Destinations

		<u>-</u>		
Origin	Truck	Rail	Barge	Total
	(thousa	and of bushels)		
Delaware	407	210	_	617
Maryland	-	128	_	128
New York	30	-	_	30
N. Carolina	_	203	-	203
Pennsylvania	370	1,000	_	1,370
Total Interstate	807	1,541		2,348

Appendix Table 26. New Mexico, 1985:

Corn Receipts from Various Origins

	_	
Mode	οf	Transportation

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Nebraska	-	127	_	127
Total Interstate	_	127	-	127

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thousa	and of bushels)		
Intrastate	37	_	***	37

Appendix Table 27. New York, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Illinois	_	420	_	420
Indiana	-	638	_	638
Iowa	-	700	_	. 700
Michigan	-	2,134	_	2,134
New Jersey	30	-	_	30
Ohio	184	15,141	-	15,325
Pennsylvania	2,902	668	_	3,570
Total Interstate	3,116	19,701	_	22,817

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
New England Pennsylvania	– 42	9,194 84	<u>-</u>	9,194 126
Total Interstate	42	9,278		9,320
Intrastate	7,504	.4,794	-	12,298
Total	7,546	14,072	_	21,618

Appendix Table 28. N. Carolina, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Georgia	_	318	_	318
Indiana	_	2,436	_	2,436
Kentucky	_	489		489
New Jersey	_	203	_	203
Ohio	33	29,877	_	29,910
Pennsylvania	_	1,128	_	1,128
S. Carolina	1,459	1,232	_	2,691
Texas	-	388	_	388
Virginia	1,415	681	_	2,096
Total Interstate	2,907	36,752	_	39,659

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thousa	and of bushels)		
Florida	7,388	129	_	7,517
Georgia	· -	622	_	622
Mississippi	_	688	_	688
S. Carolina	1,696	515	_	2,211
Virginia	2,995	4,065	_	7,060
South Atlantic	_	3,065	2,460	5,525
Total Interstate	12,079	9,084	2,460	23,623
Intrastate	955	5,786	-	6,741
Total	13,034	14,870	2,460	30,364

Appendix Table 29. N. Dakota, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)	• • • • • • • • •	
Minnesota S. Dakota	14,961 2,400	4,500 ~	- -	19,461 2,400
Total Interstate	17,361	4,500		21,861

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thousand of bushels)			
Minnesota	2,243	3,677	_	5,920
Montana	-	273	_	273
S. Dakota	2,628		_	2,628
Duluth-Superior	133	357	_	490
Columbia River	3,137	3,348	_	6,485
Puget Sound	192	8,899	_	9.091
Direct Export	_	1,334	-	1,334
Total Interstate	8,333	17,888	_	26,221

Appendix Table 30a. Ohio, 1985:

· Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total
(thousand of bushels)				
Illinois	507	861	_	1,368
Indiana	20,975	13,978		34,953
Kentucky	99	· -	_	99
Michigan	5,402	5,707	_	11,109
Pennsylvania	5,094	· -	_	5,094
Virginia	31	1,000	_	1,031
Total Interstate	32,108 ⁻	21,546		53,654

Appendix Table 30b. Ohio, 1985:

Corn Shipments to Various Destinations

	*				
Origin	Truck	Rail	Barge	Total	
(thousand of bushels)					
Alabama	_	240	7,683	7,923	
Delaware	-	552	_	552	
Florida	_	633	_	633	
Georgia	_	6,185	_	6,185	
Illinois	-	126	-	126	
Indiana	7,772	644	_	8,416	
Kentucky	7,576	424	_	8,000	
Maryland	140	-	-	140	
Mississippi	· -	120	-	120	
Missouri		-	127		
New England		1,992	-	1,992	
New York	184	15,141	-	15,325	
N. Carolina	33	29,877	_	29,910	
Pennsylvania	1,515	12,625	_	14,140	
S. Carolina	_	2,335	_	2,335	
Tennessee	267	14,356	1,798		
Virginia	1,146	6,080	-	7,226	
Toledo	28,417		-	28,417	
North Atlantic	-	4,004		4,004	
South Atlantic	56	69,446		69,502	
Louisiana Gulf	-	_	56,953	56,953	
Total Interstate	47,106	164,780	66,561	278,447	
Intrastate	82,093	20,372	_	102,465	
Total	129,199	185,152	66,561	380,912	

Appendix Table 31. Oklahoma, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Iowa	_	1,948	_	1,948
Kansas	1,962	2,033	_	3,995
Missouri	· 	669	_	669
Nebraska	22,286	8,793	-	31,079
S. Dakota	_	202	-	202
Total Interstate	24,248	13,645		37,893

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		 ,
Louisiana Gulf	_	-	250	250
Total Interstate	-	_	250	250

