

**NORTH DAKOTA GRAIN AND OILSEED
TRANSPORTATION STATISTICS
1977-78**

By

Gene C. Griffin

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**NORTH DAKOTA GRAIN AND OILSEED
TRANSPORTATION STATISTICS
1977-78**

BY

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in cooperation with

**North Dakota State Wheat Commission
Bismarck, North Dakota
and
North Dakota Public Service Commission
Bismarck, North Dakota**

NOVEMBER 1978

PREFACE

This report represents a continuation of analysis concerned with the patterns and methods of distributing grains and oilseeds from North Dakota. This series began with the analysis of 1956-57 data and was published in Agricultural Economics Report 14, Department of Agricultural Economics, North Dakota State University. Subsequent years' data were analyzed in Agricultural Economics Reports 15, 17, 44, and 56, and Agricultural Experiment Station Bulletin 462. The compilation and analysis of the data for the year 1967-68 in this series were assumed by the Upper Great Plains Transportation Institute. Also, the data representing the 1967-68 period were the first results of the requirements of the North Dakota Public Service Commission that all North Dakota elevators report monthly movements of grains and oilseeds by truck and rail. Prior to 1967-68, the data had been estimated from questionnaires completed by a small portion or sample of country elevators.

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NORTH DAKOTA GRAIN AND OILSEED TRANSPORTATION STATISTICS
1977-78

Objective of Report

This report represents a continuation of analyses concerned with the patterns and methods of distributing grain from North Dakota. The collection and compilation of this type of data began in 1956-57. The objective of this report, like prior reports, is to provide the necessary data base for identifying trends in the distribution of grains and oilseeds from North Dakota.

Scope of Report

The data were tabulated according to the major characteristics which typically describe commodity flows. The major characteristics considered were: destination of shipment, mode of shipment, origin of shipment, time of shipment, and commodity shipped. These characteristics are defined as follows:

Destination of shipment: Minneapolis-St. Paul, Duluth-Superior, West (includes western states and North Pacific ports), and Miscellaneous Markets.

Mode of shipment: Rail or truck. Rail includes Commodity Credit Corporation shipments.

Origin of shipment: The nine crop reporting districts in North Dakota (Figure 1).

Time of shipment: By month, from July, 1977 to June, 1978.

Commodity shipped: Hard red spring wheat, durum, barley, sunflowers, oats, rye, and flax.

Source of Data

The data used to analyze the North Dakota grain distribution pattern for the period July, 1977 through June, 1978, were obtained from all country elevators in North Dakota. The source of the data is the North Dakota Public Service Commission's "Grain Movement Reports." Every country elevator in North Dakota is required under state statute to assemble and submit to the Public Service Commission such information desired by the Commission on a monthly basis.

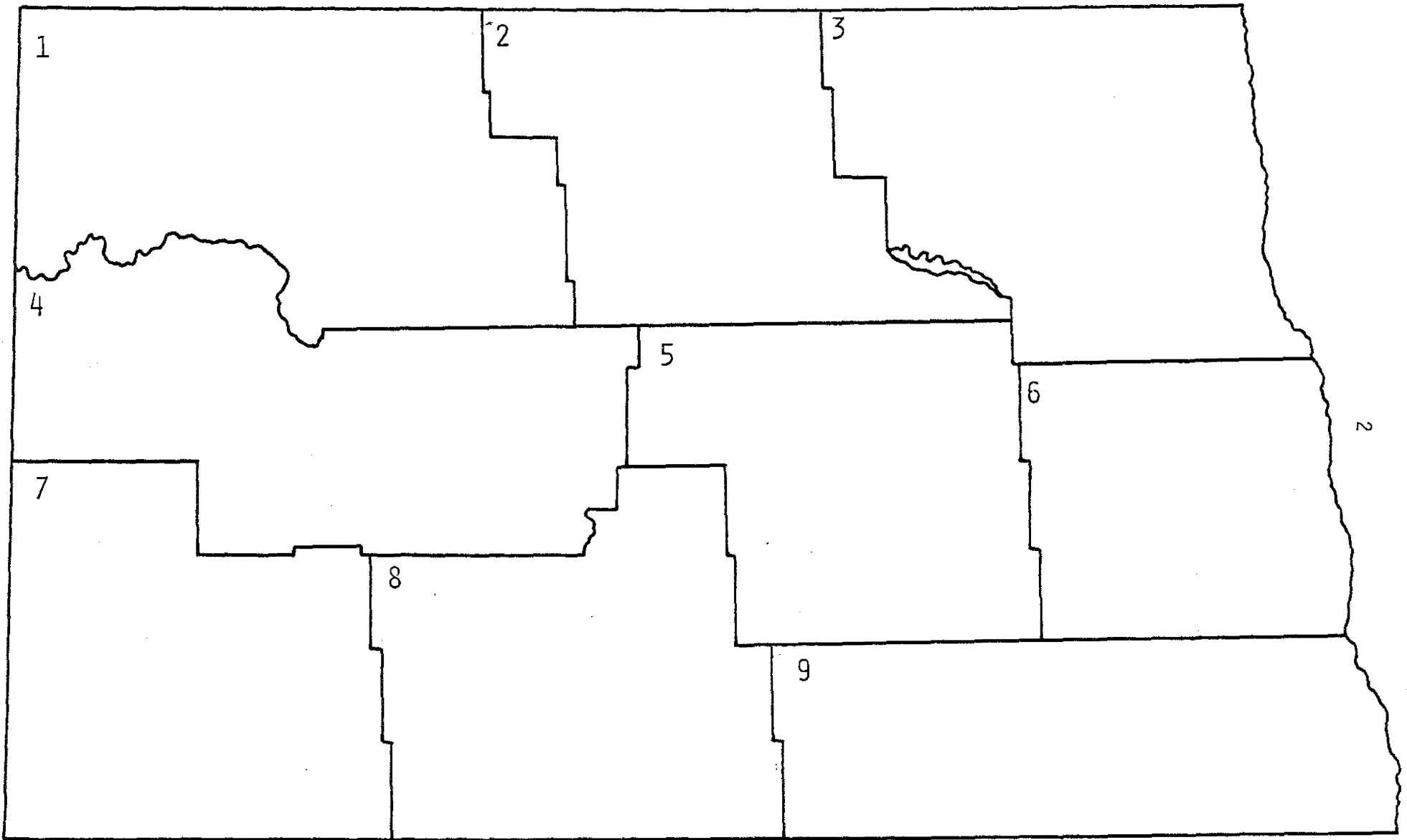


Figure 1. North Dakota Crop Reporting Districts

Organization of the Remainder of the Report

While the same general commodity flow characteristics are considered in this report as in previous reports of this nature, there is a difference in the organization and presentation of the material. The commodity flow characteristic "commodity shipped" is used to delineate major sections of the report. That is, each type of grain, hard red spring wheat, durum, barley, sunflowers, oats, rye, and flax, has its own major section. The sections are presented in the order just indicated.

