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Freight Movements in the United States

Interregional Flow Patterns
and Transportation Requirements in 1977

Mack N. Leath, Lowell D. Hill, and Stephen W. Fuller

North Central Regional Research Publication No. 276
Southern Cooperative Series Bulletin 254
Illinois Bulletin 769

Agricultural Experiment Station
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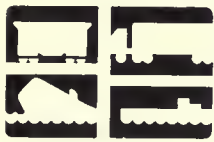
ABSTRACT

The volume of oats marketed has declined in recent years, and interregional movements are relatively small in comparison to those of other major grains. Nevertheless, moving the crop from its highly concentrated production region to points where it is used requires a significant transportation capacity. To provide a basis for policy and investment decisions affecting the U.S. grain transportation system, detailed information on movements of oats and other grains during 1977 was collected from 3,500 grain merchandising, processing, and exporting firms in 41 states. Survey data on receipts and shipments for each state or substate area were expanded to represent total volumes for those areas and were verified by comparison with information from secondary sources. The data, which represent the most comprehensive and accurate information available on movements of oats, are presented and summarized in this bulletin.

Keywords: Grain flows, grain shipping, grain transportation, interregional analysis, oats, oat marketing.

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Oat Movements



in the United States

Interregional Flow Patterns
and Transportation Requirements in 1977

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Agricultural Experiment Stations of Alabama, Arkansas, California, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, North Dakota, Ohio, Oklahoma, Oregon, South Dakota, Tennessee, Texas, Wisconsin, and the United States Department of Agriculture cooperating.

The participating agricultural experiment stations and government agencies provide equal opportunities in programs and employment.
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* Voting member and project leader for the participating organization.

Preface

The research reported in this bulletin is the first effort ever made to survey grain shippers and receivers nationwide; it is the most comprehensive study of grain movements ever conducted. Members of the technical committees, including representatives of Agricultural Experiment Stations in 25 states, assisted in conducting an industry survey to collect flow data for wheat, corn, soybeans, sorghum, oats, barley, and rye. In addition, surveys were conducted in 16 other states through contracts with 15 universities located in those states. The industry surveys were coordinated by Lowell D. Hill, Department of Agricultural Economics, University of Illinois at Urbana-Champaign. The data were tabulated and summarized under the supervision of Mack N. Leath, Economics and Statistics Service, U.S. Department of Agriculture. The success of this research project is due to the cooperation of thousands of grain marketing firms and the efforts of researchers in the many participating states.

The research was funded in part through contract DACW 72-78-C-0005 with the Institute of Water Resources, U.S. Army Corps of Engineers. Supplemental support was provided by the Federal Railroad Administration of the U.S. Department of Transportation, the Maritime Administration of the U.S. Department of Commerce, and the St. Lawrence Seaway Development Corporation. Administration of grant funds was coordinated by Lowell D. Hill, University of Illinois at Urbana-Champaign.

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Oat Movements in the United States

Interregional Flow Patterns and Transportation Requirements in 1977

INTRODUCTION

Information about the origin and destination of grain produced in the United States and about the modes of transportation used to convey it is important for many policy and investment decisions. Although data on the quantities of grains shipped abroad from each port are available and statistics on the amount of grain shipped on the inland waterways are published annually, little information has been available that can be used to match origins with destinations and to identify the mode of transportation used.

Through personal interviews with over 3,500 grain merchandisers, processors, and exporters throughout the United States, data on origins, destinations, and transport modes have now been assembled for corn, wheat, soybeans, sorghum, oats, barley, and rye. This publication summarizes the data for oats. Other publications in this series provide similar information for the other grains.

Oats are the third most important feed grain produced in the United States. Although annual production has averaged about 600 million bushels in recent years, the total supply available decreased each year during the 1970s except for 1977-78 (Table 1). The amount of oats used for human consumption during that decade was nearly constant at about 42 million bushels annually. The amount used for seed is almost totally a function of the acreage planted; it has accounted for about 40 million bushels annually.

The principal domestic use of oats is for livestock feed. The amount used varies greatly from year to year in response to changes in the relative price and supply of oats as compared to other feed grains. During the 1970s, the annual usage for feed generally exceeded 500 million bushels.

The smallest and most unstable component of the annual demand for oats has been the export demand. Export shipments of oats decreased from 57 million bushels in 1973-74 to an estimated 4

Table 1. Oat Supply and Distribution in the United States for Marketing Years from 1970-71 to 1979-80

Marketing year ^a	Supply				Disappearance				
	Beginning stocks	Production	Imports	Total	Food	Seed	Feed ^b	Exports	Total
<i>millions of bushels</i>									
1970-71	548	917	1	1,466	41	56	779	19	895
1971-72	571	881	3	1,455	43	52	742	21	858
1972-73	597	692	3	1,292	42	48	722	19	831
1973-74	461	667	0 ^c	1,128	44	44	673	57	820
1974-75	308	601	0 ^c	909	42	42	583	19	686
1975-76	223	639	1	863	42	43	559	14	658
1976-77	205	540	1	746	43	46	483	10	582
1977-78	164	753	2	919	43	42	509	12	606
1978-79	313	582	1	896	42	36	525	13	616
1979-80 ^d	280	526	1	807	43	35	489	4	571

Source: *Feed Situation*, Economics and Statistics Service, U.S. Department of Agriculture (various issues).

^a Beginning June 1.

^b Residual — approximates feed usage.

^c Less than 500,000 bushels.

^d Preliminary data.

million bushels in 1979–80. Exports have averaged only 10 million bushels annually during the marketing years from 1975–76 to 1979–80.

The volume of oats that must be transported is relatively small in comparison with other grains. Oats are less dense (more bulky) than other grains and consequently are usually processed or fed to livestock near the area where they are produced. Oat production is concentrated in the northern Great Plains and the western Corn Belt (Figure 1). The area of concentrated production extends from eastern South Dakota to Lake Michigan.

In 1977, oat production in the U.S. totaled 753 million bushels. Minnesota and South Dakota produced 302 million bushels, two-fifths of U.S. production (Table 2). Iowa and Wisconsin accounted for another fifth of the U.S. total. In contrast to the other major feed grains, over 60 percent of the oats produced in 1977 were used for seed and livestock feed on the farms where they were produced; less than 300,000 bushels were sold from farms. Sales by farmers in Minnesota and South Dakota alone accounted for almost 49 percent of all such sales in 1977.

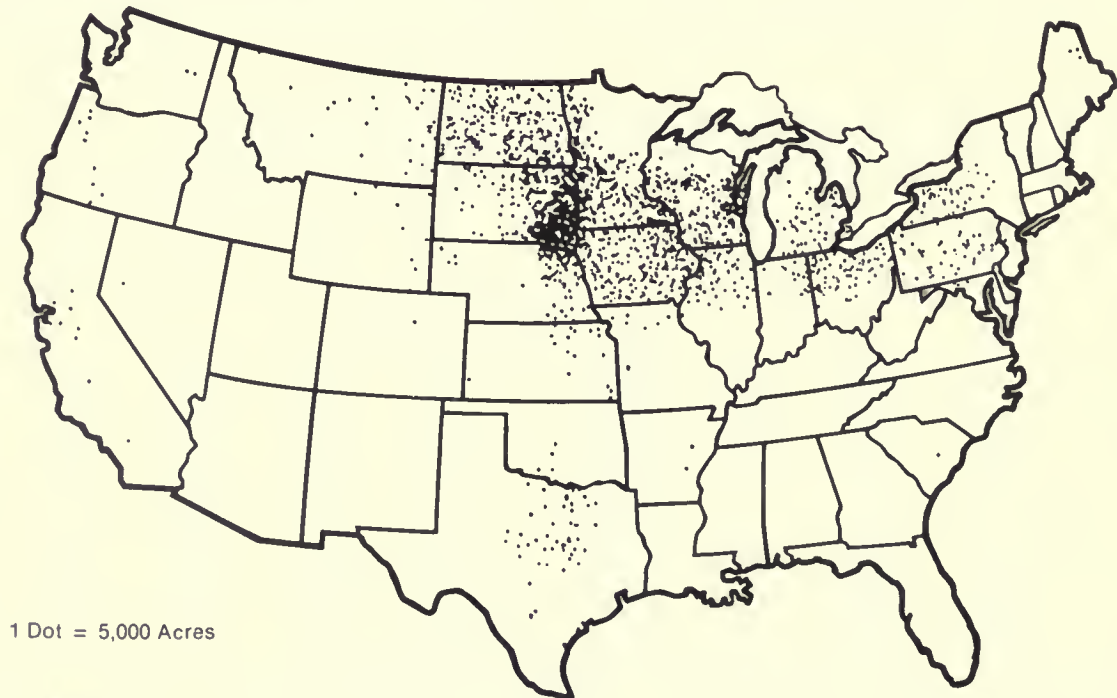
PURPOSE OF STUDY

Analysis of grain flow patterns can reveal the geographical nature of grain markets and the types of transportation services required by the grain industry. This information is useful to grain firms in identifying additional marketing opportunities and in making decisions about where to locate new handling, storage, and processing facilities.

Of equal importance is the value of this information to those who set federal and state transportation policies. The formulation of rational grain transportation policies depends upon knowledge of existing grain flows and associated transportation modes. In many situations, firms or public agencies make decisions affecting the production, storage, and transportation of grain without adequate information about grain distribution patterns and the demands that those decisions will place on the various transportation modes. The objectives of this study were:

1. To determine the volume of oats moving between various origins and destinations

Figure 1. Acreages of oats harvested in 1974.



2. To determine the extent to which the various transportation modes are employed in the movement of oats in the U.S.

METHODOLOGY

For the purposes of this study, the United States was divided into 132 numbered regions and 31 ports, as shown in Figure 2. Data for the 31 ports were aggregated into 13 port areas located in four major export regions. The specific ports included in each port area are listed with their identifying numbers in Table 3.

Flow data for oats were collected for the 1977 calendar year primarily through personal interviews with representatives of grain handling, storage, and processing firms in 41 states. The firms from which data were obtained included country elevators, inland terminal elevators, river terminal elevators, feed manufacturers, export elevators, commercial feedlots, and processors. A representative from each state's Agricultural Experiment Station was responsible for drawing the sample and conducting the interviews.

The sampling of inland grain elevators in the particular state was carried out by listing the elevators in descending order of storage capacity. Starting with the largest, elevators were added to the sample until the total of their storage capacities was equal to at least 25 percent of the inland elevator storage capacity in that state. Not less than 10 percent of the remaining elevators were then selected at random. For river elevators the procedure was simpler: a minimum of 50 percent of the elevators were selected by random sampling.

Feed manufacturing firms in each state were arrayed on the basis of their production capacity. Starting with the largest, feed firms on the list were added to the sample until the total of their production capacities equalled or exceeded 10 percent of the total feed manufacturing capacity in the state. Ten percent or more of the remaining firms were then selected at random and included in the sample. All exporters and processors were included in the interviews.* Data based on random samples were expanded in proportion to the sampling rate to convert the data into estimates for the entire region or state.

The same types of information were gathered from all of the grain handlers and processors interviewed. Each firm was asked to identify the volume of oats that it received from each region and

* Only one major processor did not provide data for the study. Data on receipts by that firm were estimated from information furnished by shippers.

Table 2. Production, Farm Use, and Sales of Oats by State for the 1977 Crop

State	Oats produced ^a	Amount used on farms where produced ^b	Amount sold ^b
<i>thousands of bushels</i>			
Alabama	1,190	642	548
Arkansas	3,500	1,015	2,485
California	4,590	643	3,947
Colorado	1,473	899	574
Florida	540	362	178
Georgia	2,750	1,402	1,348
Idaho	2,565	1,411	1,154
Illinois	20,435	11,852	8,583
Indiana	6,360	3,498	2,862
Iowa	82,350	55,174	27,176
Kansas	9,450	6,709	2,741
Kentucky	315	243	72
Louisiana	378	249	129
Maine	1,750	385	1,365
Maryland	1,080	864	216
Michigan	18,700	7,293	11,407
Minnesota	161,840	82,538	79,302
Mississippi	585	363	222
Missouri	7,250	6,162	1,088
Montana	5,000	3,550	1,450
Nebraska	40,600	26,390	14,210
Nevada	220	161	59
New Jersey	387	271	116
New York	15,370	9,837	5,533
North Carolina ..	3,150	1,984	1,166
North Dakota	60,000	39,600	20,400
Ohio	21,830	12,225	9,605
Oklahoma	5,980	4,066	1,914
Oregon	5,200	1,508	3,692
Pennsylvania	18,550	14,283	4,267
South Carolina ..	2,530	1,316	1,214
South Dakota ...	140,400	75,816	64,584
Tennessee	645	406	239
Texas	24,000	16,320	7,680
Utah	550	396	154
Virginia	1,276	957	319
Washington	1,505	813	692
West Virginia	492	454	38
Wisconsin	76,050	63,882	12,168
Wyoming	1,938	1,280	658
U.S. total	752,774	457,219	295,555

^a Production data obtained from *Field Crops: Estimates by States, 1974-78, Acreage, Yield, Production*, Statistical bulletin no. 646, Crop Reporting Board, Economics and Statistics Service, U.S. Department of Agriculture (December, 1980), p. 20.

^b Farm use and sale data taken from *Field Crops: Production, Disposition, Value, 1977-78*, Crop Reporting Board, Economics and Statistics Service, U.S. Department of Agriculture, CrPr 1(79) (April 11, 1979), p. 7. These data were adjusted proportionately in states for which the data on quantity produced were revised in December, 1980.

