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Interregional Flow Patterns and Transportation Requirements in 1985

Donald W. Larson, Thomas R. Smith, and E. Dean Baldwin

North Central Regional Research Bulletin 323

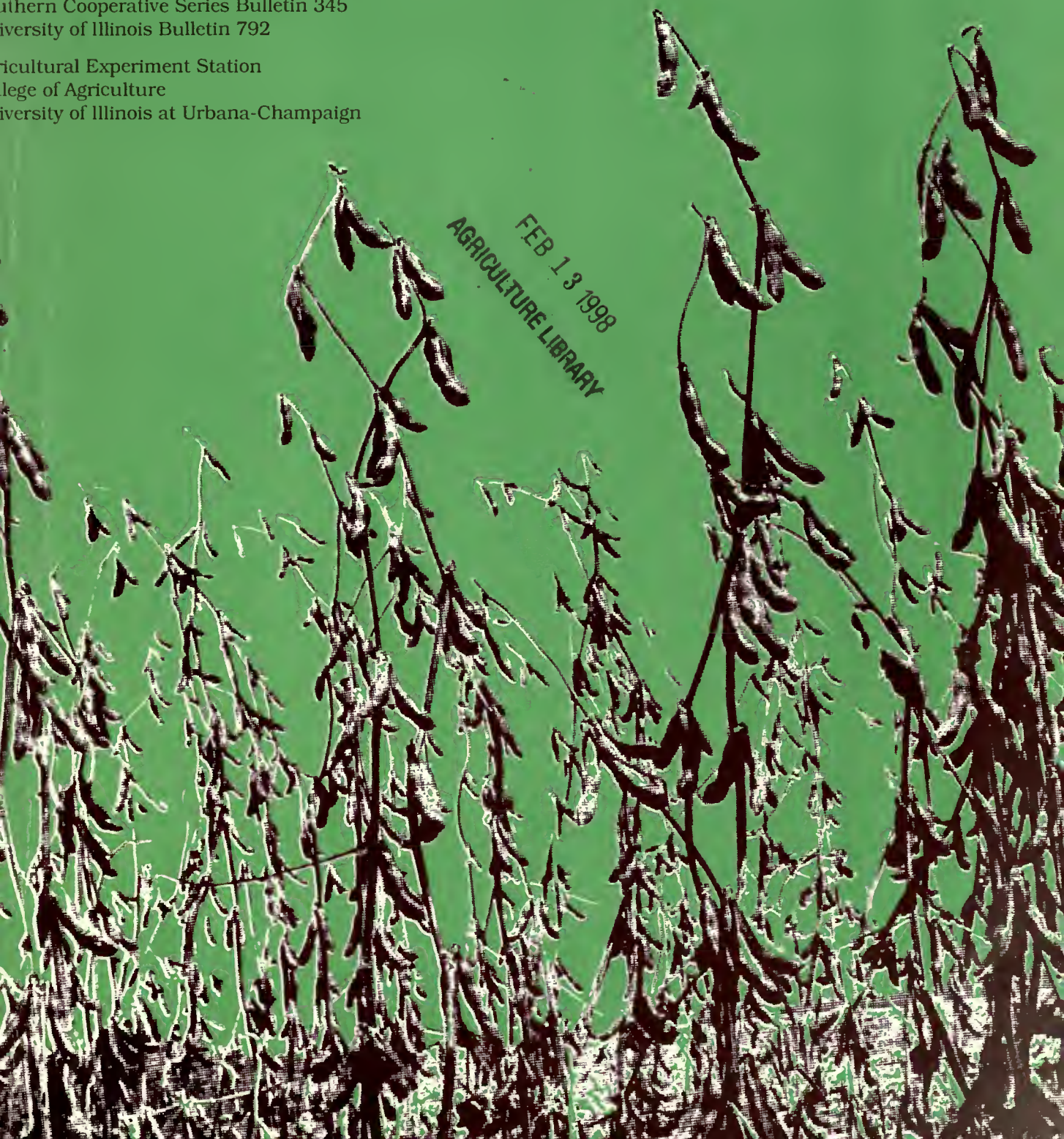
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Soybean Movements in the United States

Interregional Flow Patterns and Transportation Requirements in 1985

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North Central Regional Research Bulletin 323
Southern Cooperative Series Bulletin 345
University of Illinois Bulletin 792
Illinois Agricultural Experiment Station
Urbana-Champaign, Illinois



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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 Transportation 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 soybean 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 soybeans moved between U.S. origins and destinations using various transport modes in 1985. Other publications in this series provide similar information for corn, 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 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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The authors wish to acknowledge the leadership of Joseph Vercimak of the University of Illinois in managing the collection and processing of the 1985 grain flow information. The authors also wish to thank Karlene Robison and Susie Sheller for assistance in typing the manuscript and Janice DeCarolis for assistance in chart preparation. This research was carried out with the cooperation of the Southern Regional Grain Marketing Committee and the North Central Regional Transportation Committee. The authors thank the review committee of Carl Toensmeyer, Eric Wailes, and T.Q. Hutchinson for their helpful comments.

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Soybean Movements in the United States

Interregional Flow Patterns and Transportation Requirements in 1985

Purpose of the Study

Introduction

Maintaining our competitive edge in world soybean markets is an objective frequently expressed by soybean 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 soybeans from production regions to domestic destinations and export ports. This efficient flow of soybeans can be achieved with decisions based on information about soybean shipping patterns that will enable soybean 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 soybeans 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 soybean shipping and receiving patterns for 1985.

Objectives of the Study

The objectives of this study were:

- (1) Identify the quantity of soybeans shipped among various state, regional and export locations.
- (2) Determine the extent to which various transportation modes were employed in the movement of soybeans 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

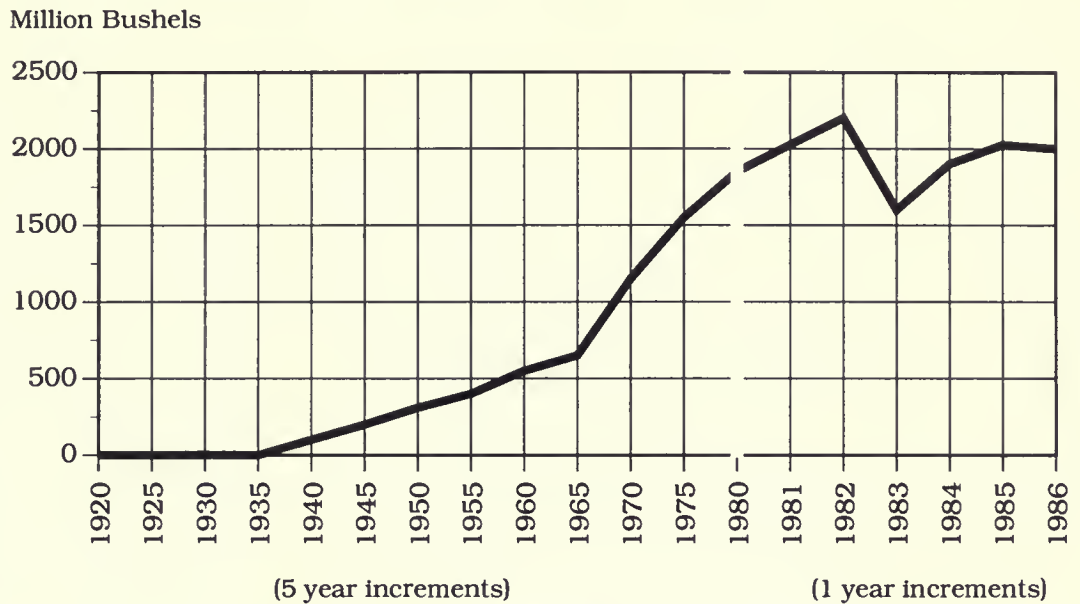
Each of the grain handlers and processors interviewed provided the same type of information: the volume, origin, and mode of transport for all grain received at and shipped from their facilities. Data were coded using a consistent format and sent to the University of Illinois for processing. Processing 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

Figure 1.
Soybean Production in the United States, 1920-1986.



Source: Agricultural Statistics, U.S.D.A., Selected Years

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 soybeans used for seed and processing during calendar year 1985 was subtracted from the estimate of the amount of soybeans 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 additional 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 soybeans.

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

Soybeans, the miracle crop, have become the most important oilseed crop in the United States. Production has increased very rapidly from less than 5 million bushels in the 1920s to over 2 billion bushels in the 1980s (Figure 1). In the 1979/80 marketing

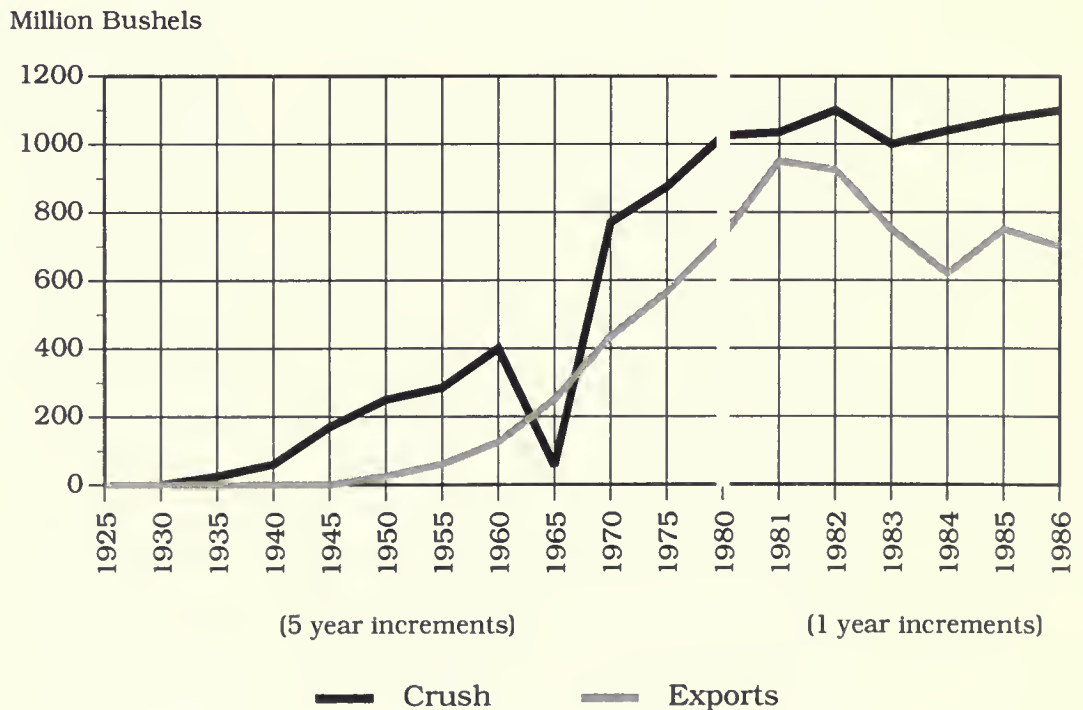
year, production reached a peak of 2.2 billion bushels (Table 1). Production in the drought year of 1983 declined to 1.6 billion bushels. Since then, production has fluctuated around two billion bushels annually. Among the major field crops, soybeans rank either third behind corn and wheat or second behind corn in annual volume produced.