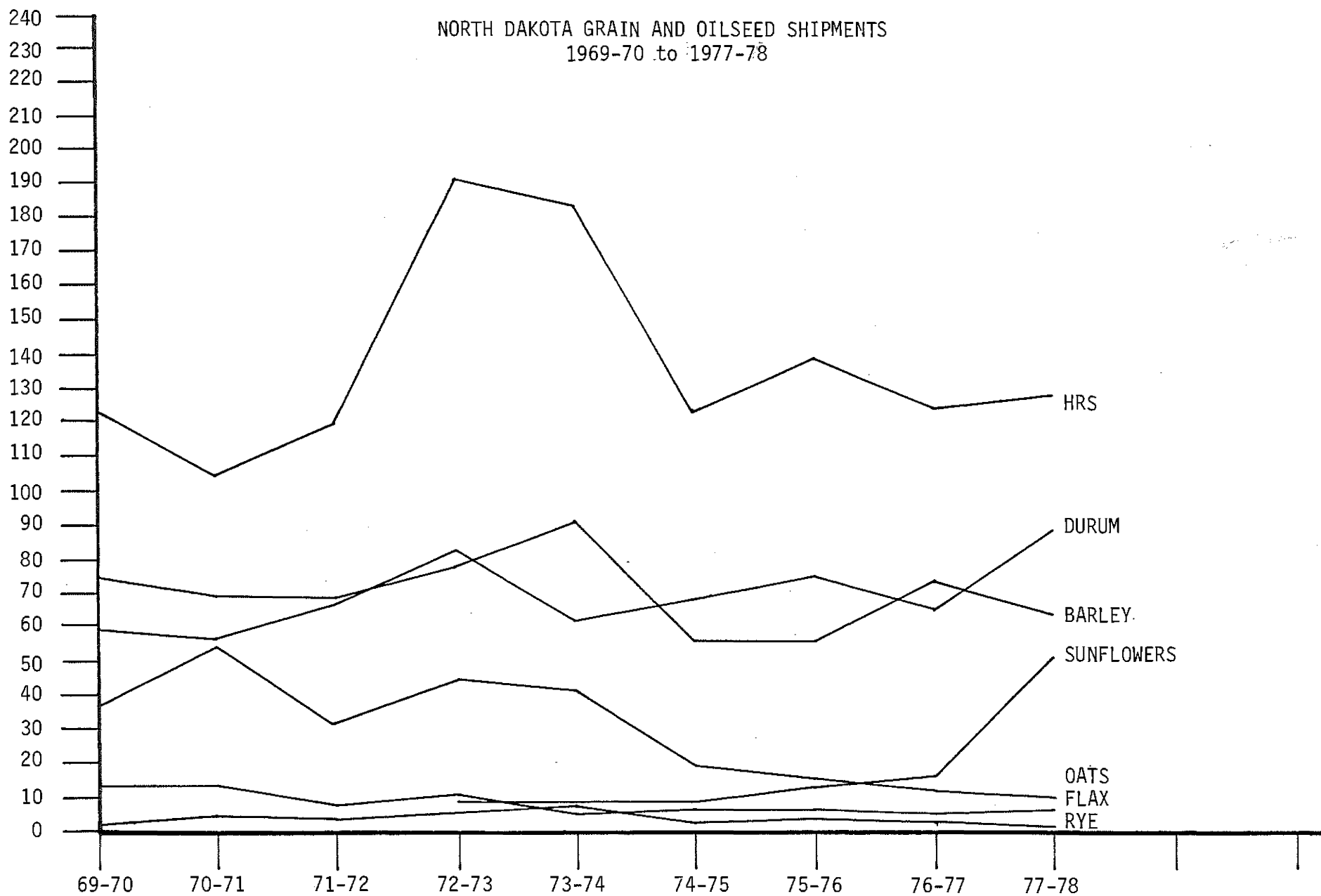
In addition, the number, type and volume of data has been condensed considerably relative to earlier reports with greater reliance placed on the graphical presentation of basic data. It is the intention of this report to get people to understand its content through "reading it for themselves."

NORTH DAKOTA GRAIN AND OILSEED SHIPMENTS^a
1969-70 to 1977-78

| | 1969-70 | 1970-71 | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | (thousand bu.) | | | | | | | | |
| HARD RED SPRING | 120,330 (39%) | 105,800 (35%) | 119,944 (40%) | 191,696 (44%) | 183,567 (45%) | 122,934 (42%) | 139,361 (44%) | 123,976 (41%) | 127,953 (36%) |
| DURUM | 58,540 (19%) | 57,317 (19%) | 66,184 (22%) | 83,351 (19%) | 60,758 (15%) | 68,781 (24%) | 74,817 (23%) | 65,024 (21%) | 88,366 (25%) |
| BARLEY | 74,528 (24%) | 68,996 (23%) | 68,436 (23%) | 78,384 (18%) | 91,739 (22%) | 56,671 (19%) | 56,355 (18%) | 73,314 (24%) | 63,115 (18%) |
| SUNFLOWERS | N.A. | N.A. | N.A. | 9,183 (2%) | 9,246 (2%) | 9,013 (3%) | 14,554 (5%) | 15,622 (5%) | 51,278 (14%) |
| OATS | 37,008 (12%) | 55,049 (18%) | 32,009 (11%) | 44,222 (10%) | 41,338 (10%) | 19,322 (7%) | 15,104 (5%) | 12,158 (4%) | 10,492 (3%) |
| RYE | 1,672 (1%) | 4,675 (2%) | 3,701 (1%) | 5,009 (1%) | 7,721 (2%) | 2,513 (1%) | 3,293 (1%) | 2,769 (1%) | 1,772 (1%) |
| FLAX SEED | 13,133 (4%) | 13,540 (4%) | 8,796 (3%) | 11,411 (3%) | 6,871 (2%) | 5,300 (2%) | 6,590 (2%) | 4,883 (2%) | 6,174 (2%) |
| MISC. | N.A. | N.A. | N.A. | 9,952 (2%) | 10,141 (2%) | 7,042 (2%) | 10,211 (3%) | 8,166 (3%) | 9,454 (3%) |
| TOTAL | 305,211 (100%) | 305,377 (100%) | 299,070 (100%) | 433,208 (100%) | 411,381 (100%) | 291,582 (100%) | 320,285 (100%) | 305,912 (100%) | 358,604 (100%) |

^aIncludes CCC shipments.