Table 3. Export Regions, Port Areas, and the Ports Included in Each Area

Export region and port area ^a		Ports included in the general area	
Area number	Export area	Port number	Port city
Great Lakes Region			
7101	Duluth-Superior	2750	Duluth, MN Superior, WI
7102	Chicago	2164 2165 2166 2246	Milwaukee, WI Manitowoc, WI Racine, WI Chicago, IL
7103	Toledo	1845	Toledo, OH Huron, OH Erie, PA Buffalo, NY
		0751	
7104	Saginaw	2067	Carrollton, MI Saginaw, MI Zilwaukee, MI Detroit, MI
		2068	
Atlantic Region			
7201	North Atlantic	0101 0755 0958	Portland, ME Albany, NY Philadelphia, PA
7202	South Atlantic	1122 1224 1544	Baltimore, MD Norfolk, VA North Charleston, SC
Gulf Region			
7301	East Gulf	2570 2641	Pascagoula, MS Mobile, AL
7302	Louisiana Gulf	3149 3169	Mississippi River Lake Charles, LA
7303	North Texas Gulf	3742	Beaumont, TX Port Arthur, TX Houston, TX Galveston, TX
7304	South Texas Gulf	3759 3760	Brownsville, TX Corpus Christi, TX
Pacific Region			
7401	Columbia River	4562	Kalama, WA Longview, WA Vancouver, WA Portland, OR Astoria, OR
		4652 4663	
7402	Puget Sound	4547	Seattle, WA Tacoma, WA
7403	California Ports	4753 4754 4755 4756 4757	Sacramento, CA Stockton, CA Long Beach, CA San Francisco, CA San Diego, CA

^a These port areas will be used in this report to avoid disclosure of data from individual firms.

the volume received by each mode of transportation. The firms were also asked to identify each region or port area for which their shipments were destined and the quantity shipped by each mode.

Agricultural Experiment Station representatives verified the accuracy of the data collected, expanded the sample data to state totals, and delivered the summary data for each grain and for every substate region to the U.S. Department of Agriculture for processing. As receivers' and shippers' data were tabulated, the Experiment Station representative in each state checked any discrepancies to identify potential data errors and to arrive at a single number for each origin-destination pair. Insofar as possible, the state representatives checked the data for each shipment to ascertain that they were consistent and logical.

VERIFICATION OF DATA

The accuracy of the data on the volume of oats shipped between the various origins and destinations by each mode of transportation was verified by several direct and indirect comparisons with data from other sources. One indirect check was made by totaling interstate shipments and subtracting from that value the total of interstate receipts for each state to determine how closely the results agreed with the surplus or deficit calculated for the state.* Exact correspondence was not expected since the quantities used by livestock feeders and processors were estimated rather than determined from actual consumption data. Any major discrepancies, however, were investigated to verify that they did not indicate significant errors in the survey data.

A second check on total volume was made by comparing total receipts at each port with official data on inspections for export as published by the Market News Service of the U.S. Department of Agriculture (Table 4). Because there were few opportunities for either set of data to miss significant volumes, these numbers compared very closely. Discrepancies between receipts and exports at some of the port areas were explained by shipments to domestic destinations from export elevators, shipments to processing plants located in the port area, and changes in inventory between the beginning and end of the year. There were, however, some unexplained differences between export shipments

* The surplus or deficit for each state was calculated by adding the 1977 production to the stocks in all positions as of January 1, 1977, then subtracting the estimated amount used for livestock feed, processing, and seed and deducting the stocks in all positions as of January 1, 1978.

Table 4. Comparison of 1977 Oat Receipts, Shipments, and Inspections for Export at Various Port Areas

Port area ^a	Quantities determined by survey			Inspections for export ^c
	Re- ceipts	Shipments		
		Do- mestic ^b	Ex- port	
<i>thousands of bushels</i>				
Great Lakes Region				
Duluth-Superior . . .	10,961	1,695	8,604	7,988
Chicago	1,003	920	99	0
Subtotal	11,964	2,615	8,703	7,988
Gulf Region				
East Gulf	275	0	0	0
Louisiana Gulf	5,156	1,229	476	324
Subtotal	5,431	1,229	476	324
Pacific Region				
Columbia River . . .	2,867	0	0	0
Puget Sound	212	0	192	0
Subtotal	3,079	0	192	0
Total	20,474	3,844	9,372	8,312

^a See Table 3 for a list of the ports included in each area.

^b Includes quantities reshipped to other port locations.

^c Inspections for export conducted under the U.S. Grain Standards Act and reported in *Grain Market News*, Agricultural Marketing Service, U.S. Department of Agriculture, Vol. 26, No. 2 (January 13, 1978), p. 18.

reported by survey respondents and published data on inspections for export.

Supplemental information about grain shipments on inland waterways was provided by the U.S. Army Corps of Engineers. Since these data were based on the actual bill of lading for each shipment, they were, in principle, a complete census of all barge shipments. As Table 5 shows, the survey data and the Corps of Engineers data on state-to-state shipments on inland waterways correspond closely for all originating states except Minnesota. Differences between the two sets of data can be explained in part by (1) a significant number of shipments for which the origins and destinations are noted as "unknown" in the Corps data, (2) changes in the destination of a barge after it left the loading dock, (3) incomplete reporting of loadings to the Corps of Engineers, and (4) errors in reporting by survey respondents. Differences for shipments from Minnesota were mainly a result of the destination not being known at the time of shipment.

The last method of validation provides important insight into U.S. Department of Transportation data based on a 1 percent sample of all rail bills of lading. These data were expanded to develop estimates of

Table 5. Comparison of 1977 Waterway Movements of Oats in the U.S. as Reported by Survey Respondents and the U.S. Army Corps of Engineers

Originating state	Destination state	Survey results	Corps of Engineers data ^a
<i>thousands of bushels</i>			
Alabama	Tennessee	0	94
Illinois	Alabama	300	250
	Florida	162	269
	Illinois	82	81
	Mississippi	162	162
	Tennessee	0	83
	Subtotal	706	845
Iowa	Alabama	272	342
	Louisiana	418	0
	Mississippi	0	433
	Tennessee	278	206
	Subtotal	968	981
Kentucky	Ohio	150	0
Louisiana	Florida	1,229	535
Minnesota and Wisconsin	Alabama	1,404	1,511
	Florida	0	340
	Illinois	0	85
	Kentucky	1,843	244
	Louisiana	3,088	1,467
	Michigan	0	51
	Mississippi	1,201	623
	Missouri	642	1,742
	New York	110	0
Tennessee	1,531	978	
	Subtotal	9,819	7,041
U.S. total		12,872	9,496

^a Shipments to unknown destinations are excluded.

annual shipments and receipts in each state and then compared with the rail shipments reported by survey respondents (Table 6). Some similarities are apparent, but there are also many major differences. In contrast to the situation for other grains, the estimates developed from the 1 percent waybill sample were substantially higher than the survey estimates for Iowa and South Dakota. Additional analysis of both data sets led to the conclusion that there are serious sampling errors in the waybill statistics and that those data should therefore be used with caution. These results also suggest that sampling errors may be present in the survey data for oats. It is possible that in several states certain elevators that specialize in oats were not included in the sample drawn.

The comparisons between various data sources generally increase the confidence in the accuracy

of estimates derived from sampling a less than perfectly identified population. The logic of each flow reported in these tables has been checked by the university person that organized the survey in each state. Where internal inconsistencies were found, the data and the sampling rates were adjusted with assistance from grain specialists and industry personnel in the state. The flow estimates presented in the following sections represent the best information available on the actual volume of oats transported between the regions of the United States.

OVERVIEW OF MOVEMENTS

This section summarizes selected data and presents a general overview of oat movement patterns. Detailed data on receipts and shipments for each region and port are presented in the last section of this bulletin.

Shipments and Receipts by State

Grain marketing firms in the United States reported shipping about 228 million bushels of oats in 1977. About 53 percent of that amount moved to destinations within the states in which it originated. Much of the total amount, of course, is accounted for by the same grain being shipped in sequence by several firms.

Intrastate shipments for each state and mode of transportation are summarized in Table 7. Trucks, the predominant mode of transportation, carried about 43 percent of the total intrastate shipment volume. Rail shipments accounted for about 35 percent of the total, and 22 percent was sold to local farmers. A large portion of the intrastate movements consisted of shipments from country elevators to terminal elevators for storage and reshipment. Movements within Minnesota accounted for almost one-half of the total volume of intrastate shipments in the United States. Sizeable movements also occurred within Iowa and Nebraska.

The patterns of interstate oat flows to domestic destinations are illustrated in Figure 3. In contrast to intrastate movements, the predominant mode of transportation used for interstate shipments was the railroad, which carried 52 million bushels, or almost 49 percent of the total volume (Table 8). Almost one-fourth of the volume moving by railroads originated in Minnesota. Pennsylvania, Tennessee, and Wisconsin were the principal destinations for these shipments. North Dakota and South Dakota also originated substantial rail shipments, most of which were destined for Minnesota.

Table 6. Comparison of 1977 Rail Movements of Oats as Reported by Survey Respondents and as Estimated from the 1 Percent Waybill Sample

Originating state	Destination state	Survey results	Waybill data
		<i>thousands of bushels</i>	
Alabama	Alabama	789	975
	Florida	324	313
	Georgia	228	344
	Other states	226	0
	Subtotal	1,567	1,632
Arkansas	Tennessee	50	325
California	New York	0	194
Florida	Florida	1,494	563
	Georgia	72	0
	Subtotal	1,566	563
Georgia	Georgia	180	0
	New York	0	475
	North Carolina	23	0
	Subtotal	203	475
Idaho	Utah	240	0
	Washington	0	806
	Subtotal	240	806
Illinois	Iowa	20	0
	New Mexico	0	469
	Ohio	67	0
	Pennsylvania	602	0
	South Carolina	20	0
	Tennessee	116	0
	Wisconsin	3	0
	Subtotal	828	469
Indiana	Alabama	3	0
	Tennessee	26	0
	Subtotal	29	0
Iowa	Alabama	0	325
	Indiana	0	469
	Iowa	130	2,775
	Minnesota	158	488
	Mississippi	275	563
	Missouri	1,254	3,125
	New Jersey	0	469
	Ohio	0	756
	South Dakota	0	350
	Texas	431	1,056
	Other states	1,159	0
	Subtotal	3,407	10,376
Kansas	Missouri	0	388
Kentucky	North Carolina	446	581
Louisiana	Arkansas	20	0
Maine	Maine	106	0
	New York	0	344
	Vermont	194	0
	Subtotal	300	344

Continued

Table 6 — continued

Originating state	Destination state	Survey results	Waybill data
		<i>thousands of bushels</i>	
Michigan	Delaware	0	344
	New York	11	475
	Ohio	0	925
	Pennsylvania	1,600	375
	Other states	2,477	0
	Subtotal	4,088	2,119
Minnesota	Iowa	419	9,250
	Louisiana	748	344
	Maryland	35	481
	Minnesota	28,910	25,319
	Missouri	0	531
	New Jersey	0	500
	Ohio	500	1,406
	Pennsylvania	5,120	1,106
	Virginia	0	519
	Wisconsin	4,177	6,338
	Other states	1,965	0
	Subtotal	41,874	45,794
Mississippi	Alabama	45	0
	Louisiana	138	1,281
	Mississippi	3,100	1,056
	Subtotal	3,283	2,337
Missouri	Georgia	180	525
	Kentucky	0	563
	Missouri	981	981
	Texas	0	456
	Other states	673	0
	Subtotal	1,834	2,525
Montana	Minnesota	568	0
	Washington	0	419
	Subtotal	568	419
Nebraska	Arkansas	126	456
	Colorado	45	525
	Missouri	1,338	1,850
	Nebraska	5,375	906
	Oklahoma	660	1,013
	Texas	1,366	738
	Other states	775	0
	Subtotal	9,685	5,488
New York	All destinations	74	0
North Carolina	Florida	384	388
	North Carolina	3	0
	Subtotal	387	388
North Dakota	Minnesota	5,936	4,956
	Wisconsin	71	794
	Other states	202	0
	Subtotal	6,209	5,750

Continued

Table 6 — continued

Originating state	Destination state	Survey results	Waybill data
		<i>thousands of bushels</i>	
Ohio	Massachusetts	0	363
	Maryland	0	613
	Pennsylvania	3,739	469
	Other states	2,659	0
	Subtotal	6,398	1,445
Oregon	All destinations	1,195	0
South Carolina	All destinations	573	0
South Dakota	Colorado	0	363
	Iowa	701	3,669
	Minnesota	6,805	6,988
	Missouri	180	3,425
	Ohio	0	331
	Other states	562	0
	Subtotal	8,248	14,776
Tennessee	Delaware	0	563
	Georgia	241	563
	Other states	338	0
	Subtotal	579	1,126
Utah	All destinations	75	0
Virginia	All destinations	70	0
Wisconsin	Illinois	88	188
	Minnesota	91	2,275
	Pennsylvania	0	469
	Wisconsin	0	600
	Other states	314	0
	Subtotal	493	3,532
U.S. total		94,289	101,852

Table 7. 1977 Intrastate Shipments of Oats for Each State and Mode of Transportation

Originating state	Mode of transportation				Total
	Rail	Truck	Barge	Farm truck ^a	
	<i>thousands of bushels</i>				
Alabama	789	516	0	28	1,333
Arizona	0	215	0	0	215
Arkansas	0	759	0	20	779
California	0	714	0	0	714
Florida	1,494	315	0	0	1,809
Georgia	180	579	0	269	1,028
Illinois	0	1,973	82	2,295	4,350
Indiana	0	297	0	46	343
Iowa	130	4,138	0	10,984	15,252
Louisiana	0	711	0	0	711