Appendix Table 32. Oregon, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin				
	Truck	Rail	Barge	Total
	(thousa	and of bushels)		
Minnesota	_	3,482	_	3,482
Nebraska	_	1,521	-	1,521
S. Dakota	-	748	_	748
Washington	-	1,512	1,190	2,702
Total Interstate	_	7,263	1,190	8,453

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Washington Columbia River	<u>-</u> -	880	<u> </u>	880 1,182
Total Interstate	_	880	1,182	2,062
Intrastate	· <u>-</u>	1,082	-	1,082
Total	_	1,962	1,182	3,144

Appendix Table 33. Pennsylvania, 1985:

Corn Receipts from Various Origins

Mode of Transportation

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

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Delaware	81	323	_	404
Maryland	1,796	128	_	1,924
New England	4,500	2,455		6,955
New Jersey	4,485	81	_	4,566
New York	2,902	668	-	3,570
N. Carolina	-	1,128	_	1,128
Ohio	5,094	· -	_	5,094
W. Virginia	1,720	-	_	1,720
Louisiana Gulf	_		50	50
Total Interstate	20,578	4,783	50	25,411
Intrastate	23,514	473	-	23,987
Total	44,092	5,256	50	49,398

Appendix Table 34. S. Carolina, 1985:

Corn Receipts from Various Origins

Mode of Transportation

1				
Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Georgia	254	395	_	649
Indiana	_	108	-	108
Kentucky	_	487	_	487
N. Carolina	_	515	_	515
Ohio	_	2,335		2,335
Total Interstate	254	3,840	_	4,094

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thousa	and of bushels)		
Florida Georgia N. Carolina Virginia W. Virginia South Atlantic	2,805 1,459 — 37 3,941	1,281 3,045 1,232 373	- - - -	1,281 5,850 2,691 373 37 3,941
Total Interstate Intrastate	8,242 4,489	5,931 4,215	- -	14,173 8,704
Total	12,731	10,146	_	22,877

Appendix Table 35. S. Dakota, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Iowa	2,456	_	_	2,456
Minnesota	1,281	-	· _	1,281
Nebraska	991	-	_	991
N. Dakota	2,628	-	_	2,628

Total Interstate	7,356	-	_	7,356

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total	
(thousand of bushels)					
Arkansas	****	2,248	_	2,248	
Iowa	14,225	· -	_	14,225	
Kansas	_	3,248		3,248	
Minnesota	1,084	831	_	1,915	
Missouri	· –	303	_	303	
Montana	1,534	1,915	_	3,449	
Nebraska	4,079	500		4,579	
N. Dakota	2,400	_	_	2,400	
Oklahoma	-	202	_	202	
Oregon	_	748	_	748	
Texas	6	1,250		1,256	
Wyoming	872	_	_	872	
East Gulf	_	989		989	
Columbia River	1,342	33,030	_	34,372	
Puget Sound	, <u> </u>	12,030	_	12,030	
Total Interstate	25,542	57,294	-	82,836	
Intrastate	29,901	_	-	29,901	
Total	55,443	57,294		112,737	

Appendix Table 36a. Tennessee, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total	
	(thousand of bushels)				
Alabama	1,100	140	100	1,340	
Georgia	20	300	- ·	320	
Illinois	162	2,030	11,990	14,182	
Indiana	1,976	27,838	228	30,042	
Iowa		1,260	3,745	5,005	
Kentucky	4,688	5,381	8,953	19,022	
Michigan		6,349	· -	6,349	
Minnesota	_	_	10,509	10,509	
Mississippi	1.7		_	17	
7-			992	992	
Missouri	267 .	14,356	1,798	16,421	
Ohio	77	_	,	77	
Virginia	//		925	925	
Wisconsin	-		,25	,,,,	
Total Interstate	8,307	57,654	39,240	105,201	

Appendix Table 36b. Tennessee, 1985:

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(the	usand of bush	els)	
Alabama	1,937	1,000	1,204	4,141
Arkansas	· -	140	1,204	140
Florida	_	247	_	
Georgia	240	502		247
Illinois	_	121	- 00	742
Indiana	-	131	90	211
Kentucky	3,000	88	_	131
Mississippi	30		-	3,088
Missouri	500	3,762	_	3,792
Louisiana Gulf	500	-		500
		-	6,050	6,050
Total Interstate	5,707	5,991	7,344	19,042
Intrastate	6,332	1,488	-	7,820
Total	12,039	7,479	7,344	26,862

Appendix Table 37a. Texas, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total
	(thousa	and of bushels)		
Colorado		1,354	-	1,354
Illinois	-	886	-	886
	510	12,986	_	13,496
Iowa	4,594	14,130	-	18,724
Kansas	104		4,183	4,287
Louisiana		25 126	53	26,463
Minnesota	1,274	25,136		14,983
Missouri	-	14,983	_	•
Nebraska	23,256	25,512	_	48,768
S. Dakota	6	1,250	_	1,256
Wisconsin		_	54	54
Wisconsin				
Total Interstate	29,744	96,237	4,290	130,271