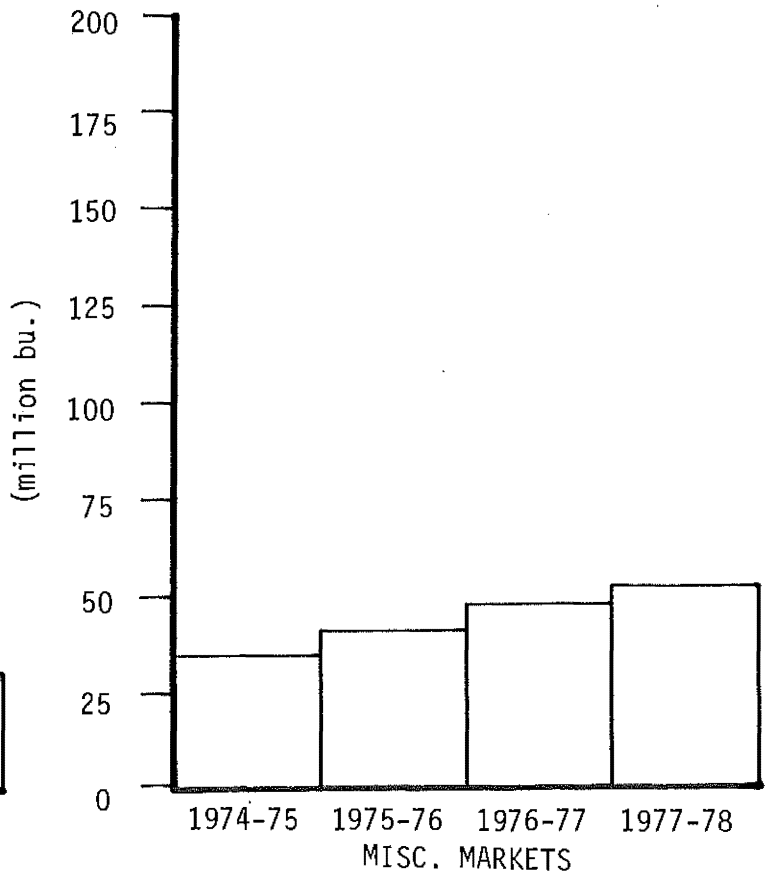
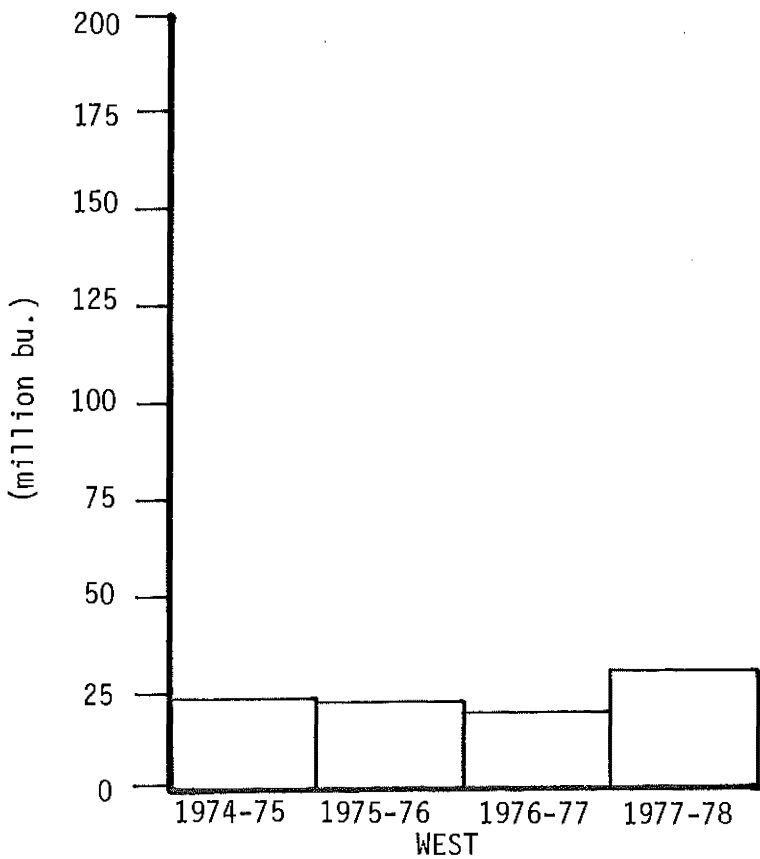
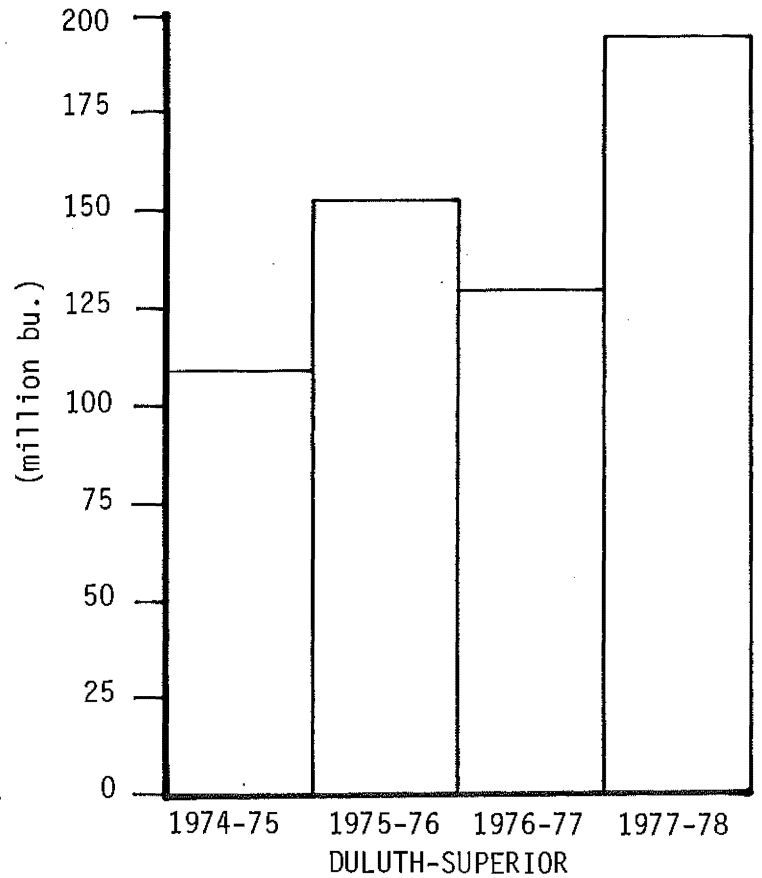
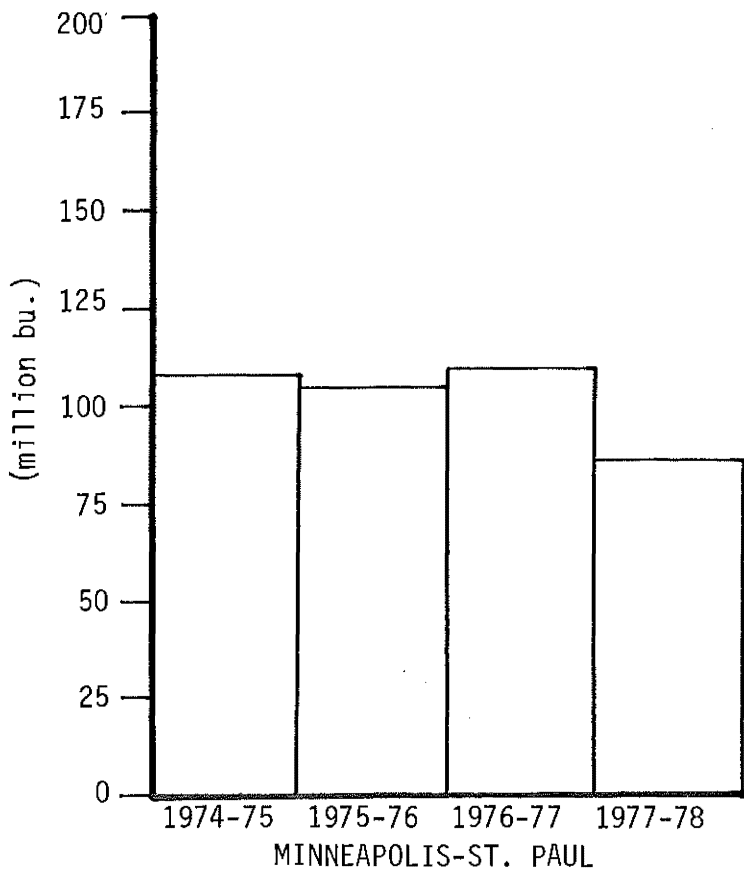
NORTH DAKOTA GRAIN AND OILSEED SHIPMENTS
1969-70 to 1977-78