Continued

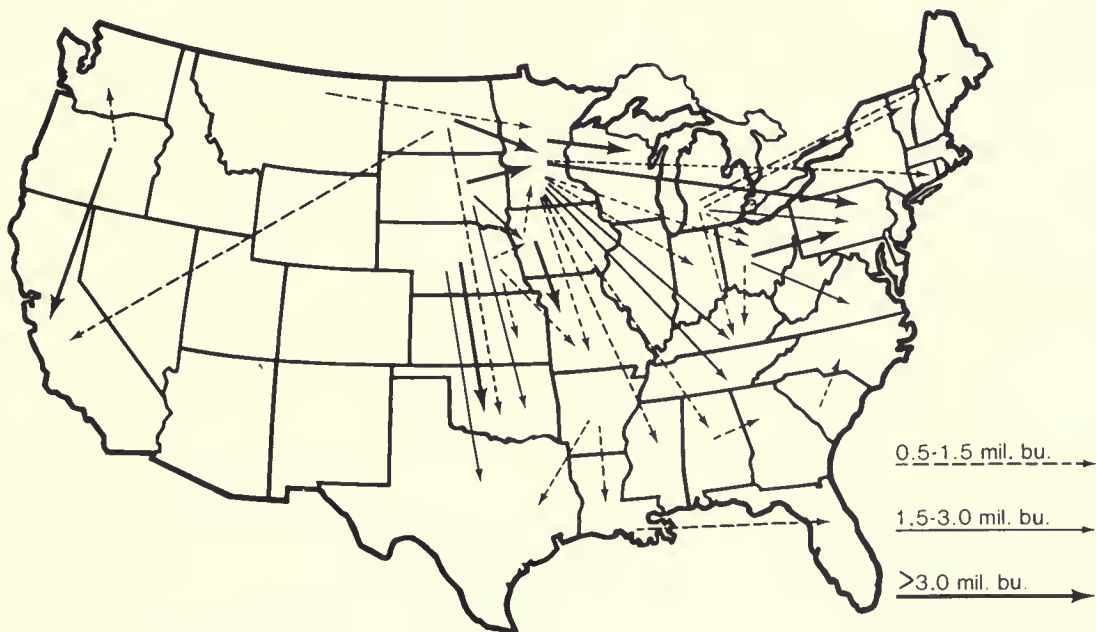
Table 7 — continued

Originating state	Mode of transportation				Total
	Rail	Truck	Barge	Farm truck ^a	
<i>thousands of bushels</i>					
Maine	106	0	0	0	106
Michigan	10	1,806	0	0	1,816
Minnesota	28,910	21,430	0	5,801	56,141
Mississippi	3,100	159	0	0	3,259
Missouri	981	0	0	0	981
Nebraska	5,375	6,003	0	6,764	18,142
New York	30	106	0	54	190
North Carolina	3	1,162	0	0	1,165
Ohio	428	5,532	0	0	5,960
Oklahoma	0	35	0	0	35
Oregon	137	2,769	0	0	2,906
Pennsylvania	0	984	0	0	984
South Carolina	492	10	0	223	725
South Dakota	0	40	0	0	40
Tennessee	6	180	0	0	186
Wisconsin	0	1,363	0	203	1,566
Wyoming	0	0	0	5	5
Total volume	42,171	51,796	82	26,692	120,741
Percentage of total volume	34.9	42.9	0.1	22.1	100.0

Note: These data include shipments to port cities within the state but not exports to destinations outside the United States.

^a This column reports sales by elevators to farmers within the state. Not all states included farm sales in their survey questionnaires, so these data are incomplete and underestimate total shipments to farmers.

Figure 3. Patterns of oat flows to domestic destinations in 1977.



Several states reported sizeable interstate truck shipments. Most of these shipments moved relatively short distances to adjacent states, where some of the grain was used by feed processors and some was stored in terminal elevators and later reshipped to other destinations.

Barges carried only 12 percent of the oats shipped across state lines. Minnesota originated over three-fourths of the total volume shipped in the U.S. by barge. Several southeastern states were important destinations for Minnesota's barge shipments and also for those originating in Illinois and Iowa.

Table 8. 1977 Interstate Shipments of Oats for Each State and Mode of Transportation

Originating state	Mode of transportation				Total
	Rail	Truck	Barge	Farm truck ^a	
	<i>thousands of bushels</i>				
Alabama	778	609	0	0	1,387
Arkansas	50	2,591	0	0	2,641
Colorado	0	24	0	0	24
Florida	72	196	0	0	268
Georgia	23	0	0	0	23
Idaho	240	0	0	0	240
Illinois	828	487	624	41	1,980
Indiana	29	179	0	0	208
Iowa	3,277	3,917	968	0	8,162
Kentucky	446	0	150	0	596
Louisiana	20	0	1,229	0	1,249
Maine	194	0	0	0	194
Maryland	0	2	0	0	2
Michigan	4,078	2,004	0	0	6,082
Minnesota	12,964	6,450	9,819 ^b	26	29,259
Mississippi	183	341	0	0	524
Missouri	853	29	0	0	882
Montana	568	569	0	0	1,137
Nebraska	4,310	3,206	0	1,594	9,110
New York	44	70	0	0	114
North Carolina	384	0	0	0	384
North Dakota	6,209	5,596	0	0	11,805
Ohio	5,970	3,048	0	0	9,018
Oregon	1,058	4,470	0	0	5,528
Pennsylvania	0	51	0	0	51
South Carolina	81	771	0	5	857
South Dakota	8,248	4,430	0	0	12,678
Tennessee	573	108	0	0	681
Texas	0	18	0	0	18
Utah	75	276	0	0	351
Virginia	70	0	0	0	70
Washington	0	152	0	0	152
Wisconsin	493	601	0 ^b	12	1,106
Wyoming	0	0	0	12	12
Total volume	52,118	40,195	12,790	1,690	106,793
Percentage of total volume	48.8	37.6	12.0	1.6	100.0

Note: These data include shipments to port cities but not exports to destinations outside the United States. Movements to ports from each state are shown in Table 10.

^a This column reports sales by elevators to farmers located in other states. Not all states included farm sales in their survey questionnaires, so these data are incomplete and underestimate total shipments to farmers.

^b Barge shipments from Wisconsin are included with shipments from Minnesota to avoid disclosure of individual firms' operations.

About one-third of the oats shipped to Louisiana by barge were later reshipped to Florida.

The volume of oats received in each state from other states is shown in Table 9. Minnesota (including the Duluth-Superior port area) was the predominant destination. Minnesota and Wisconsin were the most important markets in the Midwest, whereas Pennsylvania and Louisiana were the leading markets in the East and South, respectively. Other states receiving more than 5 million bushels from interstate origins were California, Kentucky, Missouri, and Oklahoma.

Movements to Ports

Table 10 shows the amount of oats that moved to port locations from each of the originating states by the three modes of commercial transportation. Figure 4 illustrates the pattern of these movements. Almost two-thirds of the volume of oats that moved to ports originated in Minnesota and North Dakota. Receipts at the Great Lakes export region accounted for about 58 percent of the total amount received by all ports. Nearly 48 percent of the oats shipped to ports went by rail, and Minnesota and North Dakota originated the largest volume of rail shipments. Iowa shipped a significant amount by rail and ranked third among all states that originated rail shipments of oats to port regions. Thirty-four percent of the oats shipped to port regions went by truck. Oregon shipped the largest amount by truck, accounting for over 39 percent of the 7 million bushels that moved by truck to ports. Less than four million bushels were shipped by barge to export regions; about 86 percent of that amount originated in Minnesota.

Figure 5 shows each state's share of the total volume of oats shipped to export regions. Minnesota shipped the greatest amount, originating 39.5 percent of the total volume. North Dakota and Oregon also shipped significant volumes, ranking second and third, respectively, among states that shipped oats to port areas. Together, these two states accounted for over one-third of the total volume moving to export locations.

An estimated 20 million bushels of oats were received at all port areas in 1977, of which 8.3 million bushels were inspected for export. (Table 11). The remainder was processed, reshipped to other destinations, or retained as increased inventory at port elevators. About 96 percent of the oat exports were handled by port elevators in the Great Lakes region, and Duluth-Superior, the principal port area for oat exports, accounted for all of that volume.

The Louisiana Gulf area ranked second in volume; 324,000 bushels were inspected for export in that area.

Foreign Destinations for U.S. Exports

Oats shipped from the various origins to a specific port area are commingled at the port elevator. It is not possible to trace the movement of oats from a particular state through the port system to their final destination, and therefore no attempt was made to determine whether a particular ocean vessel was loaded with, for example, Minnesota oats or North Dakota oats. It is nonetheless of interest to examine one more link in the market chain that connects U.S. farmers with foreign feeders and processors.

The destination countries for oats exported from the major export regions of the United States are shown in Table 12. In 1977, the Federal Republic of Germany (West Germany) purchased 4.7 million bushels, or over 56 percent of the total volume exported, making that nation the leading buyer of U.S. oats. The Netherlands, the next largest buyer, received about 1.8 million bushels in 1977. All other purchasing nations received less than 1 million bushels each.

RECEIPTS AND SHIPMENTS BY AREA

Estimates of the flow of oats by each mode of transportation and for every study region are presented in Tables 13-159. Receipts and shipments at each port area are listed in Tables 160-169. Data for substate areas were aggregated into totals for an entire state in cases where volumes were small or where publishing the data for a substate area would have revealed the operations of an individual firm. These estimates represent the most comprehensive and best data available on the volume of oats transported between each of the regions of the United States.

A detailed study of the flows will likely lead some readers to the conclusion there are inefficiencies in the shipment of oats among states. Shipping oats in both directions between two states is one example of an apparent inefficiency in the marketing pattern. However, most of the shipments reported in this study reflect sellers' attempts to take advantage of profitable marketing opportunities that occur at a particular moment. It is not possible to provide a rationale for all of the movements without complete

Table 9. 1977 Interstate Receipts of Oats for Each State and Mode of Transportation

Destination state	Mode of transportation				Total
	Rail	Truck	Barge	Farm truck ^a	
<i>thousands of bushels</i>					
Alabama	48	225	1,976	0	2,249
Arizona	0	164	0	0	164
Arkansas	347	15	0	0	362
California	1,003	5,297	0	0	6,300
Colorado	45	6	0	0	51
Connecticut	594	0	0	0	594
Florida	789	182	1,391	0	2,362
Georgia	803	872	0	51	1,726
Illinois	346	725	0	0	1,071
Indiana	14	1,594	0	1,149	2,757
Iowa	1,842	1,499	0	38	3,379
Kansas	37	8	0	0	45
Kentucky	290	1,157	1,843	1,905	5,195
Louisiana	1,966	1,863	3,506	0	7,335
Maine	975	0	0	0	975
Maryland	35	0	0	29	64
Massachusetts	0	13	0	0	13
Michigan	0	3	0	0	3
Minnesota	13,558	5,937	0	230	19,725
Mississippi	814	187	1,363	0	2,364
Missouri	2,772	2,917	642	0	6,331
Nebraska	222	336	0	342	900
New Jersey	0	45	0	0	45
New York	11	10	110	0	131
North Carolina	1,108	533	0	0	1,641
Ohio	867	731	150	314	2,062
Oklahoma	1,103	4,998	0	0	6,101
Oregon	0	80	0	374	454
Pennsylvania	11,100	3,537	0	329	14,966
South Carolina	293	81	0	5	379
Tennessee	1,337	235	1,809	16	3,397
Texas	1,797	1,158	0	0	2,955
Utah	240	163	0	0	403
Vermont	1,672	363	0	12	2,047
Virginia	1,743	199	0	0	1,942
Washington	188	655	0	0	843
Wisconsin	4,251	4,728	0	119	9,098
Wyoming	58	42	0	0	100
Total volume	52,268	40,558	12,790	4,913	110,529
Percentage of total volume	47.3	36.7	11.6	4.4	100.0

Note: Receipts at port cities are included in the data for the respective states. The receipts reported here also include 150,000 bushels imported by rail and 363,000 bushels shipped by truck from Canada.

^a This column shows elevator receipts in each state from farmers located in other states as reported by elevators in the receiving states.

Table 10. 1977 Movements of Oats to Points of Export for Each Originating State by Four Modes of Transportation

Originating state	Export region	Mode of transportation				Total
		Rail	Truck	Barge	Farm truck	
<i>thousands of bushels</i>						
Illinois	Great Lakes	3	7	82	0	92
Iowa	Great Lakes	37	0	0	0	37
	Gulf	1,134	0	418	0	1,552
Minnesota	Great Lakes	3,008	1,575	0	0	4,583
	Gulf	748	43	3,088 ^a	0	3,879
Montana	Great Lakes	230	124	0	0	354
North Dakota	Great Lakes	3,322	1,434	0	0	4,756
	Pacific	31	181	0	0	212
Oregon	Pacific	137	2,730	0	0	2,867
South Dakota	Great Lakes	845	420	0	0	1,265
Wisconsin	Great Lakes	179	433	0	144	756
Chicago	Great Lakes	0	14	0	0	14
Duluth-Superior	Great Lakes	107	0	0	0	107
All states	Great Lakes	7,731	4,007	82	144	11,964
	Gulf	1,882	43	3,506	0	5,431
	Pacific	168	2,911	0	0	3,079
Total volume		9,781	6,961	3,588	144	20,474
Percentage of total volume		47.8	34.0	17.5	0.7	100.0

^a Barge shipments from Wisconsin firms to Gulf ports are included with those from Minnesota region 2705 to avoid disclosure of individual firms' operations.