Appendix Table 37b. Texas, 1985:

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total		
(thousand of bushels)						
Arizona	÷	424	_	424		
Arkansas	792	280	_	1,072		
California	-	4,534	_	4,534		
Florida	_	141	_	141		
Georgia	-	137	_	137		
Kansas	_	378	_	378		
Mississippi	_	560	_	560		
N. Carolina	_	388	_	388		
Washington	_	138	_	138		
Louisiana Gulf	_	_	99	99		
N. Texas Gulf	2,750	1,750	_	4,500		
S. Texas Gulf	3,998	1,348	_	5,346		
Direct Export	_	4,902	_	4,902		
Total Interstate	7,540	14,980	99	22,619		
Intrastate	138,680	12,281	91	151,052		
Total	146,220	27,261	190	173,671		

Appendix Table 38. Utah, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total		
(thousand of bushels)						
California	28	_	_	28		
Colorado	6,675	330	_	7,005		
Iowa		14	_	14		
Nebraska	415	1,374		1,789		

Total Interstate	7,118	1,718	_	8,836		

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total	
(thousand of bushels)					
California		83	_	83	
Colorado	6	-		6	
Idaho	224	-	_	224	
Nevada	26	58		84	
Total Interstate	256	141	_	397	

Appendix Table 39. Virginia, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Georgia	_	100		100
Maryland	5,100	140	_	5,240
N. Carolina	2,995	4,065	_	7,060
Ohio	1,146	6,080	-	7,226
S. Carolina	· –	373	-	373
Total Interstate	9,241	10,758	_	19,999

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total	
	(thousand of bushels)				
Delaware	_	141	_	141	
Maryland	-	-	54	54	
N. Carolina	1,415	681	_	2,096	
Ohio	31	1,000	-	1,031	
Pennsylvania	549	-	_	549	
Tennessee	77	-	_	77	
South Atlantic	8,288	4,300	8,122	20,710	
Total Interstate	10,360	6,122	8,176	24,658	
Intrastate	10,371	1,618	2,210	14,199	
Total	20,731	7,740	10,386	38,857	

Appendix Table 40. Washington, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thousa	nd of bushels)		
Colorado	_	755	_	755
Missouri	-	741	_	741
Oregon	_	880 .	_	880
Texas	_	138	_	138
Total Interstate	_	2,514	_	2,514

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total		
(thousand of bushels)						
Oregon Columbia River	<u>-</u> -	1,512 -	1,190 169	2,702 169		
Total Interstate	-	1,512	1,359	2,871		
Intrastate	-	11,885	274	12,159		
Total	-	13,397	1,633	15,030		

Appendix Table 41. W. Virginia, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Kentucky	133	_	_	133
Pennsylvania	1,720			1,720
S. Carolina	37	-	-	37
Total Interstate	1,890	_	_	1.890

Corn Shipments to Various Destinations

		 			
Origin	Truck	Rail	Barge	Total	
	(thousand of bushels)				
Louisiana Gulf	- ,	-	312	312	
Total Interstate	_	-	312	312	

Appendix Table 42. Wisconsin, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total
	(thous	and of bushels)		
Illinois Iowa Minnesota	- 2,095 3,678	350 6,395 5,728	- - -	350 8,490 9,406
Total Interstate	5,773	12,473	_	18,246

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total
	(thousa	nd of bushels)		
Alabama .	-	_	1,106	1,106
Arkansas	·	136	_	136
Illinois	21,962	2,624	-	24,586
Indiana	-	900	_	900
Iowa	2,950	894	55	3,899
Minnesota	8,963	_	_	8,963
Mississippi	_	_	57	57
Tennessee	_	-	925	925
Texas	-	-	54	54
Chicago	5,000			5,000
North Atlantic	_	4,100	_	4,100
Louisiana Gulf	_	· -	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

Appendix Table 43. Wyoming, 1985:

Corn Receipts from Various Origins

Mode of Transportation

Origin	Truck	Rail	Barge	Total		
	(thousa					
Minnesota	1,324	-	· -	1,324		
Nebraska	3,682	-	_	3,682		
S. Dakota	872	_	-	872		
Total Interstate	5,878	-	_	5,878		

Corn Shipments to Various Destinations

Origin	Truck	Rail	Barge	Total	
	(thous	and of bushels)			
Intrastate	391	_		391	

Appendix Table 44. Duluth-Superior, 1985:

Corn Receipts from Various Origins

		·		
Origin	Truck	Rail	Barge	Total
	(thou			
Iowa Minnesota	_ 458	94 2,267	_	94 2,725
N. Dakota	133	357		490
Total	591	2,718	-	3,309