NORTH DAKOTA GRAIN AND OILSEED SHIPMENTS
BY DESTINATION

| DESTINATION | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|-----------------------|-------------------|-------------------|-------------------|-------------------|
| | (thousand bu.) | | | |
| MINNEAPOLIS-ST. PAUL | 108,093 (39%) | 104,900 (33%) | 109,620 (36%) | 85,231 (24%) |
| DULUTH-SUPERIOR | 109,585 (40%) | 152,514 (48%) | 128,044 (42%) | 192,925 (54%) |
| WEST | 23,827 (9%) | 22,031 (7%) | 20,823 (7%) | 29,031 (8%) |
| MISCELLANEOUS MARKETS | 33,982 (12%) | 40,840 (13%) | 47,425 (16%) | 51,417 (14%) |
| TOTAL | 275,487 (100%) | 320,285 (100%) | 305,912 (100%) | 358,604 (100%) |

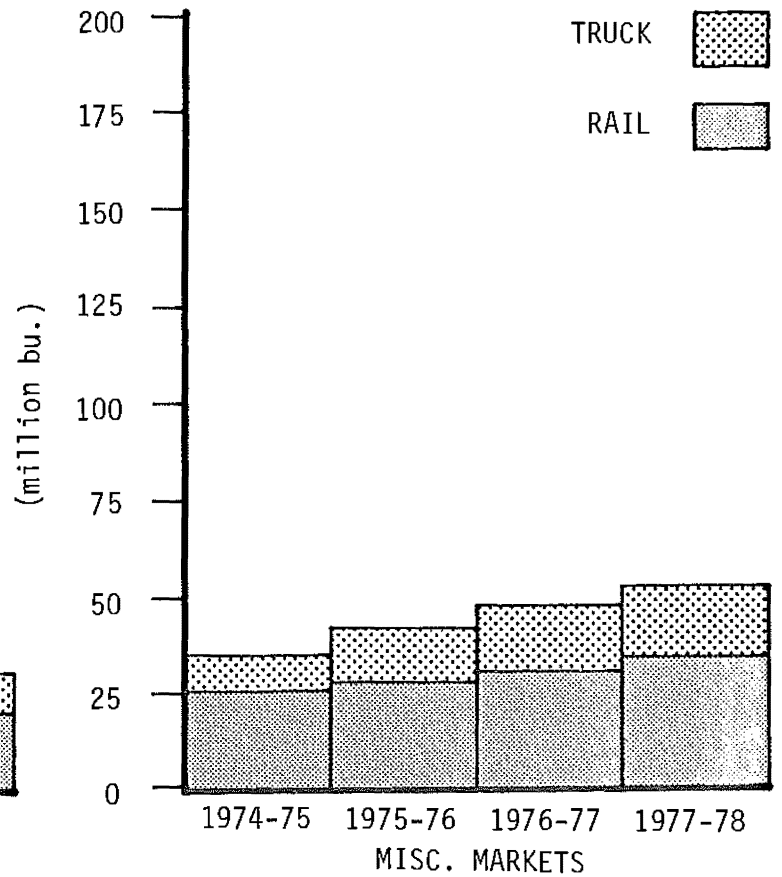
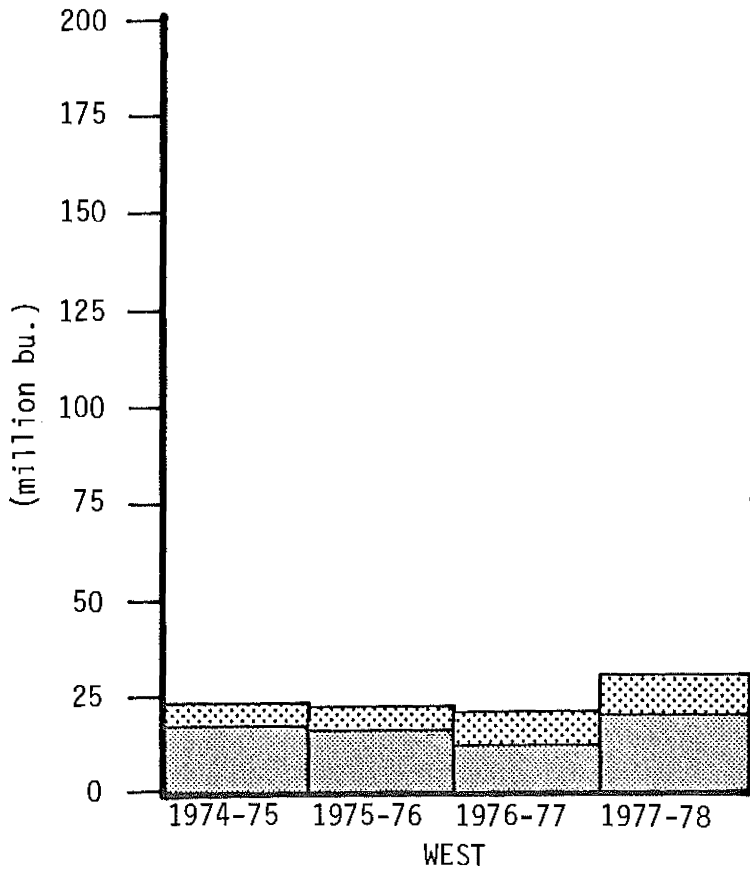
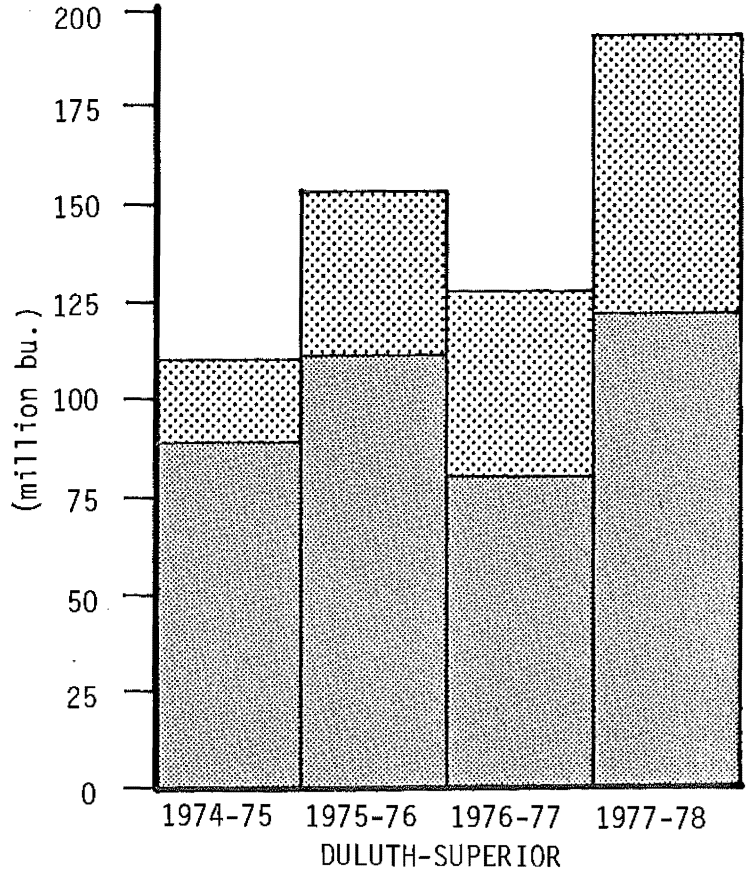
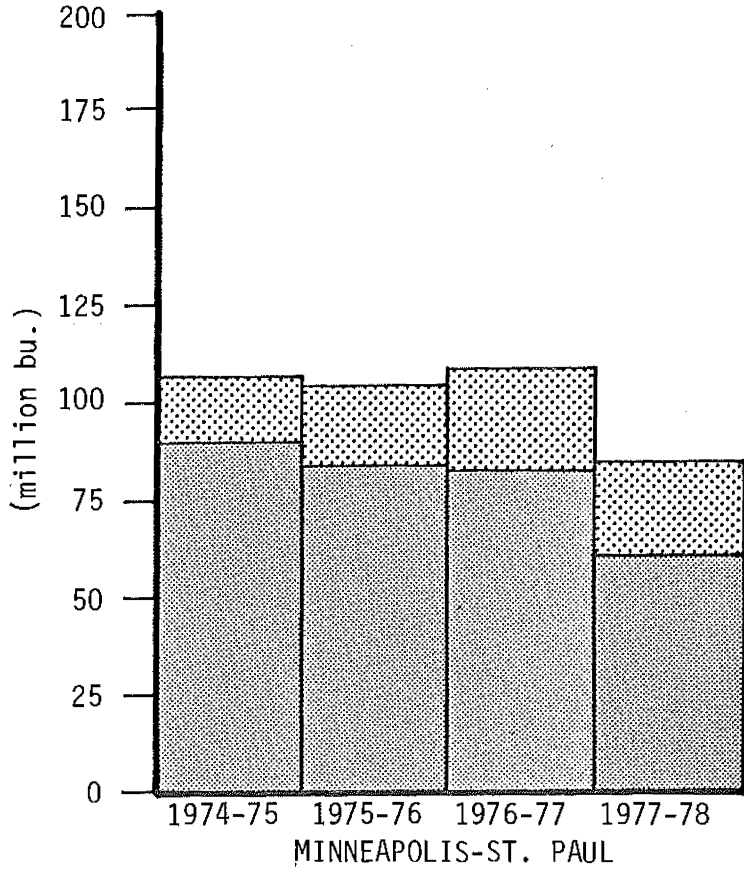
NORTH DAKOTA GRAIN AND OILSEED SHIPMENTS BY DESTINATION
1974-75 TO 1977-78