Figure 4. Patterns of oat flows to port areas in 1977.

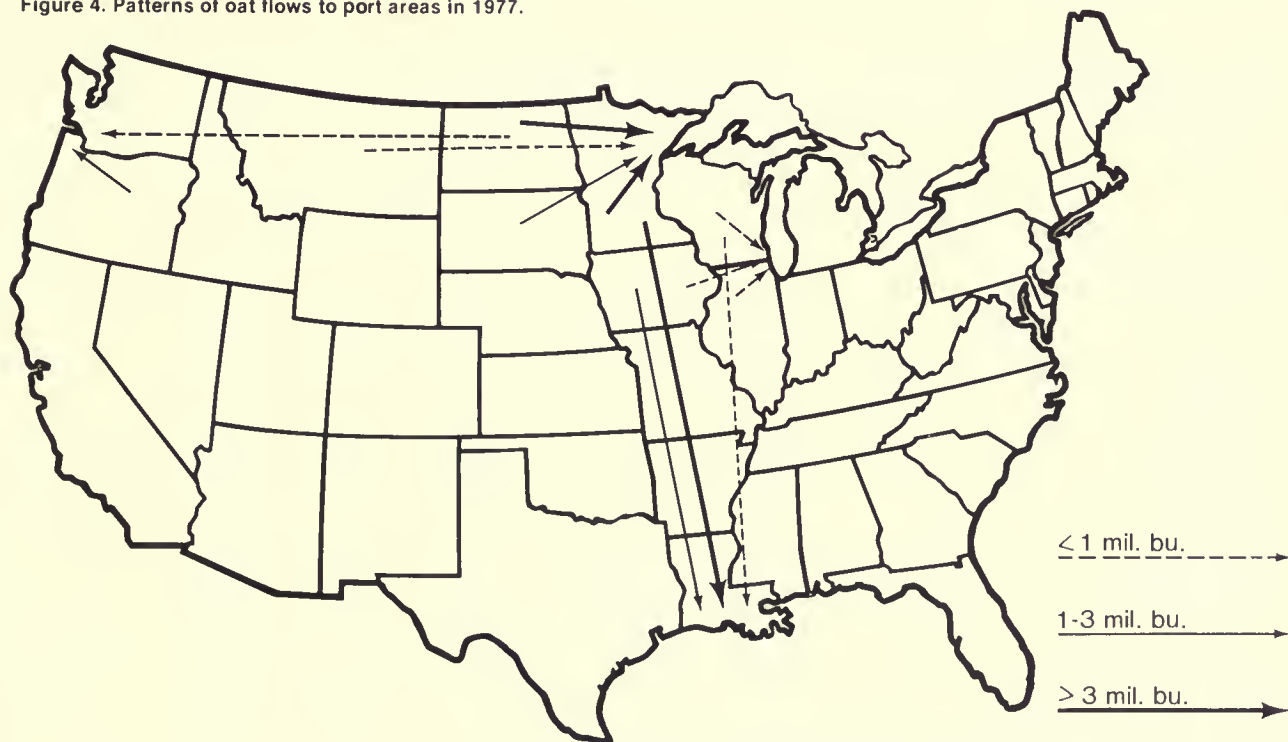


Figure 5. Percentage of 1977 oat movements to export regions from each originating state.

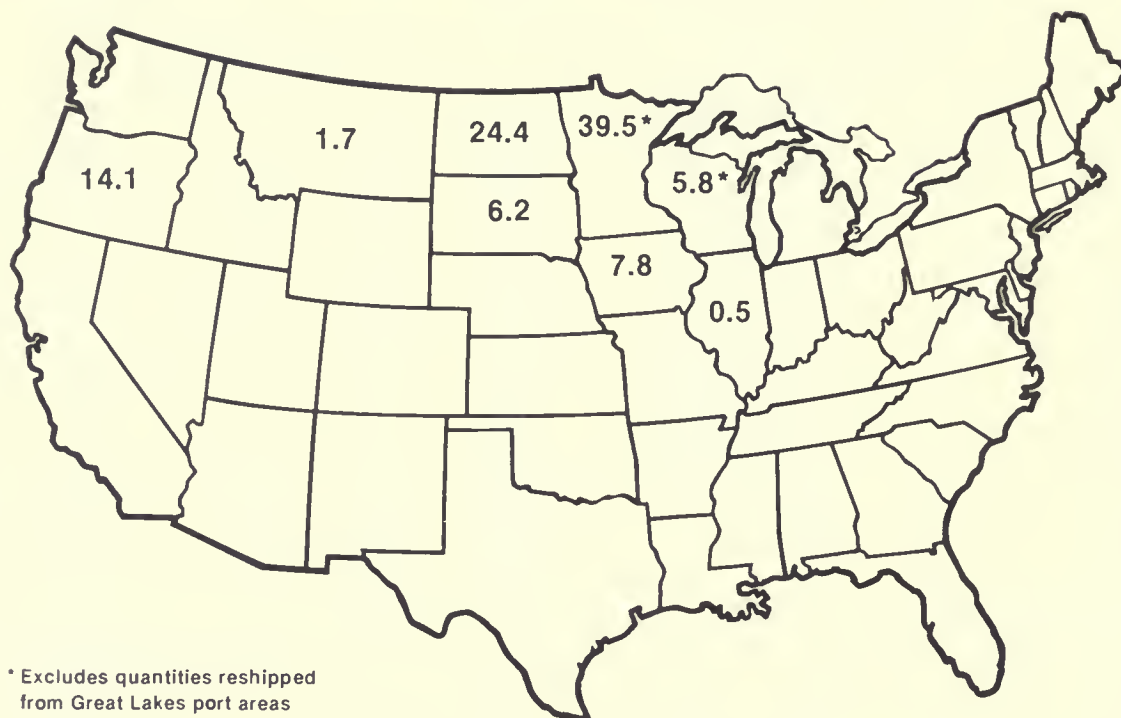


Table 11. 1977 Receipts of Oats at Port Areas by Each Mode of Transportation

Export region and port area	Mode of transportation				Total receipts	Inspections for export ^b
	Rail	Truck	Barge	Farm truck ^a		
<i>thousands of bushels</i>						
Great Lakes Region						
Duluth-Superior	7,439	3,522	0	0	10,961	7,988
Chicago	292	485	82	144	1,003	0
Subtotal	7,731	4,007	82	144	11,964	7,988
Gulf Region						
East Gulf	275	0	0	0	275	0
Louisiana Gulf	1,607	43	3,506	0	5,156	324
Subtotal	1,882	43	3,506	0	5,431	324
Pacific Region						
Columbia River	137	2,730	0	0	2,867	0
Puget Sound	31	181	0	0	212	0
Subtotal	168	2,911	0	0	3,079	0
Total receipts	9,781	6,961	3,588	144	20,474	8,312
Percentage of total receipts	47.8	34.0	17.5	0.7	100.0	0

Note: Shipments between firms within a port area are excluded from these data.

^a This column reports oats delivered by farmers directly to elevators in each port area.

^b Inspections for export conducted under the United States Grain Standards Act and reported in *Grain Market News*, Agricultural Marketing Service, U.S. Department of Agriculture, Vol. 26, No. 2 (January 13, 1978), p. 18.

knowledge of daily price and transportation relationships. Local supply and demand vary throughout the marketing year, and buyers constantly seek the most economical supply source. Changes in supplies, demands, and transportation costs result in

Table 12. 1977 Exports of U.S. Oats by Export Region and Destination

Destination	Export region ^a		Total
	Great Lakes	Gulf	
	<i>thousands of bushels</i>		
Belgium	175	0	175
Germany, Fed. Rep. of (W)	4,699	0	4,699
Iraq	766	0	766
Jamaica	0	28	28
Japan	462	0	462
Netherlands	1,791	0	1,791
Panama	0	3	3
USSR	0	293	293
Venezuela	95	0	95
Total	7,988	324	8,312

Source: *Grain Market News*, Agricultural Marketing Service, U.S. Department of Agriculture, Vol. 26, No. 5 (February 3, 1978), pp. 11-16.

^a Oats were not shipped from Atlantic and Pacific regions during 1977.

frequent changes in the most profitable shipping pattern.

The availability of storage space at harvest time is also an important factor in determining oat shipments. If local storage facilities are filled with wheat when oats move from the farms, country elevators may be forced to ship oats to various terminal locations such as Minneapolis for storage. If these movements are made by rail under rates with transit privileges, this grain is committed to moving to domestic and export points beyond the terminal location. Later in the year supplies in the local region may be exhausted, and feed mills and livestock feeders in that area will begin purchasing oats from outside sources, reversing the earlier outbound flow. Many other factors, such as the availability of transportation, have a substantial impact on oat movements. An inadequate supply of rail cars during periods of peak movement may force oats to flow in a pattern that is not the most economical.

A detailed analysis of the influence of these factors is beyond the scope of this publication. Readers interested in more detailed information about the types of firms involved in oat movements and the seasonality of those movements should contact Agricultural Experiment Station representatives in the participating states.

TABLE 13. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2607, ALABAMA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
1500 SOUTH CAROLINA	0	3	0	0	3
1700 FLORIDA	0	196	0	0	196
2500 MISSISSIPPI	45	0	0	0	45
2607 ALABAMA	63	390	0	550	1003
TOTAL VOLUME	108	589	0	550	1247

TABLE 14. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2607, ALABAMA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
1603 GEORGIA	0	5	0	0	5
1700 FLORIDA	18	50	0	0	68
2500 MISSISSIPPI	41	58	0	0	99
2607 ALABAMA	63	390	0	28	481
TOTAL VOLUME	122	503	0	28	653

TABLE 15. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2608, ALABAMA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1903 INDIANA	3	0	0	0	3
2256 ILLINOIS	0	0	300	0	300
2270 ILLINOIS	0	20	0	0	20
2400 TENNESSEE	0	6	0	0	6
2608 ALABAMA	726	126	0	11	863
2705 MINNESOTA	0	0	1404	0	1404
2801 IOWA	0	0	272	0	272
TOTAL VOLUME	729	152	1976	11	2868

TABLE 16. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2608, ALABAMA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1400 NORTH CAROLINA	97	0	0	0	97
1500 SOUTH CAROLINA	29	0	0	0	29
1603 GEORGIA	0	7	0	0	7
1609 GEORGIA	228	449	0	0	677
1700 FLORIDA	306	0	0	0	306
2319 KENTUCKY	9	0	0	0	9
2400 TENNESSEE	25	40	0	0	65
2500 MISSISSIPPI	25	0	0	0	25
2608 ALABAMA	726	126	0	0	852
TOTAL VOLUME	1445	622	0	0	2067

TABLE 17. 1977 DAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 4400, ARIZONA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
3203 NORTH DAKOTA	0	92	0	0	92
3301 SOUTH DAKOTA	0	48	0	0	48
4000 COLORADO	0	24	0	0	24
4400 ARIZONA	0	215	0	0	215
TOTAL VOLUME	0	379	0	0	379

TABLE 18. 1977 DAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 4400, ARIZONA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
4400 ARIZONA	0	215	0	0	215
TOTAL VOLUME	0	215	0	0	215

TABLE 19. 1977 DAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3005, ARKANSAS

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2802 IOWA	186	0	0	0	186
TOTAL VOLUME	186	0	0	0	186

TABLE 20. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3017, ARKANSAS

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
2802 IOWA	0	15	0	0	15
TOTAL VOLUME	0	15	0	0	15

TABLE 21. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3038, ARKANSAS

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
2400 TENNESSEE	15	0	0	0	15
3038 ARKANSAS	0	759	0	3065	3824
3100 LOUISIANA	20	0	0	0	20
3405 NEBRASKA	126	0	0	0	126
TOTAL VOLUME	161	759	0	3065	3985

TABLE 22. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 3038, ARKANSAS

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
2400 TENNESSEE	50	95	0	0	145
2500 MISSISSIPPI	0	128	0	0	128
3038 ARKANSAS	0	759	0	20	779
3100 LOUISIANA	0	1460	0	0	1460
3700 TEXAS	0	908	0	0	908
TOTAL VOLUME	50	3350	0	20	3420

TABLE 23. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 4701, CALIFORNIA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2705 MINNESOTA	27	19	0	0	46
3301 SOUTH DAKOTA	0	51	0	0	51
3302 SOUTH DAKOTA	0	79	0	0	79
4501 WASHINGTON	0	72	0	0	72
4601 OREGON	15	519	0	0	534
4603 OREGON	0	514	0	0	514
4703 CALIFORNIA	0	84	0	0	84
TOTAL VOLUME	42	1338	0	0	1380

TABLE 24. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 4703, CALIFORNIA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
3202 NORTH DAKOTA	0	276	0	0	276
4601 OREGON	0	1573	0	0	1573
4603 OREGON	0	922	0	0	922
4703 CALIFORNIA	0	0	0	3715	3715
4704 CALIFORNIA	0	348	0	0	348
TOTAL VOLUME	0	3119	0	3715	6834

TABLE 25. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 4703, CALIFORNIA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
4701 CALIFORNIA	0	84	0	0	84
TOTAL VOLUME	0	84	0	0	84

TABLE 26. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 4704, CALIFORNIA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
3202 NORTH DAKOTA	0	528	0	0	528
4300 UTAH	0	276	0	0	276
4601 OREGON	961	468	0	0	1429
4704 CALIFORNIA	0	282	0	720	1002
TOTAL VOLUME	961	1554	0	720	3235