Appendix Table 45. Chicago, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total	
	(thousand of bushels)				
Illinois	1,594	266	_	1,860 9,494	
Indiana Iowa	9,494 -	3,435	_	3,435	
Wisconsin	5,000	-	_ 	5,000	
Total	16,088	3,701	_	19,790	

Appendix Table 46. Toledo, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total	
	(thousand of bushels)				
Indiana	4,604	10,305	_	14,909	
Michigan	7,172	6,361	_	13,533	
Ohio	28,417	_	_	28,417	
Total	40,193	16,666	_	56,859	

Appendix Table 47. Saginaw, 1985:

Corn Receipts from Various Origins

		· · •		
Origin	Truck	Rail	Barge	Total
	(tho			
Iowa Michigan	_ 1,233	1,247	- -	1,247
Total	1,233	1,247	-	2,480

Appendix Table 48. North Atlantic, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total	
	(thousand of bushels)				
Indiana Michigan	- 525	7,544 5,500	-	7,544 6,025	
Ohio Wisconsin	- -	4,004 4,100	-	4,004 4,100	
Total	525	21,148		21.673	

Appendix Table 49. South Atlantic, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total
	(thousand of bushels)			
Illinois Indiana Michigan N. Carolina Ohio S. Carolina Virginia	- - - 56 3,941 8,288	5,045 76,697 29,980 3,065 69,446 - 4,300	- 2,460 - - 8,122	5,045 76,697 29,980 5,525 69,502 3,941 20,710
Total	12,285	188,533	10,582	211,400

Appendix Table 50. East Gulf, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total	
	(thousand of bushels)				
Alabama Georgia Illinois Indiana Iowa Kentucky Minnesota Missouri Nebraska S. Dakota	1,330 1,127 — — — — — —	1,500 7,091 5,483 5,003 4,396 2,946 — 5,168 989	2,318 800 1,667 - 754 - 3,208 417	3,648 3,427 8,758 5,483 5,757 4,396 6,154 417 5,168 989	
Total	2,457	32,576	9,164	44,197	

Appendix Table 51. Louisiana Gulf, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total		
	(thousand of bushels)					
Alabama	_	_	467	467		
Illinois	_	54,393	448,697	503,090		
Indiana	-	2,539	75,516	78,055		
Iowa	_	4,915	110,875	115,790		
Kansas	-	_	47	47		
Kentucky		_	50,137	50,137		
Louisiana	7,910		7,476	15,386		
Michigan	_	-	1,310	1,310		
Minnesota	-	_	91,408	91,408		
Mississippi	2,483	_	1,183	3,666		
Missouri	_	3,752	69,358	73,110		
Nebraska	-	_	500	500		
Ohio	-	_	56,953	56,953		
Oklahoma	-	* -	250	250		
Penn.	-	_	50	50		
Tenn.	_	-	6,050	6,050		
Texas	-	_	99	99		
W. Virginia	-	-	312	312		
Wisconsin	_	-	17,152	17,152		
m1	10 202			1 010 200		
Total	10,393	65,599	937,840	1,013,832		

Appendix Table 52. North Texas Gulf, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total	
	(thousand of bushels)				
Illinois Iowa Nebraska Texas	76 - 2,750	4,400 1,300 1,750	63 58 - -	63 4,534 1,300 4,500	
Total	2,826	7,450	121	10,397	

Appendix Table 53. South Texas Gulf, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total
	(thousand of bushels)			
Iowa Nebraska Texas	_ _ 3,998	1,240 2,474 1,348	- - -	1,240 2,474 5,346
Total	3,998	5,062		9,060

Appendix Table 54. Columbia River, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total		
	(thousand of bushels)					
Iowa	_	18,469	_	18,469		
Minnesota	_	18,013		18,013		
Nebraska	_	81,718	_	81,718		
N. Dakota	3,137	3,348	_	6,485		
Oregon	_	· –	1,182	1,182		
S. Dakota	1,342	33,030		34,372		
Washington	· -	· –	169	169		
Total	4,479	154,578	1,351	160,408		

Appendix Table 55. Puget Sound, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total		
	(thousand of bushels)					
Iowa	_	7,382	_	7,382		
Minnesota	-	38,058	- '	38,058		
Nebraska	_	48,585	_	48,585		
N. Dakota	192	8,899	_	9,091		
S. Dakota	_	12,030	-	12,030		
Total	192	114,954	_	115,146		

Appendix Table 56. California Ports, 1985:

Corn Receipts from Various Origins

Origin	Truck	Rail	Barge	Total		
	(thousand of bushels)					
Calif. Iowa Nebraska	962 _ _	4,100 14,626	- - -	962 4,100 14,626		
Total	962	18,726		19,688		