NORTH DAKOTA GRAIN AND OILSEED SHIPMENTS BY RAIL AND TRUCK AND DESTINATION

| DESTINATION | 1974-75 | | 1975-76 | | 1976-77 | | 1977-78 | |
|-----------------|------------------|-----------------|------------------|-----------------|------------------|------------------|------------------|------------------|
| | Rail | Truck | Rail | Truck | Rail | Truck | Rail | Truck |
| | (thousand bu.) | | | | | | | |
| MINN.-ST. PAUL | 90,556 (84%) | 17,537 (16%) | 83,290 (79%) | 21,610 (21%) | 82,764 (76%) | 26,856 (24%) | 60,859 (71%) | 24,372 (29%) |
| DULUTH-SUPERIOR | 88,428 (81%) | 21,157 (19%) | 110,012 (72%) | 42,502 (28%) | 80,207 (63%) | 47,837 (37%) | 121,899 (63%) | 71,025 (37%) |
| WEST | 17,148 (72%) | 6,679 (28%) | 15,376 (70%) | 6,654 (30%) | 11,703 (56%) | 9,120 (44%) | 19,386 (67%) | 9,645 (33%) |
| MISC. MARKETS | 25,790 (76%) | 8,192 (24%) | 27,813 (68%) | 13,027 (32%) | 30,455 (64%) | 16,970 (36%) | 33,034 (64%) | 18,384 (36%) |
| TOTAL | 221,922 (81%) | 53,565 (19%) | 236,491 (74%) | 83,793 (26%) | 205,129 (67%) | 100,783 (33%) | 235,178 (66%) | 123,426 (34%) |