TABLE 27. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 4704, CALIFORNIA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
4703 CALIFORNIA	0	348	0	0	348
4704 CALIFORNIA	0	282	0	0	282
TOTAL VOLUME	0	630	0	0	630

TABLE 28. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 4000, COLORADO

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
3401 NEBRASKA	0	6	0	0	6
3404 NEBRASKA	41	0	0	0	41
3405 NEBRASKA	4	0	0	0	4
TOTAL VOLUME	45	6	0	0	51

TABLE 29. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY
FIRMS IN AREA 4000, COLORADO

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
4400 ARIZONA	0	24	0	0	24
TOTAL VOLUME	0	24	0	0	24

TABLE 30. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY
FIRMS IN AREA 600, CONNECTICUT

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2705 MINNESOTA	594	0	0	0	594
TOTAL VOLUME	594	0	0	0	594

TABLE 31. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY
FIRMS IN AREA 1700, FLORIDA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1400 NORTH CAROLINA	384	0	0	0	384
1700 FLORIDA	1494	315	0	196	2005
1850 OHIO	81	0	0	0	81
2256 ILLINOIS	0	0	74	0	74
2260 ILLINOIS	0	0	88	0	88
2607 ALABAMA	18	50	0	0	68
2608 ALABAMA	306	0	0	0	306
2705 MINNESOTA	0	132	0	0	132
7302 LOUISIANA GULF	0	0	1229	0	1229
TOTAL VOLUME	2283	497	1391	196	4367

TABLE 32. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 1700, FLORIDA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
1603 GEORGIA	72	0	0	0	72
1700 FLORIDA	1494	315	0	0	1809
2607 ALABAMA	0	196	0	0	196
TOTAL VOLUME	1566	511	0	0	2077

TABLE 33. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 1603, GEORGIA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
1500 SOUTH CAROLINA	0	309	0	51	360
1603 GEORGIA	0	267	0	1112	1379
1609 GEORGIA	0	0	0	18	18
1700 FLORIDA	72	0	0	0	72
1850 OHIO	82	0	0	0	82
2607 ALABAMA	0	5	0	0	5
2608 ALABAMA	0	7	0	0	7
TOTAL VOLUME	154	588	0	1181	1923

TABLE 34. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 1603, GEORGIA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
1400 NORTH CAROLINA	23	0	0	0	23
1603 GEORGIA	0	267	0	216	483
1609 GEORGIA	180	0	0	0	180
TOTAL VOLUME	203	267	0	216	686

TABLE 35. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 1609, GEORGIA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1603 GEORGIA	180	0	0	0	180
1609 GEORGIA	0	312	0	79	391
2400 TENNESSEE	241	102	0	0	343
2608 ALABAMA	228	449	0	0	677
2900 MISSOURI	180	0	0	0	180
TOTAL VOLUME	829	863	0	79	1771

TABLE 36. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 1609, GEORGIA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1609 GEORGIA	0	312	0	53	365
TOTAL VOLUME	0	312	0	53	365

TABLE 37. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 4202, IDAHO

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
4300 UTAH	240	0	0	0	240
TOTAL VOLUME	240	0	0	0	240

TABLE 38. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2256, ILLINOIS

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELLS)					
2103 WISCONSIN	0	49	0	0	49
2256 ILLINOIS	0	828	0	3013	3841
2257 ILLINOIS	0	0	0	357	357
2260 ILLINOIS	0	12	0	0	12
2705 MINNESOTA	57	37	0	0	94
3302 SOUTH DAKOTA	0	6	0	0	6
TOTAL VOLUME	57	932	0	3370	4359

TABLE 39. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2256, ILLINOIS

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELLS)					
1700 FLORIDA	0	0	74	0	74
1850 OHIO	67	61	0	0	128
1901 INDIANA	0	100	0	0	100
1903 INDIANA	0	15	0	0	15
2256 ILLINOIS	0	828	0	666	1494
2257 ILLINOIS	0	0	0	400	400
2258 ILLINOIS	0	141	0	0	141
2260 ILLINOIS	0	69	0	0	69
2270 ILLINOIS	0	250	0	0	250
2608 ALABAMA	0	0	300	0	300
2803 IOWA	20	41	0	0	61
7102 CHICAGO AREA	3	7	82	0	92
TOTAL VOLUME	90	1512	456	1066	3124

TABLE 40. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2257, ILLINOIS

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2257 ILLINOIS	0	75	0	217	292
TOTAL VOLUME	0	75	0	217	292

TABLE 41. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2257, ILLINOIS

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1902 INDIANA	0	55	0	0	55
1903 INDIANA	0	0	0	41	41
2257 ILLINOIS	0	75	0	78	153
TOTAL VOLUME	0	130	0	119	249

TABLE 42. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2258, ILLINOIS

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2256 ILLINOIS	0	141	0	0	141
2258 ILLINOIS	0	64	0	20	84
2260 ILLINOIS	0	122	0	0	122
2900 MISSOURI	0	29	0	0	29
TOTAL VOLUME	0	356	0	20	376

TABLE 43. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2258, ILLINOIS

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
2258 ILLINOIS	0	64	0	35	99
TOTAL VOLUME	0	64	0	35	99

TABLE 44. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2260, ILLINOIS

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
2256 ILLINOIS	0	69	0	0	69
2260 ILLINOIS	0	150	0	1553	1703
2270 ILLINOIS	0	5	0	17	22
TOTAL VOLUME	0	224	0	1570	1794

TABLE 45. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2260, ILLINOIS

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
1700 FLORIDA	0	0	88	0	88
2256 ILLINOIS	0	12	0	0	12
2258 ILLINOIS	0	122	0	0	122
2260 ILLINOIS	0	150	0	860	1010
2270 ILLINOIS	0	0	0	7	7
2500 MISSISSIPPI	0	0	162	0	162
2803 IOWA	0	8	0	0	8
2900 MISSOURI	0	69	0	0	69
TOTAL VOLUME	0	361	250	867	1478

TABLE 46. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2261, ILLINOIS

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2261 ILLINOIS	0	238	0	468	706
2803 IOWA	0	3	0	0	3
TOTAL VOLUME	0	241	0	468	709

TABLE 47. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2261, ILLINOIS

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2261 ILLINOIS	0	238	0	28	266
2900 MISSOURI	0	88	0	0	88
TOTAL VOLUME	0	326	0	28	354

TABLE 48. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2262, ILLINOIS

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2262 ILLINOIS	0	0	0	15	15
TOTAL VOLUME	0	0	0	15	15

TABLE 49. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2270, ILLINOIS

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2256 ILLINOIS	0	250	0	0	250
2257 ILLINOIS	0	0	0	20	20
2260 ILLINOIS	0	0	0	10	10
2270 ILLINOIS	0	0	0	167	167
2803 IOWA	0	250	0	0	250
TOTAL VOLUME	0	500	0	197	697

TABLE 50. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2270, ILLINOIS

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2260 ILLINOIS	0	5	0	0	5
2270 ILLINOIS	0	0	0	221	221
2608 ALABAMA	0	20	0	0	20
TOTAL VOLUME	0	25	0	221	246

TABLE 51. 1977 DAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 1901, INDIANA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1850 OHIO	0	188	0	0	188
1901 INDIANA	0	63	0	1371	1434
1902 INDIANA	0	0	0	136	136
2000 MICHIGAN	0	447	0	0	447
2101 WISCONSIN	0	2	0	1073	1075
2103 WISCONSIN	0	5	0	0	5
2256 ILLINOIS	0	100	0	0	100
2705 MINNESOTA	14	610	0	0	624
7102 CHICAGO AREA	0	28	0	0	28
TOTAL VOLUME	14	1443	0	2580	4037

TABLE 52. 1977 DAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 1901, INDIANA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
903 PENNSYLVANIA	0	14	0	0	14
1825 OHIO	0	10	0	0	10
1850 OHIO	0	13	0	0	13
1901 INDIANA	0	63	0	46	109
1902 INDIANA	0	31	0	0	31
1903 INDIANA	0	11	0	0	11
TOTAL VOLUME	0	142	0	46	188

TABLE 53. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 1902, INDIANA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELLS)					
1825 OHIO	0	0	0	46	46
1901 INDIANA	0	31	0	518	549
1902 INDIANA	0	150	0	1333	1483
2101 WISCONSIN	0	12	0	30	42
2257 ILLINOIS	0	55	0	0	55
2705 MINNESOTA	0	94	0	0	94
TOTAL VOLUME	0	342	0	1927	2269

TABLE 54. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 1902, INDIANA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELLS)					
1902 INDIANA	0	150	0	0	150
TOTAL VOLUME	0	150	0	0	150

TABLE 55. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 1903, INDIANA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELLS)					
1901 INDIANA	0	11	0	0	11
1903 INDIANA	0	42	0	249	291
2101 WISCONSIN	0	7	0	0	7
2256 ILLINOIS	0	15	0	0	15
2705 MINNESOTA	0	31	0	0	31
TOTAL VOLUME	0	106	0	249	355

TABLE 56. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 1903, INDIANA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELLS)					
1825 OHIO	0	9	0	0	9
1850 OHIO	0	133	0	0	133
1903 INDIANA	0	42	0	0	42
2400 TENNESSEE	26	0	0	0	26
2608 ALABAMA	3	0	0	0	3
TOTAL VOLUME	29	184	0	0	213

TABLE 57. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2801, IOWA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELLS)					
2704 MINNESOTA	125	3	0	0	128
2801 IOWA	74	855	0	12369	13298
2802 IOWA	0	30	0	0	30
3201 NORTH DAKOTA	0	1	0	0	1
3202 NORTH DAKOTA	0	1	0	0	1
3300 SOUTH DAKOTA	0	0	0	11	11
3301 SOUTH DAKOTA	701	39	0	0	740
3302 SOUTH DAKOTA	0	668	0	0	668
3401 NEBRASKA	71	0	0	0	71
3403 NEBRASKA	454	0	0	0	454
3405 NEBRASKA	177	67	0	27	271
TOTAL VOLUME	1602	1664	0	12407	15673

TABLE 58. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2801, IOWA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
100 MAINE	9	0	0	0	9
903 PENNSYLVANIA	5	0	0	0	5
2400 TENNESSEE	0	0	278	0	278
2608 ALABAMA	0	0	272	0	272
2704 MINNESOTA	11	0	0	0	11
2705 MINNESOTA	137	378	0	0	515
2801 IOWA	74	855	0	7773	8702
2802 IOWA	0	36	0	0	36
2900 MISSOURI	1186	1112	0	0	2298
3100 LOUISIANA	5	0	0	0	5
3403 NEBRASKA	0	160	0	0	160
3405 NEBRASKA	0	154	0	0	154
3700 TEXAS	431	0	0	0	431
3900 WYOMING	58	0	0	0	58
7301 EAST GULF	275	0	0	0	275
7302 LOUISIANA GULF	859	0	418	0	1277
TOTAL VOLUME	3050	2695	968	7773	14486

TABLE 59. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2802, IOWA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2102 WISCONSIN	0	132	0	0	132
2703 MINNESOTA	44	0	0	0	44
2705 MINNESOTA	0	2	0	0	2
2801 IOWA	0	36	0	0	36
2802 IOWA	0	176	0	7083	7259
2803 IOWA	0	4	0	0	4
3302 SOUTH DAKOTA	0	411	0	0	411
3403 NEBRASKA	0	123	0	0	123
TOTAL VOLUME	44	884	0	7083	8011

TABLE 60. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2802, IOWA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2000 MICHIGAN	0	3	0	0	3
2103 WISCONSIN	0	6	0	0	6
2705 MINNESOTA	10	14	0	0	24
2801 IOWA	0	30	0	0	30
2802 IOWA	0	176	0	768	944
2900 MISSOURI	68	1293	0	0	1361
3005 ARKANSAS	186	0	0	0	186
3017 ARKANSAS	0	15	0	0	15
3700 TEXAS	0	2	0	0	2
TOTAL VOLUME	264	1539	0	768	2571

TABLE 61. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2803, IOWA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2256 ILLINOIS	20	41	0	0	61
2260 ILLINOIS	0	8	0	0	8
2705 MINNESOTA	250	0	0	0	250
2803 IOWA	56	3037	0	6921	10014
3301 SOUTH DAKOTA	0	3	0	0	3
TOTAL VOLUME	326	3089	0	6921	10336

TABLE 62. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2803, IOWA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
2103 WISCONSIN	0	182	0	0	182
2261 ILLINOIS	0	3	0	0	3
2270 ILLINOIS	0	250	0	0	250
2705 MINNESOTA	0	15	0	0	15
2802 IOWA	0	4	0	0	4
2803 IOWA	56	3037	0	2443	5536
2900 MISSOURI	0	330	0	0	330
7102 CHICAGO AREA	37	0	0	0	37
TOTAL VOLUME	93	3821	0	2443	6357

TABLE 63. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3501, KANSAS

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
3405 NEBRASKA	0	8	0	0	8
TOTAL VOLUME	0	8	0	0	8

TABLE 64. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3502, KANSAS

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
3405 NEBRASKA	37	0	0	0	37
TOTAL VOLUME	37	0	0	0	37

TABLE 65. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2319, KENTUCKY

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1850 OHIO	0	409	0	0	499
1903 INDIANA	0	0	0	1905	1905
2000 MICHIGAN	217	653	0	0	870
2608 ALABAMA	9	0	0	0	9
2705 MINNESOTA	0	0	1843	0	1843
3301 SOUTH DAKOTA	64	0	0	0	64
TOTAL VOLUME	290	1152	1843	1905	5190