Soybean use for domestic crush and export markets has increased very rapidly from the 1940s to the 1980s (Figure 2). During the 1979/80 marketing year, soybean exports reached a peak of 850 million bushels and the domestic crush reached a peak of 1.1 billion bushels (Table 1). Between that record year and 1985/86, exports declined significantly and domestic crush declined slightly (Figure

2). The amount crushed (about 1 billion bushels in 1985/86) varied from year to year depending upon soybean production and the demand for oil and meal. Soybean disappearance for feed, seed, and residual was a relatively small amount each year.

The rapid growth in soybean production, domestic crush, and exports placed large demands on the transportation system to handle these flows. Many changes in soybean shipping and receiving facilities at origins and destinations were made to handle the increased flows. The 88 United States soybean processing plants operating in 1988 are concentrated in the Cornbelt, Delta, and Southeast regions (see Figure 3), which are also the main producing regions (American Soybean Associ-

Figure 2.
Soybean Usage in the United States.



Source: Agricultural Statistics, U.S.D.A., Selected Years

Table 1.

Soybean Supply and Disappearance in the United States for Marketing Years from 1971/72 to 1985/86.

Marketing Year ^a	Supply			Disappearance					
	Beginning Stocks	Production	Total	Crushing	Seed	Feed	Residual	Net Export ^b	Total
<i>millions of bushels</i>									
1971-72	99	1,176	1,275	721	51	1	13	417	1,203
1975-76	185	1,547	1,732	865	54	1	13	555	1,488
1977-78	103	1,761	1,865	927	70	1	7	700	1,704
1979-80	174	2,268	2,442	1,130	80	c	17	850	2,077
1985-86	316	2,098	2,414	1,088	63	c	c	617	1,768

^a Beginning September 1.

^b The volume imported was negligible.

^c Not available.

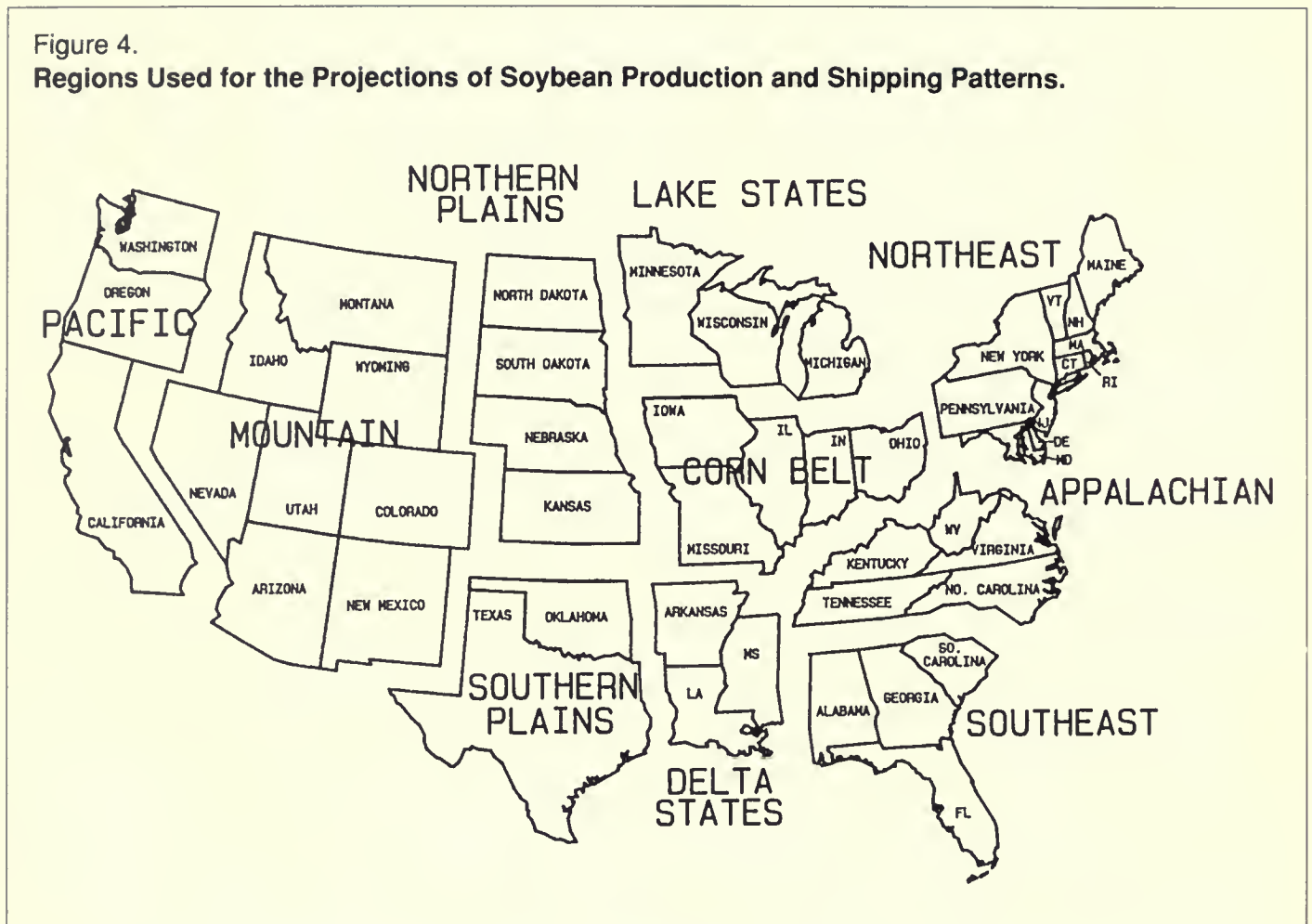
Source: *Fats and Oils Situation*, Economics and Statistics Service, U.S.D.A., FOS-300 (July 1980 to July 1986), p.6.

Figure 3.
United States Soybean Processing Plants, 1987.



Source: American Soybean Association, *Soya Blue Book*, 1987

Figure 4.
Regions Used for the Projections of Soybean Production and Shipping Patterns.



ation, 1987). Figure 4 then presents selected state data summarized into 10 regions.

Soybean production is concentrated in the Cornbelt region, which accounted for 58 percent of 1985 production (Table 2). The Delta, Lake States, Appalachia, and the Southeast regions have 10.2 percent, 9.8 percent, 6.8 percent, and 4.6 percent shares respectively, with almost no soybean production in other regions.

The share of production increased slightly for the Northeast, Lake States, Cornbelt, and

Northern Plains regions between 1977 and 1985 (Table 2). The large increase in the production share for the Northern Plains region is partially explained by a severe drought in that region during 1977. However, the Appalachian, Southeast, and Delta regions lost production shares for the 1977 to 1985 period. Changes in the profitability of growing soybeans as compared to other crops (especially rice) and government programs may explain the declining production shares for these regions.

Table 2.
Soybean Production by Regions of U.S. for 1985/86 and 1977/78.

Region	Soybean Production		Percent of U.S. Production	
	1985/86	1977/78	1985/86	1977/78
	<i>millions of bushels</i>			
Northeast	25.9	16.6	1.2	0.9
Lake States	204.2	162.2	9.8	9.2
Cornbelt	1,219.1	1,000.7	58.2	56.8
Northern Plains	182.0	82.0	8.7	4.7
Southern Plains	11.5	28.0	0.5	1.6
Appalachia	143.5	130.5	6.8	7.4
Southeast	95.6	90.2	4.6	5.1
Delta	212.8	247.3	10.2	14.0
Mountain	0	0	0	0
Pacific	0	0	0	0
Total	2,098.0	1,761.0	100.0	100.0^a

^a Total does not add to 100 due to rounding.

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

Analysis of Shipments and Receipts

Intrastate Movements

Total intrastate shipments of soybeans equaled 48 percent of total production in 1985 (Table 3). The three states with the largest intrastate shipments were Illinois, Iowa, and Minnesota. Other states with large intrastate shipments included Indiana, Nebraska, North Carolina, and Ohio. Those states with the largest intrastate shipments of soybeans were also the largest producers of soybeans, or were important transshipment points.

Truck shipments accounted for 88 percent of all intrastate shipments, rail less than 12 percent, and barge less than 1.0 percent. Barge movements were significant only for Illinois, Mississippi, and Tennessee. These reported intrastate barge movements may have been enroute to export or interstate destinations with only an intermediate stop within the state. Short distance shipments by barge or rail are generally not economical.

Interstate Receipts

Receipts of soybeans from other states reflect movements to export points, deficit processing areas, and transshipment centers. Export locations received over 50 percent of the 1.1 billion bushels of interstate receipts in 1985 (Table 4).