NORTH DAKOTA GRAIN AND OILSEED SHIPMENTS
BY RAIL AND TRUCK AND DESTINATION

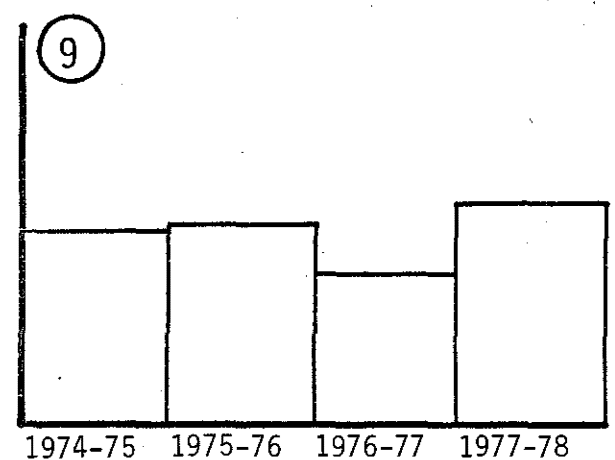
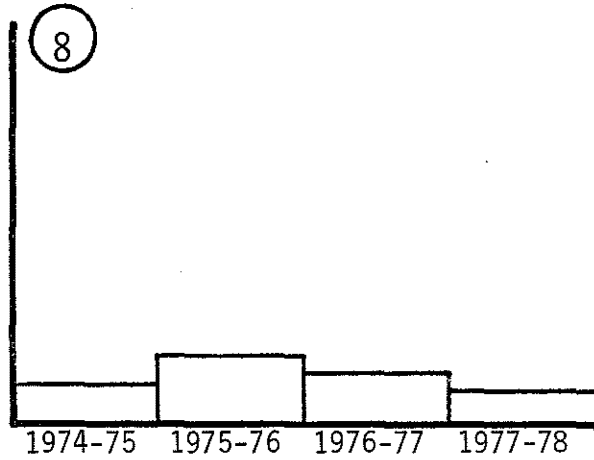
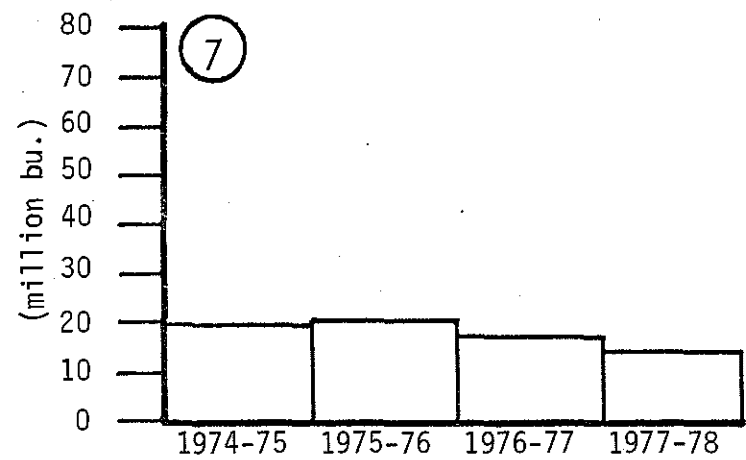
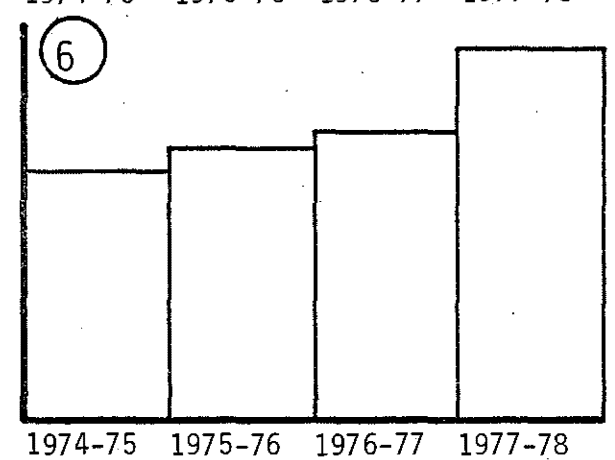
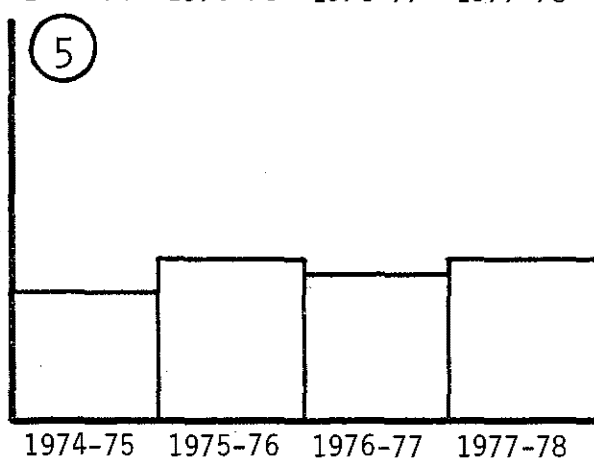
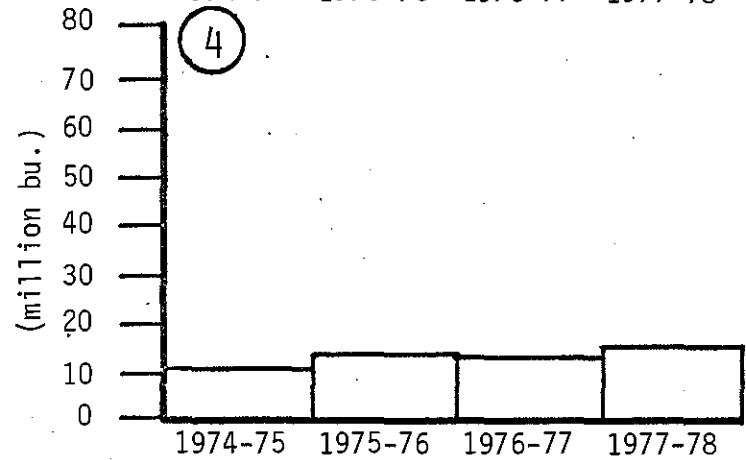
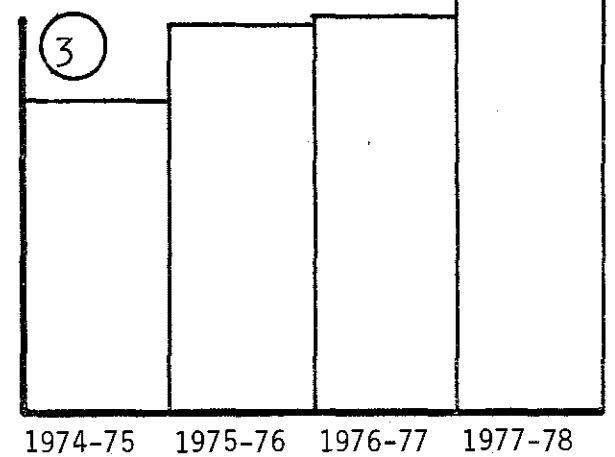
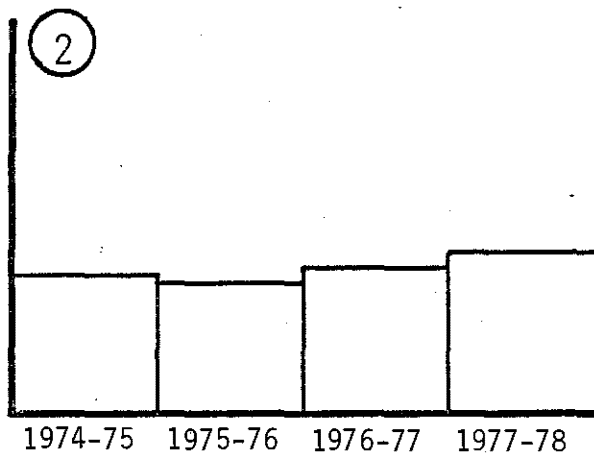
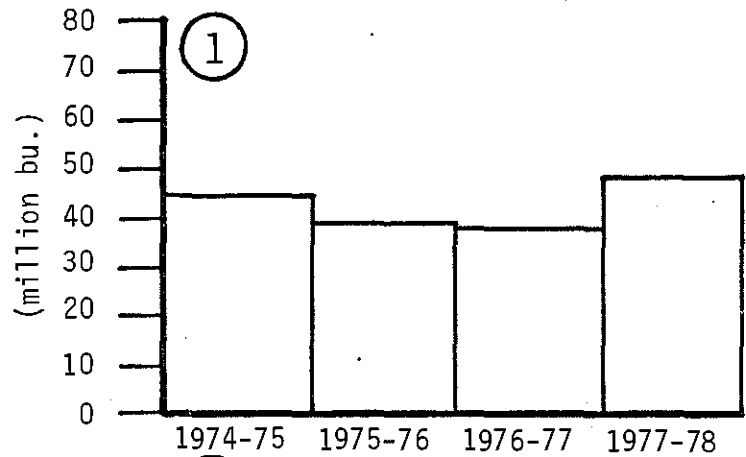