TABLE 66. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2319, KENTUCKY

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1400 NORTH CAROLINA	446	0	0	0	446
1825 OHIO	0	0	150	0	150
TOTAL VOLUME	446	0	150	0	596

TABLE 67. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2320, KENTUCKY

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1825 OHIO	0	5	0	0	5
TOTAL VOLUME	0	5	0	0	5

TABLE 68. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY
FIRMS IN AREA 3100, LOUISIANA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
1500 SOUTH CAROLINA	0	1	0	0	1
2500 MISSISSIPPI	138	341	0	0	479
2801 IOWA	5	0	0	0	5
2900 MISSOURI	180	0	0	0	180
3038 ARKANSAS	0	1460	0	0	1460
3100 LOUISIANA	0	711	0	0	711
3405 NEBRASKA	36	0	0	0	36
3700 TEXAS	0	18	0	0	18
TOTAL VOLUME	359	2531	0	0	2890

TABLE 69. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY
FIRMS IN AREA 3100, LOUISIANA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
3038 ARKANSAS	20	0	0	0	20
3100 LOUISIANA	0	711	0	0	711
TOTAL VOLUME	20	711	0	0	731

TABLE 70. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY
FIRMS IN AREA 100, MAINE

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
100 MAINE	106	0	0	0	106
2000 MICHIGAN	961	0	0	0	961
2102 WISCONSIN	5	0	0	0	5
2801 IOWA	9	0	0	0	9
TOTAL VOLUME	1081	0	0	0	1081

TABLE 71. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 100, MAINE

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
100 MAINE	106	0	0	0	106
300 VERMONT	194	0	0	0	194
TOTAL VOLUME	300	0	0	0	300

TABLE 72. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 1100, MARYLAND

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
903 PENNSYLVANIA	0	0	0	3	3
1100 MARYLAND	0	0	0	111	111
1200 VIRGINIA	0	0	0	20	20
1300 WEST VIRGINIA	0	0	0	6	6
2705 MINNESOTA	35	0	0	0	35
TOTAL VOLUME	35	0	0	140	175

TABLE 73. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 1100, MARYLAND

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
903 PENNSYLVANIA	0	2	0	0	2
TOTAL VOLUME	0	2	0	0	2

TABLE 74. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY
FIRMS IN AREA 400, MASSACHUSETTS

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
701 NEW YORK	0	13	0	0	13
TOTAL VOLUME	0	13	0	0	13

TABLE 75. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY
FIRMS IN AREA 2000, MICHIGAN

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
2000 MICHIGAN	10	1806	0	12090	13906
2802 IOWA	0	3	0	0	3
TOTAL VOLUME	10	1809	0	12090	13909

TABLE 76. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY
FIRMS IN AREA 2000, MICHIGAN

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
100 MAINE	961	0	0	0	961
300 VERMONT	1268	0	0	0	1268
703 NEW YORK	11	4	0	0	15
901 PENNSYLVANIA	0	56	0	0	56
903 PENNSYLVANIA	1600	344	0	0	1944
1850 OHIO	0	500	0	0	500
1901 INDIANA	0	447	0	0	447
2000 MICHIGAN	10	1806	0	0	1816
2319 KENTUCKY	217	653	0	0	870
2400 TENNESSEE	21	0	0	0	21
TOTAL VOLUME	4088	3810	0	0	7898

TABLE 77. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2701, MINNESOTA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELLS)					
2701 MINNESOTA	470	2251	0	20172	22893
2703 MINNESOTA	0	109	0	0	109
3201 NORTH DAKOTA	75	0	0	0	75
3202 NORTH DAKOTA	201	138	0	0	339
TOTAL VOLUME	746	2498	0	20172	23416

TABLE 78. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2701, MINNESOTA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELLS)					
2101 WISCONSIN	0	354	0	0	354
2701 MINNESOTA	470	2251	0	52	2773
2702 MINNESOTA	0	328	0	0	328
2705 MINNESOTA	2708	1476	0	0	4184
7101 DULUTH-SUPERIOR	2375	941	0	0	3316
TOTAL VOLUME	5553	5350	0	52	10955

TABLE 79. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2702, MINNESOTA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELLS)					
2701 MINNESOTA	0	328	0	0	328
2702 MINNESOTA	0	415	0	852	1267
2703 MINNESOTA	0	24	0	0	24
2705 MINNESOTA	20	168	0	0	188
3201 NORTH DAKOTA	0	41	0	0	41
TOTAL VOLUME	20	976	0	852	1848

TABLE 80. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2702, MINNESOTA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2101 WISCONSIN	0	392	0	0	392
2702 MINNESOTA	0	415	0	12	427
TOTAL VOLUME	0	807	0	12	819

TABLE 81. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2703, MINNESOTA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2703 MINNESOTA	0	1040	0	24715	25755
2704 MINNESOTA	0	0	0	100	100
2705 MINNESOTA	0	0	0	102	102
3301 SOUTH DAKOTA	420	0	0	176	596
TOTAL VOLUME	420	1040	0	25093	26553

TABLE 82. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2703, MINNESOTA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2701 MINNESOTA	0	109	0	0	109
2702 MINNESOTA	0	24	0	0	24
2703 MINNESOTA	0	1040	0	2942	3982
2704 MINNESOTA	0	0	0	84	84
2705 MINNESOTA	10544	2228	0	36	12808
2802 IOWA	44	0	0	0	44
7101 DULUTH-SUPERIOR	373	504	0	0	877
TOTAL VOLUME	10961	3905	0	3062	17928

TABLE 83. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2704, MINNESOTA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2703 MINNESOTA	0	0	0	44	44
2704 MINNESOTA	39	1532	0	23853	25424
2705 MINNESOTA	0	0	0	12	12
2801 IOWA	11	0	0	0	11
2802 IOWA	0	0	0	50	50
TOTAL VOLUME	50	1532	0	23959	25541

TABLE 84. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2704, MINNESOTA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2101 WISCONSIN	0	167	0	0	167
2704 MINNESOTA	39	1532	0	1703	3274
2705 MINNESOTA	10919	5530	0	0	16449
2801 IOWA	125	3	0	0	128
2802 IOWA	0	0	0	13	13
7101 DULUTH-SUPERIOR	203	55	0	0	258
TOTAL VOLUME	11286	7287	0	1716	20289

TABLE 85. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY
FIRMS IN AREA 2705, MINNESOTA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
2101 WISCONSIN	0	50	0	4	54
2102 WISCONSIN	0	12	0	0	12
2103 WISCONSIN	0	12	0	0	12
2701 MINNESOTA	2708	1476	0	0	4184
2703 MINNESOTA	10544	2228	0	304	13076
2704 MINNESOTA	10919	5530	0	0	16449
2705 MINNESOTA	1047	4829	0	8148	14024
2801 IOWA	137	378	0	0	515
2802 IOWA	10	14	0	0	24
2803 IOWA	0	15	0	0	15
3201 NORTH DAKOTA	513	0	0	0	513
3202 NORTH DAKOTA	1802	1624	0	0	3426
3203 NORTH DAKOTA	23	122	0	0	145
3301 SOUTH DAKOTA	5104	971	0	0	6075
3302 SOUTH DAKOTA	436	190	0	0	626
3800 MONTANA	338	348	0	0	686
7101 DULUTH-SUPERIOR	212	0	0	0	212
TOTAL VOLUME	33793	17799	0	8456	60048

TABLE 86. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2705, MINNESOTA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
600 CONNECTICUT	594	0	0	0	594
903 PENNSYLVANIA	3928	1165	0	0	5093
1100 MARYLAND	35	0	0	0	35
1700 FLORIDA	0	132	0	0	132
1850 OHIO	500	5	0	0	505
1901 INDIANA	14	610	0	0	624
1902 INDIANA	0	94	0	0	94
1903 INDIANA	0	31	0	0	31
2101 WISCONSIN	4043	2010	0	13	6066
2102 WISCONSIN	35	9	0	0	44
2103 WISCONSIN	35	1296	0	0	1331
2256 ILLINOIS	57	37	0	0	94
2300 KENTUCKY	0	0	1843	0	1843
2400 TENNESSEE	1099	0	1531	0	2630
2500 MISSISSIPPI	0	0	1201	0	1201
2608 ALABAMA	0	0	1404	0	1404
2702 MINNESOTA	20	168	0	0	188
2705 MINNESOTA	1047	4829	0	972	6848
2802 IOWA	0	2	0	0	2
2803 IOWA	250	0	0	0	250
2900 MISSOURI	0	6	642	0	648
4700 CALIFORNIA	27	19	0	0	46
7102 CHICAGO AREA	57	75	0	0	132
7302 LOUISIANA GULF	748	43	2668	0	3459
TOTAL VOLUME	12489	10531	9289	985	33294

TABLE 87. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2500, MISSISSIPPI

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1500 SOUTH CAROLINA	0	1	0	0	1
2260 ILLINOIS	0	0	162	0	162
2500 MISSISSIPPI	3100	159	0	108	3367
2607 ALABAMA	41	58	0	0	99
2608 ALABAMA	25	0	0	0	25
2705 MINNESOTA	0	0	1201	0	1201
2900 MISSOURI	473	0	0	0	473
3038 ARKANSAS	0	128	0	0	128
TOTAL VOLUME	3639	346	1363	108	5456

TABLE 88. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2500, MISSISSIPPI

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2500 MISSISSIPPI	3100	159	0	0	3259
2607 ALABAMA	45	0	0	0	45
3100 LOUISIANA	138	341	0	0	479
TOTAL VOLUME	3283	500	0	0	3783

TABLE 89. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2900, MISSOURI

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
2260 ILLINOIS	0	69	0	0	69
2261 ILLINOIS	0	88	0	0	88
2705 MINNESOTA	0	6	642	0	648
2801 IOWA	1186	1112	0	0	2298
2802 IOWA	68	1293	0	0	1361
2803 IOWA	0	330	0	0	330
2900 MISSOURI	981	0	0	0	981
3301 SOUTH DAKOTA	180	0	0	0	180
3405 NEBRASKA	1338	19	0	0	1357
TOTAL VOLUME	3753	2917	642	0	7312

TABLE 90. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2900, MISSOURI

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
1500 SOUTH CAROLINA	20	0	0	0	20
1609 GEORGIA	180	0	0	0	180
2258 ILLINOIS	0	29	0	0	29
2500 MISSISSIPPI	473	0	0	0	473
2900 MISSOURI	981	0	0	0	981
3100 LOUISIANA	180	0	0	0	180
TOTAL VOLUME	1834	29	0	0	1863

TABLE 91. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 3800, MONTANA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELLS)					
2705 MINNESOTA	338	348	0	0	686
3900 WYOMING	0	24	0	0	24
4300 UTAH	0	73	0	0	73
7101 DULUTH-SUPERIOR	230	124	0	0	354
TOTAL VOLUME	568	569	0	0	1137

TABLE 92. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3401, NEBRASKA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELLS)					
3302 SOUTH DAKOTA	0	5	0	48	53
3401 NEBRASKA	0	50	0	400	450
TOTAL VOLUME	0	55	0	448	503

TABLE 93. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 3401, NEBRASKA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELLS)					
2801 IOWA	71	0	0	0	71
3401 NEBRASKA	0	50	0	162	212
3405 NEBRASKA	0	0	0	6	6
4000 COLORADO	0	6	0	0	6
TOTAL VOLUME	71	56	0	168	295

TABLE 94. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3402, NEBRASKA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
3302 SOUTH DAKOTA	0	12	0	113	125
TOTAL VOLUME	0	12	0	113	125

TABLE 95. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 3402, NEBRASKA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
3402 NEBRASKA	0	0	0	118	118
TOTAL VOLUME	0	0	0	118	118

TABLE 96. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3403, NEBRASKA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2801 IOWA	0	160	0	107	267
3302 SOUTH DAKOTA	222	5	0	31	258
3403 NEBRASKA	35	692	0	8048	8775
3405 NEBRASKA	0	74	0	0	74
TOTAL VOLUME	257	931	0	8186	9374

TABLE 97. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 3403, NEBRASKA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2801 IOWA	454	0	0	0	454
2802 IOWA	0	123	0	0	123
2900 MISSOURI	0	0	0	4	4
3402 NEBRASKA	0	0	0	295	295
3403 NEBRASKA	35	692	0	1335	2062
3404 NEBRASKA	0	199	0	0	199
3405 NEBRASKA	749	698	0	1349	2796
3502 KANSAS	0	0	0	896	896
3600 OKLAHOMA	0	0	0	313	313
3602 OKLAHOMA	0	103	0	0	103
3603 OKLAHOMA	0	0	0	1	1
3604 OKLAHOMA	0	103	0	1	104
3700 TEXAS	736	79	0	1	816
TOTAL VOLUME	1974	1997	0	4195	8166

TABLE 98. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3404, NEBRASKA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
3403 NEBRASKA	0	199	0	51	250
3404 NEBRASKA	0	0	0	709	709
3502 KANSAS	0	0	0	24	24
TOTAL VOLUME	0	199	0	784	983

TABLE 99. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 3404, NEBRASKA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
3404 NEBRASKA	0	0	0	1191	1191
3405 NEBRASKA	34	149	0	0	183
4000 COLORADO	41	0	0	0	41
TOTAL VOLUME	75	149	0	1191	1415