The largest receipts were in Illinois, Missouri, Tennessee, Iowa, Alabama, Maryland, Kentucky, and Kansas. All of these states were transshipment centers, with the exception of Maryland which is a deficit processing area. The distribution of interstate receipts among the three modes of transportation was relatively unequal: 43 percent was moved by barge, 32 percent by truck, and 25 percent by rail. Excluding the movements to export points, rail and truck interstate movements were more im-

portant than barge. The origin of receipts is presented in the Appendix.

Interstate Shipments

Total interstate shipments must match total interstate receipts (Tables 4 and 5). Whatever is shipped from one location must be received at another. Therefore, any discrepancies that appeared between total shipments and total receipts were eliminated during the reconciliation process. The distribution of interstate shipments among the three transportation modes was the same as for interstate receipts discussed previously in this bulletin.

The states shipping the largest volumes were Illinois, Missouri, Minnesota, Arkansas, Tennessee, and Iowa. Except for Tennessee, these states were large soybean producers. The shipping volume in Tennessee was large because Memphis was an important transshipment center. The destination of shipments by states is presented in the Appendix.

Shipments to Export Regions

Data for individual export ports are summarized into 13 port areas for five export regions in Table 6. Total volume shipped to port areas was 631.6 million bushels in 1985 (Table 7). The states with the largest shipments to export were Illinois, Ohio, Missouri, Minnesota, Arkansas, Indiana, Iowa, Louisiana, Mississippi, and Tennessee (Table 8). These states were either surplus producing centers or had important river transshipment points or both.

Receipts by Port Area

By definition, total receipts by port area must equal the total shipments to ports, which were 631.6 million bushels in 1985 (Table 9). In all cases, the soybean flow results were within 10 percent of the inspections for export (Federal Grain Inspection Service, 1987). The Gulf region accounted for

Table 3.
1985 Intrastate Shipments of Soybeans for Each State and Mode of Transport .^a

Origin State	Mode of Transportation			Total	Production
	Truck	Rail	Barge		
	<i>thousands of bushels</i>				
Alabama	12,178	534	187	12,899	27,810
Arkansas	34,286	704	232	35,222	98,050
Colorado	450	0	0	450	0
Delaware	3,000	0	0	3,000	7,200
Florida	2,000	0	0	2,000	5,980
Georgia	6,627	13,297	0	19,924	37,200
Illinois	177,340	19,115	1,949	198,404	382,500
Indiana	87,785	7,080	0	94,865	185,090
Iowa	170,671	24,498	0	195,169	309,700
Kansas	11,318	1,698	0	13,016	43,710
Kentucky	1,988	421	95	2,504	41,820
Louisiana	7,205	65	0	7,270	44,100
Maryland	4,000	120	0	4,120	12,800
Michigan	4,479	230	0	4,709	34,560
Minnesota	81,985	20,982	51	103,018	160,000
Mississippi	29,746	67	825	30,638	70,740
Missouri	10,932	9,316	47	20,295	180,435
Nebraska	70,659	1,500	0	72,159	84,960
New Jersey	2,000	0	0	2,000	4,386
New York	169	30	0	199	0
North Carolina	70,655	4,246	0	74,901	39,100
North Dakota	4,000	0	0	4,000	12,740
Ohio	61,214	9,329	0	70,543	160,605
Oklahoma	2,000	0	0	2,000	4,370
Pennsylvania	819	646	0	1,465	5,950
South Carolina	5,859	2,207	0	8,066	24,600
South Dakota	637	0	0	637	40,640
Tennessee	22,263	662	1,193	24,118	45,260
Texas	5,191	1,070	0	6,261	7,250
Virginia	788	0	0	788	17,375
Wisconsin	1,303	0	0	1,303	9,600
Total volume	893,547	117,817	4,579	1,015,943	2,098,531
Percent of total volume	88	11.6	0.4	100	
Percent of total production	42.6	5.6	0.2	48.4	

^a Excludes shipments to port areas.

Table 4.
1985 Interstate Receipts of Soybeans for Each State and Port by Mode of Transport.

Destination State	Mode of Transportation			Total
	Truck	Rail	Barge	
	<i>thousands of bushels</i>			
Alabama	16,329	11,546	9,261	37,136
Arizona	0	715	0	715
Arkansas	3,107	4,765	2,327	10,199
California	0	1,365	0	1,365
Colorado	100	0	0	100
Delaware	10,383	3,302	0	13,685
Florida	0	193	0	193
Georgia	4,093	11,427	0	15,520
Illinois	66,824	26,147	3,949	96,920
Indiana	5,474	2,055	0	7,529
Iowa	38,675	1,191	56	39,922
Kansas	17,941	4,557	0	22,498
Kentucky	11,621	10,255	552	22,428
Louisiana	4,860	65	0	4,925
Maryland	23,526	12,293	47	35,866
Michigan	17	0	0	17
Minnesota	7,471	6,714	99	14,284
Mississippi	4,862	7,521	5,012	17,395
Missouri	24,570	24,282	366	49,218
Nebraska	7,545	2,944	0	10,489
New Jersey	19	0	0	19
New York	75	127	0	202
North Carolina	2,700	7,228	0	9,928
North Dakota	850	317	0	1,167
Ohio	9,331	5,008	0	14,339
Pennsylvania	2,910	808	0	3,718
South Carolina	4,669	2,725	0	7,394
South Dakota	787	0	0	787
Tennessee	19,515	8,809	17,812	46,136
Texas	1,579	7,863	0	9,442
Virginia	9,600	5,557	48	15,205
Wisconsin	368	0	0	368
Subtotal	299,801	169,779	39,529	509,109
Chicago Port	1,924	0	0	1,924
Eastern Gulf Ports	6,129	11,450	12,391	29,970
Louisiana Gulf Ports	13,080	15,104	434,220	462,404
North Atlantic Ports	2,000	4,900	0	6,900
Pacific Northwest Ports	0	18,872	24	18,896
Saginaw Port	64	0	0	64
South Atlantic Ports	8,934	44,598	2,363	55,895
Texas Gulf Ports	5,590	4,128	48	9,766
Toledo Port	26,448	165	0	26,613
Direct Exports	781	18,351	94	19,226
Total volume	364,751	287,347	488,669	1,140,767
Percent of total receipts	31.9	25.2	42.8	100.0

Table 5.
1985 Interstate Shipments of Soybeans for Each State and Mode of Transport.^a

Origin State	Mode of Transportation			Total
	Truck	Rail	Barge	
	<i>thousands of bushels</i>			
Alabama	5,744	5,036	8,858	19,638
Arkansas	17,680	1,765	43,445	62,890
Delaware	1,000	0	0	1,000
Florida	2,680	1,168	1,306	5,154
Georgia	4,100	7,938	0	12,038
Illinois	15,738	11,827	121,878	149,443
Indiana	32,689	48,811	22,529	104,029
Iowa	16,637	37,760	34,242	88,639
Kansas	5,164	5,503	235	10,902
Kentucky	14,342	6,238	21,356	41,936
Louisiana	10,831	66	27,519	38,416
Maryland	307	404	48	759
Michigan	6,407	20,600	505	27,512
Minnesota	4,915	10,535	49,294	64,744
Mississippi	19,127	3,457	28,966	51,550
Missouri	32,983	14,089	55,434	102,506
Nebraska	29,491	16,695	1,568	47,754
New Jersey	3,642	158	0	3,800
New York	323	404	0	727
North Carolina	24,024	11,616	1,203	36,843
North Dakota	4,068	6,229	0	10,297
Ohio	29,518	39,243	28,652	97,413
Oklahoma	2,200	682	974	3,856
Pennsylvania	7,331	2,596	0	9,927
South Carolina	5,420	1,692	0	7,112
South Dakota	23,513	9,351	0	32,864
Tennessee	10,018	9,502	34,628	54,148
Texas	3,328	11,465	894	15,687
Virginia	23,792	1,617	1,340	26,749
Washington	0	834	24	858
Wisconsin	7,739	66	3,771	11,576
Total volume	364,751	287,347	488,669	1,140,767
Percent of total	32.0	25.2	42.8	100.0

^a Includes shipments to port areas.

Table 6.
Export Regions, Port Areas, and Port Cities.

Export Region	Port 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 N. 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

Direct^a

^a Exports that originate in the Interior U.S. bound for Mexico or Canada

Table 7.
1985 Shipments of Soybeans to Port Areas by Originating State and Mode of Transport^a

Originating State	Export Areas	Mode of Transportation			Total
		Truck	Rail	Barge	
<i>thousands of bushels</i>					
Alabama	Eastern Gulf	2,729	960	6,369	10,058
	Louisiana Gulf	0	0	1,617	1,617
Arkansas	Louisiana Gulf	3,000	1,250	42,767	47,017
	Texas Gulf	0	0	48	48
Florida	Eastern Gulf	2,400	0	0	2,400
	Louisiana Gulf	0	0	991	991
Georgia	Eastern Gulf	0	600	0	600
	Louisiana Gulf	0	4,500	0	4,500
	South Atlantic	1,878	1,450	0	3,328
Illinois	Chicago/Duluth	344	0	0	344
	Eastern Gulf	0	1,882	1,059	2,941
	Louisiana Gulf	0	3,155	107,078	110,233
	South Atlantic	0	850	0	850
Indiana	Chicago/Duluth	1,216	0	0	1,216
	Eastern Gulf	0	2,879	691	3,570
	Louisiana Gulf	0	800	20,590	21,390
	South Atlantic	0	10,796	0	10,796
Iowa	Chicago/Duluth	259	0	0	259
	Direct Exports	0	1,849	0	1,849
	Eastern Gulf	0	0	1,000	1,000
	Louisiana Gulf	0	1,026	26,857	27,883
	Pacific N.W.	0	4,454	0	4,454
	Texas Gulf	0	1,228	0	1,228
	Louisiana Gulf	0	0	235	235
Kansas	Texas Gulf	1,393	400	0	1,793
	Eastern Gulf	0	399	1,513	1,912
Kentucky	Louisiana Gulf	0	0	17,139	17,139
	Direct Exports	0	0	94	94
Louisiana	Eastern Gulf	0	0	247	247
	Louisiana Gulf	7,080	66	26,708	33,854
	Texas Gulf	1,039	0	0	1,039
	Chicago/Duluth	105	0	0	105
	Direct Exports	781	4,570	0	5,351
Michigan	Louisiana Gulf	0	0	505	505
	South Atlantic	0	11,480	0	11,480
	Saginaw	64	0	0	64
	Toledo	1,553	0	0	1,553
	Eastern Gulf	0	2,687	0	2,687
	Louisiana Gulf	0	0	45,587	45,587
Minnesota	Pacific N.W.	0	5,760	0	5,760