NORTH DAKOTA GRAIN AND OILSEED SHIPMENTS
BY ORIGIN
(CROP REPORTING DISTRICT)^a

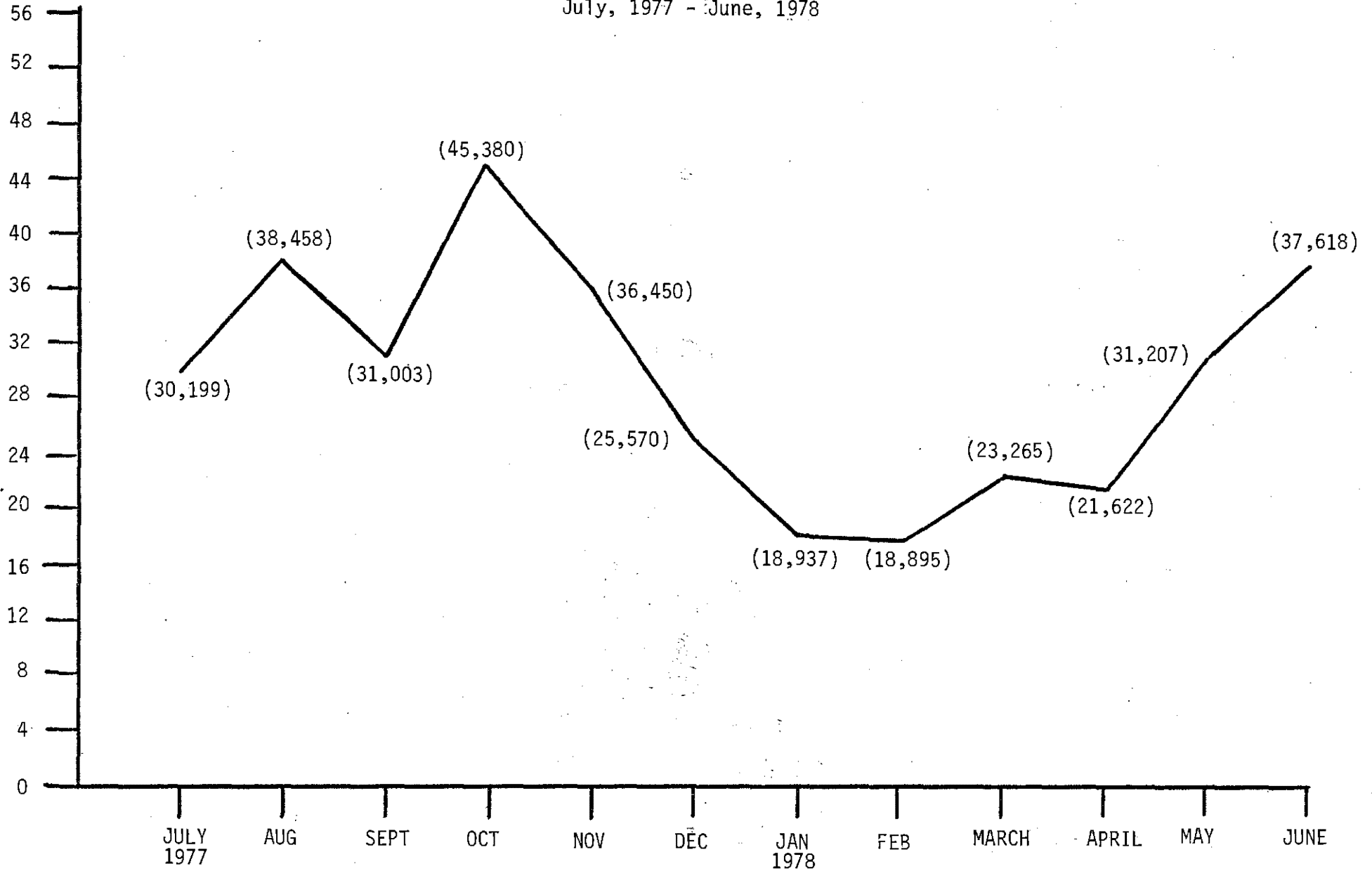
| CROP REPORTING DISTRICT | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|----------------------------|-------------------|-------------------|-------------------|-------------------|
| | (thousand bu). | | | |
| 1 | 44,971 (15%) | 39,254 (12%) | 38,628 (13%) | 47,881 (13%) |
| 2 | 28,141 (10%) | 27,362 (9%) | 29,421 (10%) | 32,552 (9%) |
| 3 | 65,398 (22%) | 78,193 (24%) | 80,085 (26%) | 92,607 (26%) |
| 4 | 10,852 (4%) | 13,941 (4%) | 13,315 (4%) | 14,323 (4%) |
| 5 | 25,997 (9%) | 33,031 (10%) | 29,763 (10%) | 32,575 (9%) |
| 6 | 50,683 (17%) | 55,875 (17%) | 58,924 (19%) | 74,423 (21%) |
| 7 | 19,533 (7%) | 20,044 (6%) | 17,044 (6%) | 14,150 (4%) |
| 8 | 7,696 (3%) | 12,834 (4%) | 9,454 (3%) | 6,373 (2%) |
| 9 | 38,311 (13%) | 39,748 (12%) | 29,280 (10%) | 43,721 (12%) |
| Total | 291,582 (100%) | 320,282 (100%) | 305,914 (100%) | 358,605 (100%) |

^aIncludes hard red spring, durum, sunflowers, barley, oats, rye, flax, and miscellaneous commodities.

NORTH DAKOTA GRAIN AND OILSEED SHIPMENTS BY ORIGIN
(CROP REPORTING DISTRICTS)