TABLE 100. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3405, NEBRASKA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2801 IOWA	0	154	0	11	165
2900 MISSOURI	0	0	0	8	8
3403 NEBRASKA	749	698	0	12	1459
3404 NEBRASKA	34	149	0	8	191
3405 NEBRASKA	4557	4141	0	11022	19720
TOTAL VOLUME	5340	5142	0	11061	21543

TABLE 101. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 3405, NEBRASKA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2801 IOWA	177	67	0	0	244
2900 MISSOURI	1338	19	0	0	1357
3038 ARKANSAS	126	0	0	0	126
3100 LOUISIANA	36	0	0	0	36
3403 NEBRASKA	0	74	0	0	74
3404 NEBRASKA	0	0	0	12	12
3405 NEBRASKA	4557	4141	0	2296	10994
3501 KANSAS	0	8	0	0	8
3502 KANSAS	37	0	0	0	37
3602 OKLAHOMA	492	1853	0	126	2471
3604 OKLAHOMA	168	845	0	126	1139
3700 TEXAS	630	0	0	126	756
4000 COLORADO	4	0	0	0	4
TOTAL VOLUME	7565	7007	0	2686	17258

TABLE 102. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 800, NEW JERSEY

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
903 PENNSYLVANIA	0	45	0	0	45
TOTAL VOLUME	0	45	0	0	45

TABLE 103. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY
FIRMS IN AREA 701, NEW YORK

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
701 NEW YORK	30	106	0	3932	4068
901 PENNSYLVANIA	0	1	0	0	1
7101 DULUTH-SUPERIOR	0	0	110	0	110
TOTAL VOLUME	30	107	110	3932	4179

TABLE 104. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY
FIRMS IN AREA 701, NEW YORK

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
300 VERMONT	10	0	0	0	10
400 MASSACHUSETTS	0	13	0	0	13
701 NEW YORK	30	106	0	35	171
703 NEW YORK	0	0	0	19	19
903 PENNSYLVANIA	34	57	0	0	91
TOTAL VOLUME	74	176	0	54	304

TABLE 105. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY
FIRMS IN AREA 702, NEW YORK

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
702 NEW YORK	0	0	0	54	54
TOTAL VOLUME	0	0	0	54	54

TABLE 106. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 703, NEW YORK

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
703 NEW YORK	0	0	0	227	227
903 PENNSYLVANIA	0	5	0	0	5
2000 MICHIGAN	11	4	0	0	15
TOTAL VOLUME	11	9	0	227	247

TABLE 107. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 1400, NORTH CAROLINA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1200 VIRGINIA	70	0	0	0	70
1400 NORTH CAROLINA	3	1162	0	4711	5876
1500 SOUTH CAROLINA	81	456	0	0	537
1603 GEORGIA	23	0	0	0	23
1825 OHIO	74	0	0	0	74
1850 OHIO	0	77	0	0	77
2319 KENTUCKY	446	0	0	0	446
2400 TENNESSEE	317	0	0	0	317
2608 ALABAMA	97	0	0	0	97
TOTAL VOLUME	1111	1695	0	4711	7517

TABLE 108. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 1400, NORTH CAROLINA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1400 NORTH CAROLINA	3	1162	0	0	1165
1700 FLORIDA	384	0	0	0	384
TOTAL VOLUME	387	1162	0	0	1549

TABLE 109. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3201, NORTH DAKOTA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
3201 NORTH DAKOTA	0	0	0	4568	4568
TOTAL VOLUME	0	0	0	4568	4568

TABLE 110. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 3201, NORTH DAKOTA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2101 WISCONSIN	15	126	0	0	141
2701 MINNESOTA	75	0	0	0	75
2702 MINNESOTA	0	41	0	0	41
2705 MINNESOTA	513	0	0	0	513
2801 IOWA	0	1	0	0	1
3604 OKLAHOMA	44	348	0	0	392
7101 DULUTH-SUPERIOR	200	61	0	0	261
7402 PUGET SOUND	29	0	0	0	29
TOTAL VOLUME	876	577	0	0	1453

TABLE 111. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3202, NORTH DAKOTA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
3201 NORTH DAKOTA	0	0	0	122	122
3202 NORTH DAKOTA	0	0	0	7157	7157
TOTAL VOLUME	0	0	0	7279	7279

TABLE 112. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 3202, NORTH DAKOTA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
300 VERMONT	4	0	0	0	4
2101 WISCONSIN	56	145	0	0	201
2701 MINNESOTA	201	138	0	0	339
2705 MINNESOTA	1802	1624	0	0	3426
2801 IOWA	0	1	0	0	1
3602 OKLAHOMA	107	382	0	0	489
3604 OKLAHOMA	16	0	0	0	16
4703 CALIFORNIA	0	276	0	0	276
4704 CALIFORNIA	0	528	0	0	528
7101 DULUTH-SUPERIOR	3109	1357	0	0	4466
7402 PUGET SOUND	2	47	0	0	49
TOTAL VOLUME	5297	4498	0	0	9795

TABLE 113. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3203, NORTH DAKOTA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
3203 NORTH DAKOTA	0	0	0	463	463
TOTAL VOLUME	0	0	0	463	463

TABLE 114. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 3203, NORTH DAKOTA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2101 WISCONSIN	0	39	0	0	39
2705 MINNESOTA	23	122	0	0	145
3602 OKLAHOMA	0	116	0	0	116
3900 WYOMING	0	2	0	0	2
4400 ARIZONA	0	92	0	0	92
7101 DULUTH-SUPERIOR	13	16	0	0	29
7402 PUGET SOUND	0	134	0	0	134
TOTAL VOLUME	36	521	0	0	557

TABLE 115. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 1825, OHIO

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1825 OHIO	17	574	0	1989	2580
1850 OHIO	360	875	0	178	1413
1901 INDIANA	0	10	0	0	10
1902 INDIANA	0	0	0	19	19
1903 INDIANA	0	9	0	0	9
2103 WISCONSIN	300	0	0	0	300
2319 KENTUCKY	0	0	150	0	150
TOTAL VOLUME	677	1468	150	2186	4481

TABLE 116. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 1825, OHIO

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1200 VIRGINIA	8	46	0	0	54
1400 NORTH CAROLINA	74	0	0	0	74
1500 SOUTH CAROLINA	147	0	0	0	147
1825 OHIO	17	574	0	0	591
1850 OHIO	0	36	0	0	36
2320 KENTUCKY	0	5	0	0	5
2400 TENNESSEE	0	100	0	0	100
TOTAL VOLUME	246	761	0	0	1007

TABLE 117. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 1850, OHIO

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1825 OHIO	0	36	0	18	54
1850 OHIO	51	4047	0	6364	10462
1901 INDIANA	0	13	0	15	28
1903 INDIANA	0	133	0	0	133
2000 MICHIGAN	0	500	0	280	780
2256 ILLINOIS	67	61	0	0	128
2705 MINNESOTA	500	5	0	0	505
TOTAL VOLUME	618	4795	0	6677	12090

TABLE 118. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 1850, OHIO

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
300 VERMONT	27	0	0	0	27
901 PENNSYLVANIA	768	73	0	0	841
903 PENNSYLVANIA	2971	1826	0	0	4797
1200 VIRGINIA	1735	153	0	0	1888
1400 NORTH CAROLINA	0	77	0	0	77
1500 SOUTH CAROLINA	77	81	0	0	158
1603 GEORGIA	82	0	0	0	82
1700 FLORIDA	81	0	0	0	81
1825 OHIO	360	875	0	0	1235
1850 OHIO	51	4047	0	0	4098
1901 INDIANA	0	188	0	0	188
2319 KENTUCKY	0	499	0	0	499
TOTAL VOLUME	6152	7819	0	0	13971

TABLE 119. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3601, OKLAHOMA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
3601 OKLAHOMA	0	0	0	43	43
TOTAL VOLUME	0	0	0	43	43

TABLE 120. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY
FIRMS IN AREA 3602, OKLAHOMA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
3202 NORTH DAKOTA	107	382	0	0	489
3203 NORTH DAKOTA	0	116	0	0	116
3301 SOUTH DAKOTA	204	422	0	0	626
3302 SOUTH DAKOTA	0	394	0	0	394
3403 NEBRASKA	0	103	0	0	103
3405 NEBRASKA	482	1853	0	0	2345
3602 OKLAHOMA	0	35	0	1746	1781
TOTAL VOLUME	803	3305	0	1746	5854

TABLE 121. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY
FIRMS IN AREA 3602, OKLAHOMA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
3602 OKLAHOMA	0	35	0	0	35
TOTAL VOLUME	0	35	0	0	35

TABLE 122. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY
FIRMS IN AREA 3603, OKLAHOMA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
3603 OKLAHOMA	0	0	0	1177	1177
TOTAL VOLUME	0	0	0	1177	1177

TABLE 123. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3604, OKLAHOMA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
3201 NORTH DAKOTA	44	348	0	0	392
3202 NORTH DAKOTA	16	0	0	0	16
3302 SOUTH DAKOTA	72	432	0	0	504
3403 NEBRASKA	0	103	0	0	103
3405 NEBRASKA	168	845	0	0	1013
3604 OKLAHOMA	0	0	0	2415	2415
TOTAL VOLUME	300	1728	0	2415	4443

TABLE 124. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 4601, OREGON

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
4501 WASHINGTON	0	80	0	0	80
4601 OREGON	0	0	0	2110	2110
4603 OREGON	0	34	0	0	34
TOTAL VOLUME	0	114	0	2110	2224

TABLE 125. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 4601, OREGON

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
4501 WASHINGTON	82	474	0	0	556
4603 OREGON	0	5	0	0	5
4701 CALIFORNIA	15	519	0	0	534
4703 CALIFORNIA	0	1573	0	0	1573
4704 CALIFORNIA	961	468	0	0	1429
7401 COLUMBIA RIVER	137	2730	0	0	2867
TOTAL VOLUME	1195	5769	0	0	6964

TABLE 126. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 4603, OREGON

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
4601 OREGON	0	5	0	0	5
4603 OREGON	0	0	0	1234	1234
4702 CALIFORNIA	0	0	0	374	374
TOTAL VOLUME	0	5	0	1608	1613

TABLE 127. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 4603, OREGON

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
4601 OREGON	0	34	0	0	34
4701 CALIFORNIA	0	514	0	0	514
4703 CALIFORNIA	0	922	0	0	922
TOTAL VOLUME	0	1470	0	0	1470

TABLE 128. 1977 DAT RECEIPTS FROM VARIOUS ORIGINS BY
FIRMS IN AREA 901, PENNSYLVANIA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
901 PENNSYLVANIA	0	144	0	1473	1617
903 PENNSYLVANIA	0	1	0	0	1
1850 OHIO	768	73	0	31	872
2000 MICHIGAN	0	56	0	0	56
TOTAL VOLUME	768	274	0	1504	2546

TABLE 129. 1977 DAT SHIPMENTS TO VARIOUS DESTINATIONS BY
FIRMS IN AREA 901, PENNSYLVANIA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
701 NEW YORK	0	1	0	0	1
901 PENNSYLVANIA	0	145	0	0	145
903 PENNSYLVANIA	0	72	0	0	72
TOTAL VOLUME	0	218	0	0	218

TABLE 130. 1977 DAT RECEIPTS FROM VARIOUS ORIGINS BY
FIRMS IN AREA 902, PENNSYLVANIA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
701 NEW YORK	34	57	0	298	389
902 PENNSYLVANIA	0	74	0	1404	1478
903 PENNSYLVANIA	0	322	0	0	322
TOTAL VOLUME	34	453	0	1702	2189

TABLE 131. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 902, PENNSYLVANIA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
902 PENNSYLVANIA	0	74	0	0	74
903 PENNSYLVANIA	0	120	0	0	120
TOTAL VOLUME	0	194	0	0	194

TABLE 132. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 903, PENNSYLVANIA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
901 PENNSYLVANIA	0	72	0	0	72
902 PENNSYLVANIA	0	120	0	0	120
903 PENNSYLVANIA	0	120	0	2146	2266
1100 MARYLAND	0	2	0	0	2
1850 OHIO	2971	1826	0	0	4797
1901 INDIANA	0	14	0	0	14
2000 MICHIGAN	1600	344	0	0	1944
2705 MINNESOTA	3928	1165	0	0	5093
2801 IOWA	5	0	0	0	5
7101 DULUTH-SUPERIOR	1192	0	0	0	1192
7102 CHICAGO AREA	602	0	0	0	602
TOTAL VOLUME	10298	3663	0	2146	16107

TABLE 133. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 903, PENNSYLVANIA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
703 NEW YORK	0	5	0	0	5
800 NEW JERSEY	0	45	0	0	45
902 PENNSYLVANIA	0	322	0	0	322
903 PENNSYLVANIA	0	120	0	0	120
TOTAL VOLUME	0	492	0	0	492

TABLE 134. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 1500, SOUTH CAROLINA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1500 SOUTH CAROLINA	492	10	0	1697	2199
1609 GEORGIA	0	0	0	5	5
1825 OHIO	147	0	0	0	147
1850 OHIO	77	81	0	0	158
2608 ALABAMA	29	0	0	0	29
2900 MISSOURI	20	0	0	0	20
7102 CHICAGO AREA	20	0	0	0	20
TOTAL VOLUME	785	91	0	1702	2578

TABLE 135. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 1500, SOUTH CAROLINA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1400 NORTH CAROLINA	81	456	0	0	537
1500 SOUTH CAROLINA	492	10	0	223	725
1603 GEORGIA	0	309	0	0	309
1609 GEORGIA	0	0	0	5	5
2500 MISSISSIPPI	0	1	0	0	1
2607 ALABAMA	0	3	0	0	3
3100 LOUISIANA	0	1	0	0	1
3700 TEXAS	0	1	0	0	1
TOTAL VOLUME	573	781	0	228	1582