(Continued on page 14)

Table 7. — Continued
1985 Shipments of Soybeans to Port Areas by Originating State and Mode of Transport^a

Originating State	Export Areas	Mode of Transportation			Total
		Truck	Rail	Barge	
<i>thousands of bushels</i>					
Mississippi	Eastern Gulf	1,000	1,035	109	2,144
	Louisiana Gulf	3,000	1,066	28,806	32,872
Missouri	Eastern Gulf	0	0	357	357
	Louisiana Gulf	0	1,077	53,196	54,273
	Texas Gulf	0	1,418	0	1,418
Nebraska	Direct Exports	0	1,800	0	1,800
	Eastern Gulf	0	350	46	396
	Louisiana Gulf	0	0	1,522	1,522
	Pacific N.W.	0	1,212	0	1,212
	Texas Gulf	0	285	0	285
North Carolina	South Atlantic	0	2,123	1,203	3,326
North Dakota	Pacific N.W.	0	1,612	0	1,612
Ohio	Direct Exports	0	132	0	132
	Louisiana Gulf	0	1,164	22,923	24,087
	North Atlantic	0	4,900	0	4,900
	South Atlantic	0	16,039	0	16,039
	Toledo	24,895	165	0	25,060
Oklahoma	Louisiana Gulf	0	0	974	974
Pennsylvania	North Atlantic	2,000	0	0	2,000
	South Atlantic	640	371	0	1,011
South Carolina	South Atlantic	750	1,016	0	1,766
South Dakota	Pacific N.W.	0	5,000	0	5,000
	Texas Gulf	0	112	0	112
Tennessee	Eastern Gulf	0	658	1,000	1,658
	Louisiana Gulf	0	1,000	32,119	33,119
Texas	Direct Exports	0	10,000	0	10,000
	Louisiana Gulf	0	0	894	894
	Texas Gulf	3,158	685	0	3,843
Virginia	Louisiana Gulf	0	0	133	133
	South Atlantic	5,666	473	1,160	7,299
Washington	Pacific N.W.	0	834	24	858
Wisconsin	Louisiana Gulf	0	0	3,579	3,579
Total volume		64,950	117,568	449,140	631,658
Percent of total volume		10.3	18.6	71.1	100.0

^a For definition of export region, see Table 6.

Table 8.

Soybean Shipments to Port Areas by Originating States and Percent of Total Receipts at All Ports, 1985.

Originating State	Thousands of Bushels	Percent of Total Exports
Illinois	114,368	18.1
Ohio	70,218	11.1
Missouri	56,048	8.9
Minnesota	54,034	8.6
Arkansas	47,065	7.5
Indiana	36,972	5.9
Iowa	36,673	5.8
Louisiana	35,234	5.6
Mississippi	35,016	5.5
Tennessee	34,777	5.5
Michigan	19,058	3.0
Kentucky	19,051	3.0
Texas	14,737	2.3
Alabama	11,675	1.8
Georgia	8,428	1.3
Virginia	7,432	1.2
Nebraska	5,215	0.8
South Dakota	5,112	0.8
Wisconsin	3,579	0.6
Florida	3,391	0.5
North Carolina	3,326	0.5
Pennsylvania	3,011	0.5
Kansas	2,028	0.3
South Carolina	1,766	0.3
North Dakota	1,612	0.3
Oklahoma	974	0.2
Washington	858	0.1
Total	631,658	100.0

Table 9.
1985 Receipts of Soybeans at Port Areas and Mode of Transport.

Export Region and Port Area ^a	Mode of Transportation			Total Receipts
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Great Lakes Region				
Chicago	1,924	0	0	1,924
Saginaw	64	0	0	64
Toledo	26,448	165	0	26,613
Subtotal	28,436	165	0	28,601
Atlantic Region				
North Atlantic	2,000	4,900	0	6,900
South Atlantic	8,934	44,598	2,363	55,895
Subtotal	10,934	49,498	2,363	62,795
Gulf Region				
Eastern Gulf	6,129	11,450	12,391	29,970
Louisiana Gulf	13,080	15,104	434,220	462,404
Texas Gulf	5,590	4,128	48	9,766
Subtotal	24,799	30,682	446,659	502,140
Pacific Region				
California Ports	0	0	0	0
Pacific N.W.	0	18,872	24	18,896
Subtotal	0	18,872	24	18,898
Direct Exports	781	18,351	94	19,226
Total receipts	64,950	117,568	449,140	631,658
Percent of total receipts	10.3	18.6	71.1	100.0

^a See Table 6 for definition of Regions and Port Areas.

nearly 80 percent of all receipts into port areas with the Louisiana Gulf region having more volume than the Eastern Gulf or Texas Gulf regions. The Atlantic region experienced the next highest volume of receipts at nearly 10 percent of the total. The remainder was divided between the Great Lakes and Pacific regions.

Barges accounted for 71 percent of all movements, with most of the barge movements to the Louisiana Gulf region. Rail movements accounted for 19 percent of total receipts at ports, and truck movements accounted for 10 percent. Truck movements were very important in the Great Lakes re-

gion, whereas rail movements were very important in the Atlantic and Pacific regions. Rail movements accounted for nearly all the exports to Canada and Mexico that originated directly from interior points (Table 9).

Exports by Destination

The United States exports soybeans to many countries throughout the world (Table 10). Not surprisingly, 80 percent of the soybean exports originated from the United States Gulf region (Grain and Feed Market News, 1986). Japan was the United States' most important trading partner, buying 164

Table 10.
1985 Exports of U.S. Soybeans by Export Region and Destination.

Destination by Country	Export Regions					Total
	Great Lakes Region	Atlantic Region	Gulf Region	Pacific Region	Interior	
	<i>thousands of bushels</i>					
Belgium		187	17,160			17,347
Brazil			6,001			6,001
Bulgaria			820			820
China (Main)			2,314			2,314
China (T)			39,460	11,853		51,313
Colombia			5,052			5,052
Denmark		524	2,132			2,656
Dominican Republic			1,371			1,371
France	3,234	845	7,291			11,370
Greece	622	633	5,814			7,069
Haiti			411			411
Indonesia			1,906			1,906
Israel	1,171	3,959	10,607			15,737
Italy		1,721	20,715			22,436
Jamaica			1,687			1,687
Japan	5,253	25,016	132,980	1,260		164,509
Korea			26,129	3,213		29,342
Kuwait			637			637
Mexico			14,678	2,317	18,188	35,183
Morocco			404			404
Netherlands	2,253	2,652	98,884			103,789
Norway	922	898	1,925			3,745
Panama			263			263
Poland	378					378
Portugal	559	9,463	10,551			20,573
Romania		2,370	1,213			3,583
Spain	5,514	8,142	29,734			43,390
United Kingdom	2,464	4,547	5,463			12,474
Venezuela			6,607			6,607
West Germany	967		30,329			31,296
Yugoslavia		808	7,822			8,630
Total volume	23,337	61,765	490,360	18,643	18,188	612,293
Percent of total volume	3.8	10.1	80.1	3.0	3.0	100.0

^a See Table 6 for definition of Export Region.

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

Table 11.

Total Volume of Interstate Soybean Shipments by Mode of Transport, 1977 vs. 1985.^a

Mode	1977*		1985		Percent change in volume 1977/1985
	Volume	Percent share	Volume	Percent share	
	<i>thousands of bushels</i>		<i>thousands of bushels</i>		
Truck	191,907	25.1	364,751	32.0	90.1
Rail	223,786	29.2	287,347	25.2	28.0
Barge	349,657	45.7	488,699	42.8	39.8
Total	765,350	100.0	1,140,767	100.0	49.1

^a Shipments to port areas are included.

* Derived from *Soybean 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. 13.

million bushels in 1985; second was The Netherlands with over 103 million bushels; and third was Taiwan with over 50 million bushels. The two countries experiencing the most rapid growth in imports from the United States were Taiwan and Korea. If rapid growth in soybean imports continues in the Pacific Rim countries, the United States can expect significant changes in the transportation and distribution systems for soybeans.

Comparisons with 1977

Production and Utilization

Changes in supplies and distribution during the period from 1977 to 1985 indicate long term trends as well as changes in economic variables. Soybean production increased from 1.8 billion bushels in 1977 to 2.1 billion in 1985, a 24 percent increase (Table 1). This increase reflected the growth in acreage as well as the effects of the drought of 1977. Total disappearance remained basically unchanged during the same period. Exports declined by nearly 10 percent while the volume crushed increased by 10 percent. The domestic market became more important as the export market declined. This had implications for the soybean transportation and distribution systems

because most crushing facilities were located in the production areas. In contrast, soybeans had to be transported long distances to be exported into the world market.

Interstate Shipments

Total interstate shipments of soybeans grew to 1.1 billion bushels in 1985 from 765 million bushels in 1977, an increase of nearly 48 percent (Table 11). Among the production regions defined in Figure 5, the Cornbelt region continued to be the largest shipper, although the Cornbelt region's share of total shipments decreased from 1977 to 1985 (Table 12). The Delta, Lake States, Southeast, and Appalachia regions were also large shippers of soybeans, with the latter three showing significant increases during this period. The Northern and Southern Plains regions also had major increases in soybean shipments. These major increases may be linked to the new export market opportunities in the West and Southwest regions, an increase in the 1985 ending inventories in the Cornbelt region, the 1977 drought, and the introduction of unit train rates.

During the 1977 to 1985 period, truck shipments increased by 90 percent, rail by 28 percent, and barge by 40 percent (Table 11). The rapid growth in truck shipments as

Table 12.
Interstate Shipments of Soybeans to Domestic Destinations and Export Ports for Each Region^a by Mode of Transport, 1985, and Total 1977 Shipments by Region, U.S.

Regions	1985				1977 ^b
	Truck	Rail	Barge	Total	Total
	<i>millions of bushels</i>				
Northeast	12.6	3.6	^e	16.2	5.4 ^c
Lake States	19.1	31.2	53.6	103.8	61.9
Corn Belt	127.6	151.7	262.7	542.0	503.0
Northern & Southern Plains	67.8	49.9	3.7	121.4	39.1
Appalachia	72.2	29.0	58.5	160.0	66.6
Southeast	17.9	15.8	10.2	43.9	8.9 ^d
Delta	47.6	5.3	99.9	152.9	170.2
Mountain	0	0	0	0	0
Pacific	0	0.8	^e	0.8	
Total	364.8	287.3	488.7	1,140.8	
Percent of total shipments	32.0	25.2	42.8	100.0	
1977 total shipments	191.9	223.8	349.7	765.4	
Percent of total shipments	25.1	29.2	45.7	100.0	

^a States included in each region are identified in Figure 4.

^b Derived from *Soybean 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. 13.

^c Because of the aggregation process for the 1977 data, Delaware and Maryland were transferred from the Northeast region to the Appalachia region.

^d Because of the aggregation process for the 1977 data, Alabama was transferred from the Southeast region to the Appalachia region.

^e Less than 100,000 bushels.

compared to other modes was linked to an increase in importance of the domestic market over the export market.

Structural changes in transportation and deregulation contributed to changes in the shares of soybeans moved by the three modes of transportation. Barge movements accounted for 43 percent of all movements in 1985, truck shipments for 32 percent, and rail shipments for 25 percent (Table 11). The share of shipments by truck increased by seven percentage points from 1977 to 1985,

while the shares for barge and rail shipments declined during the period. Declining numbers of small elevators, increasing concentration of grain at train loading stations and barge facilities, and changes in the regional flow of export grain from the east coast to the west coast may explain the changes in transportation shares (Table 12).

Export shares by region have changed markedly. The biggest change was for the Great Lakes region, where soybean exports decreased from 10 percent of the total to 4.5

percent between 1977 and 1985 (Table 13). In the Atlantic region, soybean exports decreased from 11 to 10 percent while the percentage of Gulf region exports increased slightly. The biggest increase was the Pacific region, where exports increased from 0.2 percent of the total in 1977 to 3 percent in 1985. Another growth area was exports from inland terminals, which equaled 3 percent of the total in 1985 with no reported shipments in 1977. Most of these shipments were to Mexico by rail. Some shipments were to Canada.

Changes in international markets explain most of the shift in export shares among the ports. The emergence of the Pacific Rim countries (Japan, Korea, and Taiwan) as important markets and the decline in EEC demand for soybeans favored exports from the Pacific and Gulf region ports over the Great Lakes and Atlantic ports. The introduction of unit train rates for movement from the western Cornbelt region to the Pacific ports also facilitated the growth in exports from the Pacific region. In addition, the Gulf ports had an advantage in handling large ocean vessels as compared to the Great Lakes.

Exports by State

Total soybean exports declined between 1977 and 1985 (Table 1). However, the decline was not equally distributed among states. Even though the Midwest states (Illinois, Indiana, Iowa, and Wisconsin) continued to supply more soybeans than any other area, exports originating from the Midwest declined (Table 14). The largest decline among these states occurred in Iowa. Other states, such as Minnesota, Missouri, the Dakotas, Kansas, Nebraska, Kentucky, North Carolina, and Virginia increased their shares. These changes in relative shares can be explained by changes in production, ending stocks, and processor use levels. For example, even though production in Iowa increased, processing volume and ending inventories together increased faster so that the volume of export-bound soybeans from Iowa decreased from 1977 to 1985. Further, responding to demand from Pacific Rim countries, some states such as South Dakota and Nebraska increased their production and resulting export volumes.

Table 13.
Percent Distribution of Soybean Exports by Export Region, 1985 and 1977.

Export Region	Percent of Exports	
	1977	1985
Great Lakes	10	4.5
Atlantic	11	10.0
Gulf	77	79.5
Pacific	^b	3.0
Direct ^a	0	3.0
Total	100	100.0

^a See Table 6 for definition of Export Region.

^b Less than 1 percent in 1977.

Table 14.
Percentage Share of Total Soybean Shipments to Points of Export for Each Originating State, 1977 vs. 1985.

Originating State	1977		1985		Change from 1977 to 1985	
	<i>thousands of bushels</i>	Percent	<i>thousands of bushels</i>	Percent	<i>thousands of bushels</i>	Percent
Alabama	-	-	11,675	1.8		
Tennessee	-	-	34,777	5.5		
Subtotal ^b	31,698	5.0	46,452	7.4	14,754	46.6
Arkansas	56,415	8.9	47,065	7.5	(9,350) ^a	(16.6)
Delaware	-	-	-	-		
Maryland	-	-	-	-		
North Carolina	-	-	3,326	0.5		
Virginia	-	-	7,432	1.2		
Subtotal ^b	7,546	1.2	10,758	1.7	3,212	42.6
Florida	-	-	3,391	0.5		
Georgia	-	-	8,428	1.3		
South Carolina	-	-	1,766	0.3		
Subtotal ^b	6,655	1.0	13,585	2.1	6,930	104.1
Illinois	121,638	19.3	114,368	18.1	(7,270)	(6.0)
Indiana	44,317	7.0	36,972	5.9	(7,345)	(16.6)
Iowa	64,894	10.3	36,673	5.8	(28,220)	(43.5)
Kansas	-	-	2,028	0.3		
Nebraska	-	-	5,215	0.8		
Subtotal ^b	5,069	0.8	7,243	1.1	2,174	42.9
Kentucky	11,414	1.8	19,051	3.0	7,637	66.9
Louisiana	66,172	10.5	35,234	5.6	(30,938)	(46.8)
Michigan	18,091	2.9	19,058	3.0	967	5.35
Minnesota	29,304	4.6	54,034	8.6	24,730	84.39
Mississippi	33,892	5.4	35,016	5.5	1,124	3.32
Missouri	42,734	6.8	56,048	8.9	13,314	31.16
New York	-	-	-	-		
New Jersey	-	-	-	-		
Pennsylvania	-	-	3,011	0.5		
Subtotal ^b	1,263	0.2	3,011	0.5	1,748	138.40
North Dakota	0	0.0	1,612	0.3	1,612	Infinite
Ohio	66,556	10.6	70,218	11.1	3,362	5.5
Oklahoma	2,250	0.4	974	0.2	(1,276)	(56.71)
South Dakota	85	0.0	5,112	0.8	5,027	5914.12
Texas	9,752	1.6	14,737	2.3	4,985	51.12
Washington	0	0.0	858	0.1	858	Infinite
Wisconsin	5,797	0.9	3,579	0.6	(2,218)	(38.26)
Total ^c	631,059 ^d	100.0	631,658	100.0	603	0.0

^a Numbers in parentheses are negative changes where 1985 volume was less than 1977 volume.

^b Subtotals were included in some cases to facilitate comparisons with the 1977 data where state data were not reported.

^c Percentages may not add to 100 due to rounding procedure.

^d Export volume declined between 1977 and 1985 (Table 1). In 1977, only 631 of the 700 million bushels of exports were reported from the survey.

Table 15.

Interstate Receipts of Soybeans at Domestic Destinations for Each Region^a by Mode of Transport, 1985, and Total 1977 Receipts by Region, U.S.

Regions	1985				1977 ^b
	Truck	Rail	Barge	Total	Total
	<i>millions of bushels</i>				
Northeast ^c	3.0	0.9	0	3.9	0
Lake States	7.9	6.7	0.1	14.7	21.4
Corn Belt	144.9	58.7	4.4	207.9	105.2
Northern & Southern Plains	28.7	15.7	0	44.3	25.9
Appalachia	93.7	59.0	27.7	180.4	73.6
Southeast ^d	8.8	14.3	0	23.1	15.4
Delta	12.8	12.4	7.3	32.5	31.3
Mountain	0.1	0.7	0	0.8	0
Pacific	0	1.4	0	1.4	0
Total^e	299.9	169.8	39.5	508.2	272.9
Percent of total receipts	59.0	33.4	7.8	100.0	

^a States included in each region are identified in Figure 4.

^b Derived from *Soybean 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. 13.

^c Because of the aggregation process for the 1977 data, Delaware and Maryland were transferred from the Northeast region to the Appalachia region.

^d Because of the aggregation process for the 1977 data, Alabama was transferred from the Southeast region to the Appalachia region.

^e Total may not add due to rounding.

Interstate Receipts

Total interstate receipts of soybeans, excluding receipts by export destinations, surpassed 500 million bushels in 1985, compared to 273 million bushels in 1977, an increase of 86 percent (Table 15). As in 1977, the Cornbelt region led all other regions in soybean receipts in 1985. Receipts of soybeans by Appalachia, Northern and Southern Plains, and Southeast regions also increased during this period. The volume of interstate soybean receipts in the Lake States region de-

clined from 1977 levels. The decline in receipts for the Lake States region was most likely due to the shifts in export market activity explained previously.

In 1985, movement of soybeans by truck accounted for 59 percent of all domestic receipts, movement by rail for 33 percent, and by barge for 8 percent. Because of differences in the definition of regions, consistent data are not available for 1977 to show how the shares of soybean receipts moved by the modes of transportation may have changed from 1977 to 1985.

Conclusions

Results from the 1985 soybean flow study reveal several important changes when compared with the results of the 1977 study. As can be expected, soybean production patterns continued to show a high concentration of production (58 percent) in the Cornbelt region, with the balance of production distributed among several other regions.