TABLE 136. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3301, SOUTH DAKOTA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
3301 SOUTH DAKOTA	0	0	0	10334	10334
3302 SOUTH DAKOTA	0	40	0	0	40
TOTAL VOLUME	0	40	0	10334	10374

TABLE 137. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 3301, SOUTH DAKOTA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
2319 KENTUCKY	64	0	0	0	64
2703 MINNESOTA	420	0	0	0	420
2705 MINNESOTA	5104	971	0	0	6075
2801 IOWA	701	39	0	0	740
2803 IOWA	0	3	0	0	3
2900 MISSOURI	180	0	0	0	180
3602 OKLAHOMA	204	422	0	0	626
3700 TEXAS	0	168	0	0	168
3900 WYOMING	0	2	0	0	2
4300 UTAH	0	90	0	0	90
4400 ARIZONA	0	48	0	0	48
4701 CALIFORNIA	0	51	0	0	51
7101 DULUTH-SUPERIOR	845	420	0	0	1265
TOTAL VOLUME	7518	2214	0	0	9732

TABLE 138. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3302, SOUTH DAKOTA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
3302 SOUTH DAKOTA	0	0	0	2935	2935
TOTAL VOLUME	0	0	0	2935	2935

TABLE 139. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 3302, SOUTH DAKOTA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2256 ILLINOIS	0	6	0	0	6
2705 MINNESOTA	436	190	0	0	626
2801 IOWA	0	668	0	0	668
2802 IOWA	0	411	0	0	411
3301 SOUTH DAKOTA	0	40	0	0	40
3401 NEBRASKA	0	5	0	0	5
3402 NEBRASKA	0	12	0	0	12
3403 NEBRASKA	222	5	0	0	227
3602 OKLAHOMA	0	394	0	0	394
3604 OKLAHOMA	72	432	0	0	504
3900 WYOMING	0	14	0	0	14
4701 CALIFORNIA	0	79	0	0	79
TOTAL VOLUME	730	2256	0	0	2606

TABLE 140. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2400, TENNESSEE

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1609 GEORGIA	0	0	0	16	16
1825 OHIO	0	100	0	0	100
1903 INDIANA	26	0	0	0	26
2000 MICHIGAN	21	0	0	0	21
2400 TENNESSEE	6	180	0	110	296
2608 ALABAMA	25	40	0	0	65
2705 MINNESOTA	599	0	1531	0	2130
2801 IOWA	0	0	278	0	278
3038 ARKANSAS	50	95	0	0	145
7102 CHICAGO AREA	116	0	0	0	116
TOTAL VOLUME	843	415	1809	126	3193

TABLE 141. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY
FIRMS IN AREA 2400, TENNESSEE

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
1400 NORTH CAROLINA	317	0	0	0	317
1609 GEORGIA	241	102	0	0	343
2400 TENNESSEE	6	180	0	0	186
2608 ALABAMA	0	6	0	0	6
3038 ARKANSAS	15	0	0	0	15
TOTAL VOLUME	579	288	0	0	867

TABLE 142. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY
FIRMS IN AREA 3700, TEXAS

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
1500 SOUTH CAROLINA	0	1	0	0	1
2801 IOWA	431	0	0	0	431
2802 IOWA	0	2	0	0	2
3038 ARKANSAS	0	908	0	0	908
3301 SOUTH DAKOTA	0	168	0	0	168
3403 NEBRASKA	736	79	0	0	815
3405 NEBRASKA	630	0	0	0	630
TOTAL VOLUME	1797	1158	0	0	2955

TABLE 143. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY
FIRMS IN AREA 3700, TEXAS

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
3100 LOUISIANA	0	18	0	0	18
TOTAL VOLUME	0	18	0	0	18

TABLE 144. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 4300, UTAH

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELLS)					
3301 SOUTH DAKOTA	0	90	0	0	90
3800 MONTANA	0	73	0	0	73
4202 IDAHO	240	0	0	0	240
4300 UTAH	0	0	0	216	216
TOTAL VOLUME	240	163	0	216	619

TABLE 145. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 4300, UTAH

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELLS)					
4501 WASHINGTON	75	0	0	0	75
4704 CALIFORNIA	0	276	0	0	276
TOTAL VOLUME	75	276	0	0	351

TABLE 146. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY
FIRMS IN AREA 300, VERMONT

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
100 MAINE	194	0	0	0	194
300 VERMONT	0	0	0	41	41
701 NEW YORK	10	0	0	0	10
703 NEW YORK	0	0	0	12	12
1850 OHIO	27	0	0	0	27
2000 MICHIGAN	1268	0	0	0	1268
2102 WISCONSIN	9	0	0	0	9
3202 NORTH DAKOTA	4	0	0	0	4
7101 DULUTH-SUPERIOR	10	0	0	0	10
8000 CANADA	150	363	0	0	513
TOTAL VOLUME	1672	363	0	53	2088

TABLE 147. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY
FIRMS IN AREA 300, VERMONT

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
300 VERMONT	0	0	0	9	9
TOTAL VOLUME	0	0	0	9	9

TABLE 148. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY
FIRMS IN AREA 1200, VIRGINIA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1825 OHIO	8	46	0	0	54
1850 OHIO	1735	153	0	0	1888
TOTAL VOLUME	1743	199	0	0	1942

TABLE 149. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 1200, VIRGINIA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1400 NORTH CAROLINA	70	0	0	0	70
TOTAL VOLUME	70	0	0	0	70

TABLE 150. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 4501, WASHINGTON

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
4300 UTAH	75	0	0	0	75
4601 OREGON	82	474	0	0	556
TOTAL VOLUME	157	474	0	0	631

TABLE 151. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 4501, WASHINGTON

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
4601 OREGON	0	80	0	0	80
4701 CALIFORNIA	0	72	0	0	72
TOTAL VOLUME	0	152	0	0	152

TABLE 152. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2101, WISCONSIN

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2101 WISCONSIN	0	234	0	1672	1906
2103 WISCONSIN	0	456	0	228	684
2701 MINNESOTA	0	354	0	0	354
2702 MINNESOTA	0	392	0	0	392
2704 MINNESOTA	0	167	0	0	167
2705 MINNESOTA	4043	2010	0	0	6053
3201 NORTH DAKOTA	15	126	0	0	141
3202 NORTH DAKOTA	56	145	0	0	201
3203 NORTH DAKOTA	0	39	0	0	39
7101 DULUTH-SUPERIOR	11	0	0	0	11
TOTAL VOLUME	4125	3923	0	1900	9948

TABLE 153. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2101, WISCONSIN

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
1901 INDIANA	0	2	0	0	2
1902 INDIANA	0	12	0	0	12
1903 INDIANA	0	7	0	0	7
2101 WISCONSIN	0	234	0	56	290
2103 WISCONSIN	0	4	0	0	4
2705 MINNESOTA	0	50	0	0	50
7101 DULUTH-SUPERIOR	91	44	0	0	135
TOTAL VOLUME	91	353	0	56	500

TABLE 154. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2102, WISCONSIN

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2101 WISCONSIN	0	0	0	22	22
2102 WISCONSIN	0	42	0	3498	3540
2103 WISCONSIN	0	278	0	134	412
2705 MINNESOTA	35	9	0	0	44
TOTAL VOLUME	35	329	0	3654	4018

TABLE 155. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2102, WISCONSIN

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
100 MAINE	5	0	0	0	5
300 VERMONT	9	0	0	0	9
2102 WISCONSIN	0	42	0	16	58
2103 WISCONSIN	0	84	0	0	84
2705 MINNESOTA	0	12	0	0	12
2802 IOWA	0	132	0	0	132
7102 CHICAGO AREA	0	324	0	0	324
TOTAL VOLUME	14	594	0	16	624

TABLE 156. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 2103, WISCONSIN

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
2101 WISCONSIN	0	4	0	8	12
2102 WISCONSIN	0	84	0	40	124
2103 WISCONSIN	0	12	0	4197	4209
2256 ILLINOIS	0	0	0	91	91
2705 MINNESOTA	35	1296	0	16	1347
2802 IOWA	0	6	0	0	6
2803 IOWA	0	182	0	12	194
7101 DULUTH-SUPERIOR	53	0	0	0	53
7102 CHICAGO AREA	0	140	0	0	140
TOTAL VOLUME	88	1724	0	4364	6176

TABLE 157. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 2103, WISCONSIN

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
1825 OHIO	300	0	0	0	300
1901 INDIANA	0	5	0	0	5
2101 WISCONSIN	0	456	0	0	456
2102 WISCONSIN	0	278	0	0	278
2103 WISCONSIN	0	12	0	131	143
2256 ILLINOIS	0	49	0	12	61
2705 MINNESOTA	0	12	0	0	12
7102 CHICAGO AREA	88	65	0	0	153
7302 LOUISIANA GULF	0	0	420	0	420
TOTAL VOLUME	388	877	420	143	1828

TABLE 158. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 3900, WYOMING

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2801 IOWA	58	0	0	0	58
3203 NORTH DAKOTA	0	2	0	0	2
3301 SOUTH DAKOTA	0	2	0	0	2
3302 SOUTH DAKOTA	0	14	0	0	14
3800 MONTANA	0	24	0	0	24
3900 WYOMING	0	0	0	178	178
TOTAL VOLUME	58	42	0	178	278

TABLE 159. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 3900, WYOMING

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
3900 WYOMING	0	0	0	5	5
4300 UTAH	0	0	0	12	12
TOTAL VOLUME	0	0	0	17	17

TABLE 160. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 7101, DULUTH-SUPERIOR

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
2101 WISCONSIN	91	44	0	0	135
2701 MINNESOTA	2375	941	0	0	3316
2703 MINNESOTA	373	504	0	0	877
2704 MINNESOTA	203	55	0	0	258
3201 NORTH DAKOTA	200	61	0	0	261
3202 NORTH DAKOTA	3109	1357	0	0	4466
3203 NORTH DAKOTA	13	16	0	0	29
3301 SOUTH DAKOTA	845	420	0	0	1265
3800 MONTANA	230	124	0	0	354
TOTAL VOLUME	7439	3522	0	0	10961

TABLE 161. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 7101, DULUTH-SUPERIOR

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
300 VERMONT	10	0	0	0	10
701 NEW YORK	0	0	110	0	110
903 PENNSYLVANIA	1192	0	0	0	1192
2101 WISCONSIN	11	0	0	0	11
2103 WISCONSIN	53	0	0	0	53
2705 MINNESOTA	212	0	0	0	212
7102 CHICAGO AREA	107	0	0	0	107
9000 EXPORT	0	0	8604	0	8604
TOTAL VOLUME	1585	0	8714	0	10299

TABLE 162. 1977 DAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 7102, CHICAGO AREA

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
2100 WISCONSIN	0	0	0	144	144
2102 WISCONSIN	0	324	0	0	324
2103 WISCONSIN	88	65	0	0	153
2256 ILLINOIS	3	7	82	0	92
2705 MINNESOTA	57	75	0	0	132
2803 IOWA	37	0	0	0	37
7101 DULUTH-SUPERIOR	107	0	0	0	107
7102 CHICAGO AREA	0	14	0	0	14
TOTAL VOLUME	292	485	82	144	1003

TABLE 163. 1977 DAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 7102, CHICAGO AREA

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHEL)					
903 PENNSYLVANIA	602	0	0	0	602
1500 SOUTH CAROLINA	20	0	0	0	20
1901 INDIANA	0	28	0	0	28
2103 WISCONSIN	0	140	0	0	140
2400 TENNESSEE	116	0	0	0	116
7102 CHICAGO AREA	0	14	0	0	14
9000 EXPORT	0	0	99	0	99
TOTAL VOLUME	738	182	99	0	1019

TABLE 164. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 7301, EAST GULF

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
2801 IOWA	275	0	0	0	275
TOTAL VOLUME	275	0	0	0	275

TABLE 165. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 7302, LOUISIANA GULF

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
2103 WISCONSIN	0	0	420	0	420
2705 MINNESOTA	748	43	2668	0	3459
2801 IOWA	859	0	418	0	1277
TOTAL VOLUME	1607	43	3506	0	5156

TABLE 166. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 7302, LOUISIANA GULF

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
1700 FLORIDA	0	0	1229	0	1229
9000 EXPORT	0	0	476	0	476
TOTAL VOLUME	0	0	1705	0	1705

TABLE 167. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 7401, COLUMBIA RIVER

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
4601 OREGON	137	2730	0	0	2867
TOTAL VOLUME	137	2730	0	0	2867

TABLE 168. 1977 OAT RECEIPTS FROM VARIOUS ORIGINS BY FIRMS IN AREA 7402, PUGET SOUND

ORIGINATING STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
3201 NORTH DAKOTA	29	0	0	0	29
3202 NORTH DAKOTA	2	47	0	0	49
3203 NORTH DAKOTA	0	134	0	0	134
TOTAL VOLUME	31	181	0	0	212

TABLE 169. 1977 OAT SHIPMENTS TO VARIOUS DESTINATIONS BY FIRMS IN AREA 7402, PUGET SOUND

DESTINATION STATE OR PORT AREA	MODE OF TRANSPORTATION				TOTAL
	RAIL	TRUCK	BARGE	FARM TRUCK	
(THOUSANDS OF BUSHELS)					
9000 EXPORT	0	0	192	0	192
TOTAL VOLUME	0	0	192	0	192





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