The volume of soybean exports for 1985 equaled 632 million bushels and the distribution of exports by region changed significantly compared to 1977. The Gulf region, which exports more than any other region, experienced an increase in volume from 1977 to 1985. Soybean exports from the Great Lakes region declined significantly during the period, and Atlantic region exports declined slightly. Large relative increases in soybean exports occurred in the Pacific region, and direct exports. Changes in international markets appear to be a major factor explaining the changes in export shares by region from 1977 to 1985.

Barge continued to be the dominant mode of interstate soybean transportation, accounting for 46 percent of all movements in 1977 and 43 percent in 1985. Truck shipments increased from 25 to 32 percent during the period, while rail shipments decreased from 29 to 25 percent. Transportation deregulation does not appear to have helped the railroads compete for interstate soybean shipments. Strong competition among modes of transportation due to excess capacity in rail and barge transportation facilities in 1985 may explain this failure of railroads to gain market share in comparison to barge shipments.



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Appendix

Receipts and Shipments of Soybeans by State, 1985.

Table 16. Alabama

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Arkansas	1,158	0	0	1,158
Florida	280	0	217	497
Georgia	577	49	0	626
Illinois	173	0	2,937	3,110
Indiana	87	1,258	600	1,945
Iowa	0	901	2,046	2,947
Kentucky	1,857	2,399	0	4,256
Minnesota	0	133	1,277	1,410
Mississippi	5,577	1,034	0	6,611
Missouri	433	0	0	433
Nebraska	0	350	0	350
Ohio	0	0	1,029	1,029
South Carolina	47	0	0	47
Tennessee	6,140	5,422	1,056	12,618
Wisconsin	0	0	99	99
Total interstate	16,329	11,546	9,261	37,136

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Georgia	1,700	1,893	0	3,593
Illinois	0	0	100	100
Mississippi	85	1,170	461	1,716
Tennessee	1,230	1,013	311	2,554
Eastern Gulf	2,729	960	6,369	10,058
Louisiana Gulf	0	0	1,617	1,617
Total interstate	5,744	5,036	8,858	19,638
Intrastate	12,178	534	187	12,899
Total	17,922	5,570	9,045	32,537

Table 17. Arizona

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Illinois	0	200	0	200
Kansas	0	385	0	385
Texas	0	130	0	130
Total interstate	0	715	0	715

Table 18. Arkansas**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Illinois	8	0	1,712	1,720
Indiana	0	0	156	156
Iowa	272	1,080	258	1,610
Kansas	25	1,114	0	1,139
Kentucky	0	0	47	47
Mississippi	2,500	0	51	2,551
Missouri	285	836	47	1,168
Nebraska	17	1,223	0	1,240
Ohio	0	0	56	56
Texas	0	512	0	512
Total interstate	3,107	4,765	2,327	10,199

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Alabama	1,158	0	0	1,158
California	0	388	0	388
Illinois	0	0	98	98
Louisiana	2,860	0	0	2,860
Mississippi	3,550	0	489	4,039
Missouri	24	0	43	67
Tennessee	7,000	127	0	7,127
Texas	88	0	0	88
Louisiana Gulf	3,000	1,250	42,767	47,017
Texas Gulf	0	0	48	48
Total interstate	17,680	1,765	43,445	62,890
Intrastate	34,286	704	232	35,222
Total	51,966	2,469	43,677	98,112

Table 19. California**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Arkansas	0	388	0	388
Missouri	0	839	0	839
Texas	0	138	0	138
Total interstate	0	1,365	0	1,365

Table 20. Colorado**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Nebraska	100	0	0	100
Total interstate	100	0	0	100

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Total interstate	0	0	0	0
Intrastate	450	0	0	450
Total	450	0	0	450

Table 21. Delaware**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
New Jersey	1,000	0	0	1,000
New York	72	0	0	72
North Carolina	2,000	1,000	0	3,000
Pennsylvania	3,861	1,802	0	5,663
Virginia	3,450	500	0	3,950
Total interstate	10,383	3,302	0	13,685

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Maryland	1,000	0	0	1,000
Total interstate	1,000	0	0	1,000
Intrastate	0	0	0	0
Total	1,000	0	0	1,000

Table 22. Florida**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Georgia	0	118	0	118
Ohio	0	75	0	75
Total interstate	0	193	0	193

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Alabama	280	0	217	497
Georgia	0	1,168	0	1,168
Mississippi	0	0	98	98
Eastern Gulf	2,400	0	0	2,400
Louisiana Gulf	0	0	991	991
Total interstate	2,680	1,168	1,306	5,154
Intrastate	2,000	0	0	2,000
Total	4,680	1,168	1,306	7,154

Table 23. Georgia

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
	<i>thousands of bushels</i>			
Alabama	1,700	1,893	0	3,593
Florida	0	1,168	0	1,168
Illinois	0	874	0	874
Indiana	0	2,539	0	2,539
Kentucky	0	331	0	331
Michigan	0	118	0	118
Ohio	0	2,851	0	2,851
South Carolina	2,223	563	0	2,786
Tennessee	170	1,090	0	1,260
Total interstate	4,093	11,427	0	15,520

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
	<i>thousands of bushels</i>			
Alabama	577	49	0	626
Florida	0	118	0	118
Mississippi	0	754	0	754
South Carolina	645	467	0	1,112
Tennessee	1,000	0	0	1,000
South Atlantic	1,878	1,450	0	3,328
Eastern Gulf	0	600	0	600
Louisiana Gulf	0	4,500	0	4,500
Total interstate	4,100	7,938	0	12,038
Intrastate	6,627	13,297	0	19,924
Total	10,727	21,235	0	31,962

Table 24. Illinois

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
	<i>thousands of bushels</i>			
Alabama	0	0	100	100
Arkansas	0	0	98	98
Indiana	19,200	10,372	105	29,677
Iowa	9,241	9,072	895	19,208
Kentucky	7,600	650	966	9,216
Michigan	26	1,598	0	1,624
Minnesota	1,056	0	706	1,762
Missouri	22,300	3,133	650	26,083
Nebraska	621	0	0	621
Ohio	150	980	291	1,421
South Dakota	0	342	0	342
Tennessee	0	0	45	45
Wisconsin	6,630	0	93	6,723
Total interstate	66,824	26,147	3,949	96,920

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
	<i>thousands of bushels</i>			
Alabama	173	0	2,937	3,110
Arizona	0	200	0	200
Arkansas	8	0	1,712	1,720
Georgia	0	874	0	874
Indiana	1,260	697	0	1,957
Iowa	4,726	66	0	4,792
Kentucky	12	238	449	699
Maryland	0	1,000	0	1,000
Minnesota	0	0	48	48
Mississippi	0	659	1,424	2,083
Missouri	9,215	0	292	9,507
Ohio	0	116	0	116
Tennessee	0	2,090	6,879	8,969
Chicago/Duluth	344	0	0	344
South Atlantic	0	850	0	850
Eastern Gulf	0	1,882	1,059	2,941
Louisiana Gulf	0	3,155	107,078	110,233
Total interstate	15,738	11,827	121,878	149,443
Intrastate	177,340	19,115	1,949	198,404
Total	193,078	30,942	123,827	347,847

Table 25. Indiana**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Illinois	1,260	697	0	1,957
Kentucky	2,150	42	0	2,192
Michigan	1,005	657	0	1,662
Ohio	1,059	659	0	1,718
Total interstate	5,474	2,055	0	7,529

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Alabama	87	1,258	600	1,945
Arkansas	0	0	156	156
Georgia	0	2,539	0	2,539
Illinois	19,200	10,372	105	29,677
Kentucky	6,701	7,604	0	14,305
Maryland	0	3,393	0	3,393
Michigan	17	0	0	17
Mississippi	0	1,621	156	1,777
Missouri	0	0	31	31
North Carolina	0	118	0	118
Ohio	5,168	4,088	0	9,256
South Carolina	0	645	0	645
Tennessee	300	2,698	200	3,198
Chicago/Duluth	1,216	0	0	1,216
South Atlantic	0	10,796	0	10,796
Eastern Gulf	0	2,879	691	3,570
Louisiana Gulf	0	800	20,590	21,390
Total interstate	32,689	48,811	22,529	104,029
Intrastate	87,785	7,080	0	94,865
Total	120,474	55,891	22,529	198,894

Table 26. Iowa**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Illinois	4,726	66	0	4,792
Minnesota	3,359	809	0	4,168
Missouri	1,800	0	56	1,856
Nebraska	10,544	0	0	10,544
South Dakota	17,500	250	0	17,750
Wisconsin	746	66	0	812
Total interstate	38,675	1,191	56	39,922

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Alabama	0	901	2,046	2,947
Arkansas	272	1,080	258	1,610
Illinois	9,241	9,072	895	19,208
Kansas	518	138	0	656
Kentucky	0	0	103	103
Minnesota	2,051	0	0	2,051
Mississippi	0	2,598	545	3,143
Missouri	3,631	13,655	0	17,286
Nebraska	440	922	0	1,362
South Dakota	21	0	0	21
Tennessee	0	325	2,538	2,863
Texas	0	512	0	512
Wisconsin	204	0	0	204
Chicago/Duluth	259	0	0	259
Eastern Gulf	0	0	1,000	1,000
Louisiana Gulf	0	1,026	26,857	27,883
Texas Gulf	0	1,228	0	1,228
Pacific N.W.	0	4,454	0	4,454
Direct Exports	0	1,849	0	1,849
Total interstate	16,637	37,760	34,242	88,639
Intrastate	170,671	24,498	0	195,169
Total	187,308	62,258	34,242	283,808

Table 27. Kansas

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
	<i>thousands of bushels</i>			
Iowa	518	138	0	656
Missouri	6,600	1,124	0	7,724
Nebraska	8,447	2,613	0	11,060
Oklahoma	2,200	682	0	2,882
South Dakota	6	0	0	6
Texas	170	0	0	170
Total interstate	17,941	4,557	0	22,498

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
	<i>thousands of bushels</i>			
Arizona	0	385	0	385
Arkansas	25	1,114	0	1,139
Missouri	2,200	1,573	0	3,773
Nebraska	1,540	40	0	1,580
Texas	6	1,991	0	1,997
Louisiana Gulf	0	0	235	235
Texas Gulf	1,393	400	0	1,793
Total interstate	5,164	5,503	235	10,902
Intrastate	11,318	1,698	0	13,016
Total	16,482	7,201	235	23,918

Table 28. Kentucky

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
	<i>thousands of bushels</i>			
Illinois	12	238	449	699
Indiana	6,701	7,604	0	14,305
Iowa	0	0	103	103
Ohio	1,200	2,300	0	3,500
Tennessee	3,708	113	0	3,821
Total interstate	11,621	10,255	552	22,428

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
	<i>thousands of bushels</i>			
Alabama	1,857	2,399	0	4,256
Arkansas	0	0	47	47
Georgia	0	331	0	331
Illinois	7,600	650	966	9,216
Indiana	2,150	42	0	2,192
Maryland	0	1,000	0	1,000
Mississippi	0	0	151	151
Ohio	1,200	125	0	1,325
Tennessee	1,535	1,292	1,540	4,367
Eastern Gulf	0	399	1,513	1,912
Louisiana Gulf	0	0	17,139	17,139
Total interstate	14,342	6,238	21,356	41,936
Intrastate	1,988	421	95	2,504
Total	16,330	6,659	21,451	44,440

Table 29. Louisiana**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Arkansas	2,860	0	0	2,860
Mississippi	2,000	65	0	2,065
Total interstate	4,860	65	0	4,925

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Mississippi	1,227	0	274	1,501
Tennessee	0	0	196	196
Texas	1,485	0	0	1,485
Eastern Gulf	0	0	247	247
Louisiana Gulf	7,080	66	26,708	33,854
Texas Gulf	1,039	0	0	1,039
Direct Exports	0	0	94	94
Total interstate	10,831	66	27,519	38,416
Intrastate	7,205	65	0	7,270
Total	18,036	131	27,519	45,686

Table 30. Maryland**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Delaware	1,000	0	0	1,000
Illinois	0	1,000	0	1,000
Indiana	0	3,393	0	3,393
Kentucky	0	1,000	0	1,000
New Jersey	2,400	158	0	2,558
North Carolina	5,000	5,000	0	10,000
Ohio	0	1,000	0	1,000
Pennsylvania	750	362	0	1,112
Virginia	14,376	380	47	14,803
Total interstate	23,526	12,293	47	35,866

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Pennsylvania	307	404	0	711
Virginia	0	0	48	48
Total interstate	307	404	48	759
Intrastate	4,000	120	0	4,120
Total	4,307	524	48	4,879

Table 31. Michigan**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Indiana	17	0	0	17
Total interstate	17	0	0	17

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Georgia	0	118	0	118
Illinois	26	1,598	0	1,624
Indiana	1,005	657	0	1,662
North Carolina	0	845	0	845
Ohio	2,873	679	0	3,552
South Carolina	0	653	0	653
Chicago/Duluth	105	0	0	105
Toledo	1,553	0	0	1,553
Saginaw	64	0	0	64
South Atlantic	0	11,480	0	11,480
Louisiana Gulf	0	0	505	505
Direct Exports	781	4,570	0	5,351
Total interstate	6,407	20,600	505	27,512
Intrastate	4,479	230	0	4,709
Total	10,886	20,830	505	32,221

Table 32. Minnesota**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Illinois	0	0	48	48
Iowa	2,051	0	0	2,051
North Dakota	3,900	4,617	0	8,517
Ohio	0	0	51	51
South Dakota	1,157	2,097	0	3,254
Wisconsin	363	0	0	363
Total interstate	7,471	6,714	99	14,284

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Alabama	0	133	1,277	1,410
Illinois	1,056	0	706	1,762
Iowa	3,359	809	0	4,168
Mississippi	0	0	198	198
Missouri	0	192	0	192
Nebraska	0	954	0	954
South Dakota	336	0	0	336
Tennessee	0	0	1,526	1,526
Wisconsin	164	0	0	164
Eastern Gulf	0	2,687	0	2,687
Louisiana Gulf	0	0	45,587	45,587
Pacific N.W.	0	5,760	0	5,760
Total interstate	4,915	10,535	49,294	64,744
Intrastate	81,985	20,982	51	103,018
Total	86,900	31,517	49,345	167,762

Table 33. Mississippi**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Alabama	85	1,170	461	1,716
Arkansas	3,550	0	489	4,039
Florida	0	0	98	98
Georgia	0	754	0	754
Illinois	0	659	1,424	2,083
Indiana	0	1,621	156	1,777
Iowa	0	2,598	545	3,143
Kentucky	0	0	151	151
Louisiana	1,227	0	274	1,501
Minnesota	0	0	198	198
Missouri	0	0	620	620
Ohio	0	0	188	188
Tennessee	0	719	408	1,127
Total interstate	4,862	7,521	5,012	17,395

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Alabama	5,577	1,034	0	6,611
Arkansas	2,500	0	51	2,551
Louisiana	2,000	65	0	2,065
Tennessee	5,050	257	0	5,307
Eastern Gulf	1,000	1,035	109	2,144
Louisiana Gulf	3,000	1,066	28,806	32,872
Total interstate	19,127	3,457	28,966	51,550
Intrastate	29,746	67	825	30,638
Total	48,873	3,524	29,791	82,188

Table 34. Missouri**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Arkansas	24	0	43	67
Illinois	9,215	0	292	9,507
Indiana	0	0	31	31
Iowa	3,631	13,655	0	17,286
Kansas	2,200	1,573	0	3,773
Minnesota	0	192	0	192
Nebraska	9,500	8,862	0	18,362
Total interstate	24,570	24,282	366	49,218

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Alabama	433	0	0	433
Arkansas	285	836	47	1,168
California	0	839	0	839
Illinois	22,300	3,133	650	26,083
Iowa	1,800	0	56	1,856
Kansas	6,600	1,124	0	7,724
Mississippi	0	0	620	620
Nebraska	1,565	0	0	1,565
Tennessee	0	507	508	1,015
Texas	0	5,155	0	5,155
Eastern Gulf	0	0	357	357
Louisiana Gulf	0	1,077	53,196	54,273
Texas Gulf	0	1,418	0	1,418
Total interstate	32,983	14,089	55,434	102,506
Intrastate	10,932	9,316	47	20,295
Total	43,915	23,405	55,481	122,801

Table 35. Nebraska**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Iowa	440	922	0	1,362
Kansas	1,540	40	0	1,580
Minnesota	0	954	0	954
Missouri	1,565	0	0	1,565
South Dakota	4,000	1,028	0	5,028
Total interstate	7,545	2,944	0	10,489

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Alabama	0	350	0	350
Arkansas	17	1,223	0	1,240
Colorado	100	0	0	100
Illinois	621	0	0	621
Iowa	10,544	0	0	10,544
Kansas	8,447	2,613	0	11,060
Missouri	9,500	8,862	0	18,362
South Dakota	262	0	0	262
Eastern Gulf	0	350	46	396
Louisiana Gulf	0	0	1,522	1,522
Texas Gulf	0	285	0	285
Pacific N.W.	0	1,212	0	1,212
Direct Exports	0	1,800	0	1,800
Total interstate	29,491	16,695	1,568	47,754
Intrastate	70,659	1,500	0	72,159
Total	100,150	18,195	1,568	119,913

Table 36. New Jersey**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Pennsylvania	19	0	0	19
Total interstate	19	0	0	19

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Delaware	1,000	0	0	1,000
Maryland	2,400	158	0	2,558
Pennsylvania	242	0	0	242
Total interstate	3,642	158	0	3,800
Intrastate	0	0	0	0
Total	3,642	158	0	3,800

Table 37. New York

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Ohio	14	66	0	80
Pennsylvania	61	61	0	122
Total interstate	75	127	0	202

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Delaware	72	0	0	72
Ohio	90	0	0	90
Pennsylvania	161	404	0	565
Total interstate	323	404	0	727
Intrastate	169	30	0	199
Total	492	434	0	926

Table 38. North Carolina

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Indiana	0	118	0	118
Michigan	0	845	0	845
Ohio	0	5,888	0	5,888
South Carolina	2,400	113	0	2,513
Virginia	300	264	0	564
Total interstate	2,700	7,228	0	9,928

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Delaware	2,000	1,000	0	3,000
Maryland	5,000	5,000	0	10,000
South Carolina	4,024	676	0	4,700
Tennessee	3,400	500	0	3,900
Virginia	9,600	2,317	0	11,917
South Atlantic	0	2,123	1,203	3,326
Total interstate	24,024	11,616	1,203	36,843
Intrastate	70,655	4,246	0	74,901
Total	94,679	15,862	1,203	111,744

Table 39. North Dakota
Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
	<i>thousands of bushels</i>			
South Dakota	850	317	0	1,167
Total interstate	850	317	0	1,167

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
	<i>thousands of bushels</i>			
Minnesota	3,900	4,617	0	8,517
South Dakota	168	0	0	168
Pacific N.W.	0	1,612	0	1,612
Total interstate	4,068	6,229	0	10,297
Intrastate	4,000	0	0	4,000
Total	8,068	6,229	0	14,297

Table 40. Ohio

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
	<i>thousands of bushels</i>			
Illinois	0	116	0	116
Indiana	5,168	4,088	0	9,256
Kentucky	1,200	125	0	1,325
Michigan	2,873	679	0	3,552
New York	90	0	0	90
Total interstate	9,331	5,008	0	14,339

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
	<i>thousands of bushels</i>			
Alabama			1,029	1,029
Arkansas	0	0	56	56
Florida	0	75	0	75
Georgia	0	2,851	0	2,851
Illinois	150	980	291	1,421
Indiana	1,059	659	0	1,718
Kentucky	1,200	2,300	0	3,500
Maryland	0	1,000	0	1,000
Minnesota	0	0	51	51
Mississippi	0	0	188	188
New York	14	66	0	80
North Carolina	0	5,888	0	5,888
Pennsylvania	2,200	0	0	2,200
South Carolina	0	284	0	284
Tennessee	0	0	4,114	4,114
Virginia	0	2,740	0	2,740
Toledo	24,895	165	0	25,060
North Atlantic	0	4,900	0	4,900
South Atlantic	0	16,039	0	16,039
Louisiana Gulf	0	1,164	22,923	24,087
Direct Exports	0	132	0	132
Total interstate	29,518	39,243	28,652	97,413
Intrastate	61,214	9,329	0	70,543
Total	90,732	48,572	28,652	167,956

Table 41. Oklahoma

Soybean Receipts to Various Destinations

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Kansas	2,200	682	0	2,882
Louisiana Gulf	0	0	974	974
Total interstate	2,200	682	974	3,856

Table 42. Pennsylvania

Soybean Shipments from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Maryland	307	404	0	711
New Jersey	242	0	0	242
New York	161	404	0	565
Ohio	2,200	0	0	2,200
Total interstate	2,910	808	0	3,718

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Delaware	3,861	1,802	0	5,663
Maryland	750	362	0	1,112
New Jersey	19	0	0	19
New York	61	61	0	122
North Atlantic	2,000	0	0	2,000
South Atlantic	640	371	0	1,011
Total interstate	7,331	2,596	0	9,927
Intrastate	819	646	0	1,465
Total	8,150	3,242	0	11,392

Table 43. South Carolina

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Georgia	645	467	0	1,112
Indiana	0	645	0	645
Michigan	0	653	0	653
North Carolina	4,024	676	0	4,700
Ohio	0	284	0	284
Total interstate	4,669	2,725	0	7,394

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Alabama	47	0	0	47
Georgia	2,223	563	0	2,786
North Carolina	2,400	113	0	2,513
South Atlantic	750	1,016	0	1,766
Total interstate	5,420	1,692	0	7,112
Intrastate	5,859	2,207	0	8,066
Total	11,279	3,899	0	15,178

Table 44. South Dakota

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Iowa	21	0	0	21
Minnesota	336	0	0	336
Nebraska	262	0	0	262
North Dakota	168	0	0	168
Total interstate	787	0	0	787

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Illinois	0	342	0	342
Iowa	17,500	250	0	17,750
Kansas	6	0	0	6
Minnesota	1,157	2,097	0	3,254
Nebraska	4,000	1,028	0	5,028
North Dakota	850	317	0	1,167
Texas	0	205	0	205
Texas Gulf	0	112	0	112
Pacific N.W.	0	5,000	0	5,000
Total interstate	23,513	9,351	0	32,864
Intrastate	637	0	0	637
Total	24,150	9,351	0	33,501

Table 45. Tennessee

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Alabama	1,230	1,013	311	2,554
Arkansas	7,000	127	0	7,127
Georgia	1,000	0	0	1,000
Illinois	0	2,090	6,879	8,969
Indiana	300	2,698	200	3,198
Iowa	0	325	2,538	2,863
Kentucky	1,535	1,292	1,540	4,367
Louisiana	0	0	196	196
Minnesota	0	0	1,526	1,526
Mississippi	5,050	257	0	5,307
Missouri	0	507	508	1,015
North Carolina	3,400	500	0	3,900
Ohio	0	0	4,114	4,114
Total interstate	19,515	8,809	17,812	46,136

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Alabama	6,140	5,422	1,056	12,618
Georgia	170	1,090	0	1,260
Illinois	0	0	45	45
Kentucky	3,708	113	0	3,821
Mississippi	0	719	408	1,127
Virginia	0	500	0	500
Eastern Gulf	0	658	1,000	1,658
Louisiana Gulf	0	1,000	32,119	33,119
Total interstate	10,018	9,502	34,628	54,148
Intrastate	22,263	662	1,193	24,118
Total	32,281	10,164	35,821	78,266

Table 46. Texas

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Arkansas	88	0	0	88
Iowa	0	512	0	512
Kansas	6	1,991	0	1,997
Louisiana	1,485	0	0	1,485
Missouri	0	5,155	0	5,155
South Dakota	0	205	0	205
Total interstate	1,579	7,863	0	9,442

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Arizona	0	130	0	130
Arkansas	0	512	0	512
California	0	138	0	138
Kansas	170	0	0	170
Louisiana Gulf	0	0	894	894
Texas Gulf	3,158	685	0	3,843
Direct Exports	0	10,000	0	10,000
Total interstate	3,328	11,465	894	15,687
Intrastate	5,191	1,070	0	6,261
Total	8,519	12,535	894	21,948

Table 47. Virginia

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Maryland	0	0	48	48
North Carolina	9,600	2,317	0	11,917
Ohio	0	2,740	0	2,740
Tennessee	0	500	0	500
Total interstate	9,600	5,557	48	15,205

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Delaware	3,450	500	0	3,950
Maryland	14,376	380	47	14,803
North Carolina	300	264	0	564
South Atlantic	5,666	473	1,160	7,299
Louisiana Gulf	0	0	133	133
Total interstate	23,792	1,617	1,340	26,749
Intrastate	788	0	0	788
Total	24,580	1,617	1,340	27,537

Table 48. Washington

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Pacific N.W.	0	834	24	858
Total interstate	0	834	24	858
Intrastate	0	0	0	0
Total	0	834	24	858

Table 49. Wisconsin

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Iowa	204	0	0	204
Minnesota	164	0	0	164
Total interstate	368	0	0	368

Soybean Shipments to Various Destinations

Destination	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Alabama	0	0	99	99
Illinois	6,630	0	93	6,723
Iowa	746	66	0	812
Minnesota	636	0	0	363
Louisiana Gulf	0	0	3,579	3,579
Total interstate	7,739	66	3,771	11,576
Intrastate	1,303	0	0	1,303
Total	9,042	66	3,771	12,879

Table 50. Chicago Port Area

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Illinois	344	0	0	344
Indiana	1,216	0	0	1,216
Iowa	259	0	0	259
Michigan	105	0	0	105
Total	1,924	0	0	1,924

Table 51. Eastern Gulf Ports

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Alabama	2,729	960	6,369	10,058
Florida	2,400	0	0	2,400
Georgia	0	600	0	600
Illinois	0	1,882	1,059	2,941
Indiana	0	2,879	691	3,570
Iowa	0	0	1,000	1,000
Kentucky	0	399	1,513	1,912
Louisiana	0	0	247	247
Minnesota	0	2,687	0	2,687
Mississippi	1,000	1,035	109	2,144
Missouri	0	0	357	357
Nebraska	0	350	46	396
Tennessee	0	658	1,000	1,658
Total	6,129	11,450	12,391	29,970

Table 52. Louisiana Gulf

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Alabama	0	0	1,617	1,617
Arkansas	3,000	1,250	42,767	47,017
Florida	0	0	991	991
Georgia	0	4,500	0	4,500
Illinois	0	3,155	107,078	110,233
Indiana	0	800	20,590	21,390
Iowa	0	1,026	26,857	27,883
Kansas	0	0	235	235
Kentucky	0	0	17,139	17,139
Louisiana	7,080	66	26,708	33,854
Michigan	0	0	505	505
Minnesota	0	0	45,587	45,587
Mississippi	3,000	1,066	28,806	32,872
Missouri	0	1,077	53,196	54,273
Nebraska	0	0	1,522	1,522
Ohio	0	1,164	22,923	24,087
Oklahoma	0	0	974	974
Tennessee	0	1,000	32,119	33,119
Texas	0	0	894	894
Virginia	0	0	133	133
Wisconsin	0	0	3,579	3,579
Total	13,080	15,104	434,220	462,404

Table 53. North Atlantic Ports**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Ohio	0	4,900	0	4,900
Pennsylvania	2,000	0	0	2,000
Total	2,000	4,900	0	6,900

Table 54. Pacific Northwest**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Iowa	0	4,454	0	4,454
Minnesota	0	5,760	0	5,760
Nebraska	0	1,212	0	1,212
North Dakota	0	1,612	0	1,612
South Dakota	0	5,000	0	5,000
Washington	0	834	24	858
Total	0	18,872	24	18,896

Table 55. Saginaw Port Area**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Michigan	64	0	0	64
Total	64	0	0	64

Table 56. South Atlantic Ports**Soybean Receipts from Various Origins**

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Georgia	1,878	1,450	0	3,328
Illinois	0	850	0	850
Indiana	0	10,796	0	10,796
Michigan	0	11,480	0	11,480
North Carolina	0	2,123	1,203	3,326
Ohio	0	16,039	0	16,039
Pennsylvania	640	371	0	1,011
South Carolina	750	1,016	0	1,766
Virginia	5,666	473	1,160	7,299
Total	8,934	44,598	2,363	55,895

Table 57. Texas Gulf
Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Arkansas	0	0	48	48
Iowa	0	1,228	0	1,228
Kansas	1,393	400	0	1,793
Louisiana	1,039	0	0	1,039
Missouri	0	1,418	0	1,418
Nebraska	0	285	0	285
South Dakota	0	112	0	112
Texas	3,158	685	0	3,843
Total	5,590	4,128	48	9,766

Table 58. Toledo Port Area
Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Michigan	1,553	0	0	1,553
Ohio	24,895	165	0	25,060
Total	26,448	165	0	26,613

Table 59. Direct Exports from Interior Points

Soybean Receipts from Various Origins

Origin	Mode of transportation			Total
	Truck	Rail	Barge	
<i>thousands of bushels</i>				
Iowa	0	1,849	0	1,849
Louisiana	0	0	94	94
Michigan	781	4,570	0	5,351
Nebraska	0	1,800	0	1,800
Ohio	0	132	0	132
Texas	0	10,000	0	10,000
Total	781	18,351	94	19,226

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