NORTH DAKOTA GRAIN AND OILSEED MOVEMENTS BY MONTH
July, 1977 - June, 1978

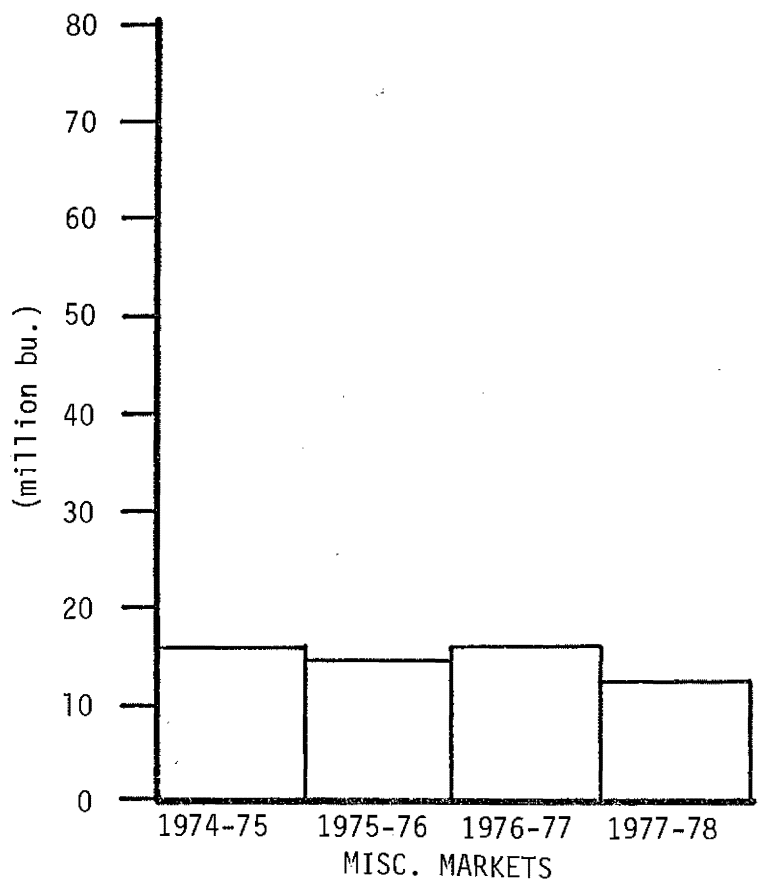
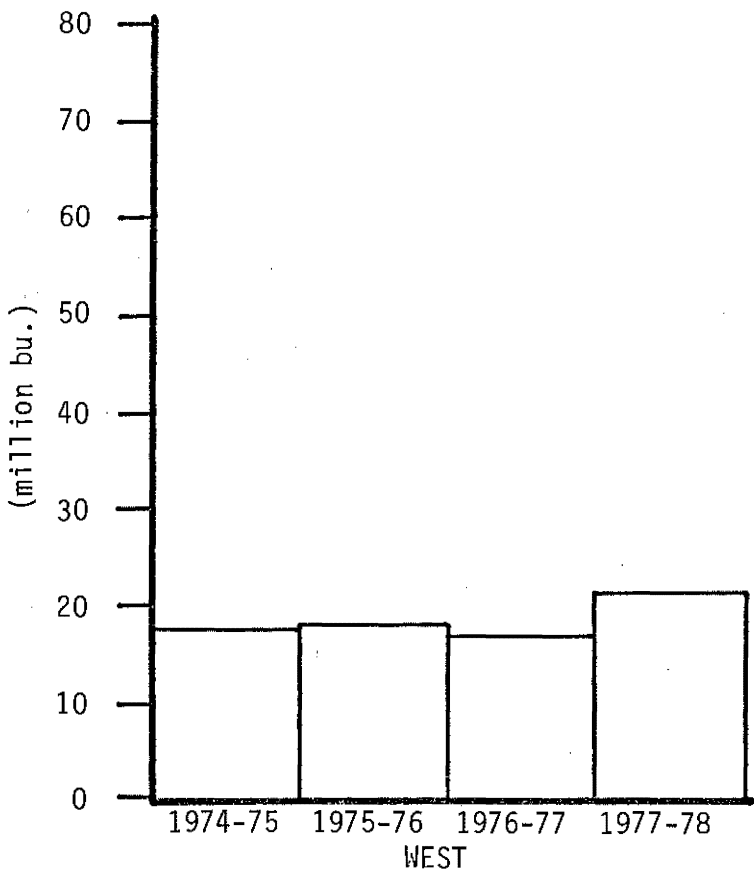
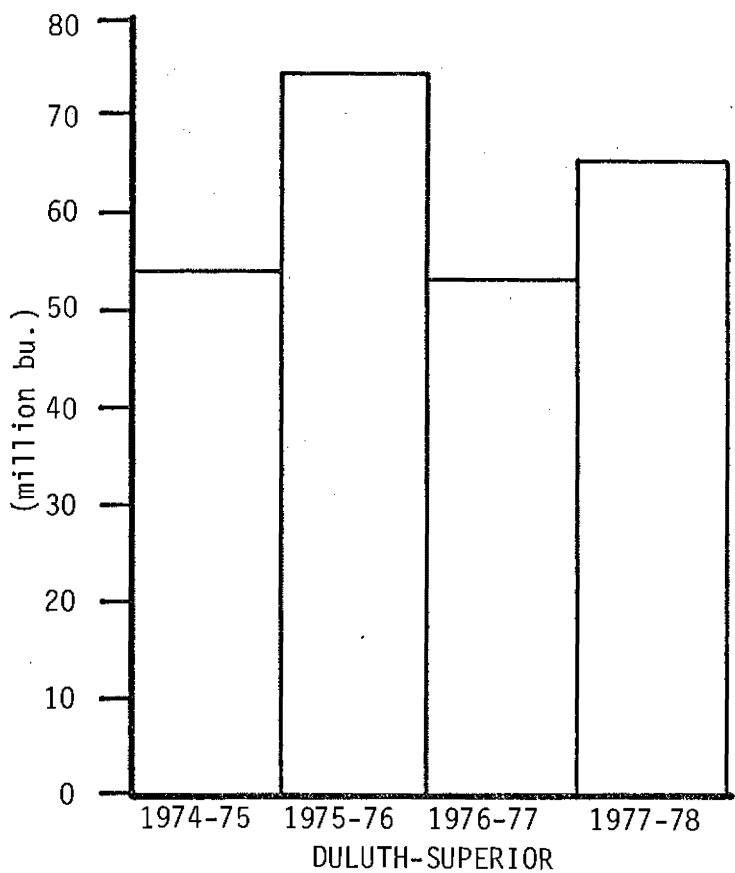
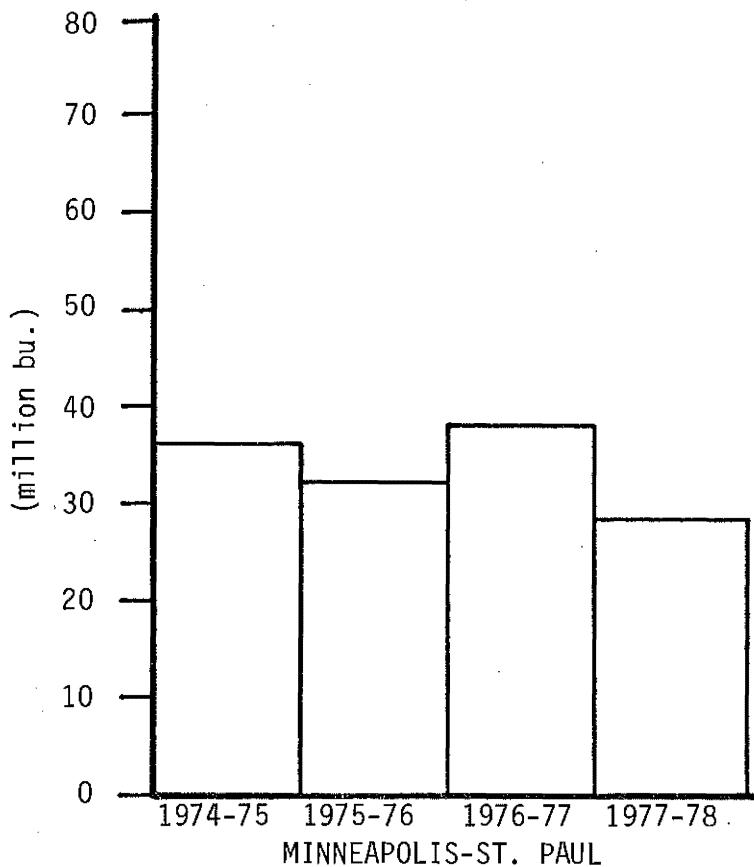


**HARD RED
SPRING WHEAT**

NORTH DAKOTA HARD RED SPRING WHEAT SHIPMENTS
BY DESTINATION

| DESTINATION | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|-----------------------|-------------------|-------------------|-------------------|-------------------|
| MINNEAPOLIS-ST. PAUL | 35,485 (29%) | 32,855 (24%) | 38,230 (31%) | 28,199 (22%) |
| DULUTH-SUPERIOR | 54,419 (44%) | 74,467 (53%) | 53,419 (43%) | 65,832 (51%) |
| WEST | 17,713 (14%) | 17,788 (13%) | 16,675 (13%) | 21,502 (17%) |
| MISCELLANEOUS MARKETS | 15,317 (12%) | 14,253 (10%) | 15,651 (13%) | 12,420 (10%) |
| TOTAL | 122,934 (100%) | 139,363 (100%) | 123,975 (100%) | 127,953 (100%) |

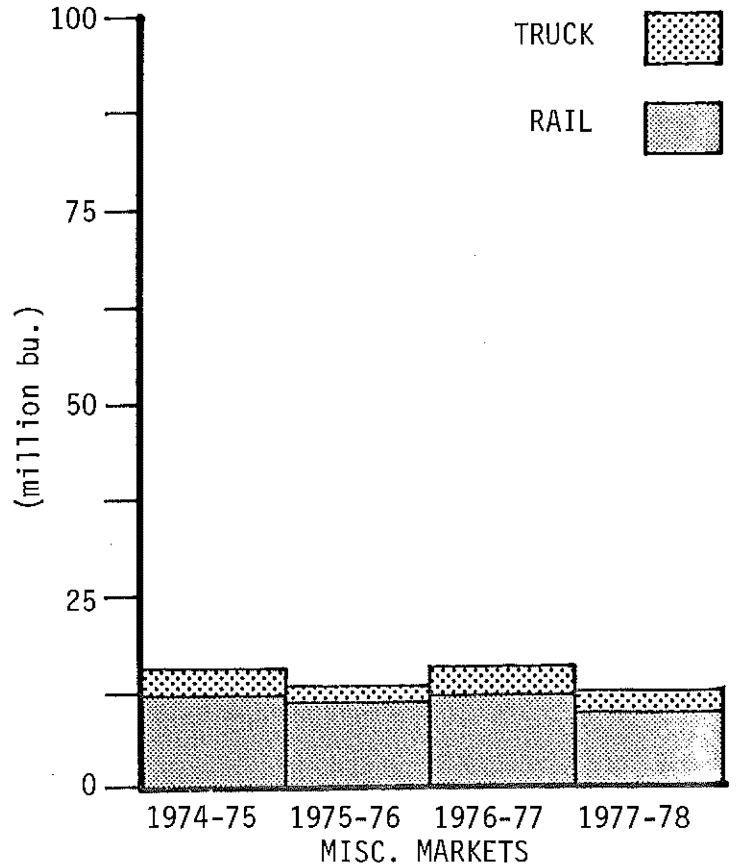
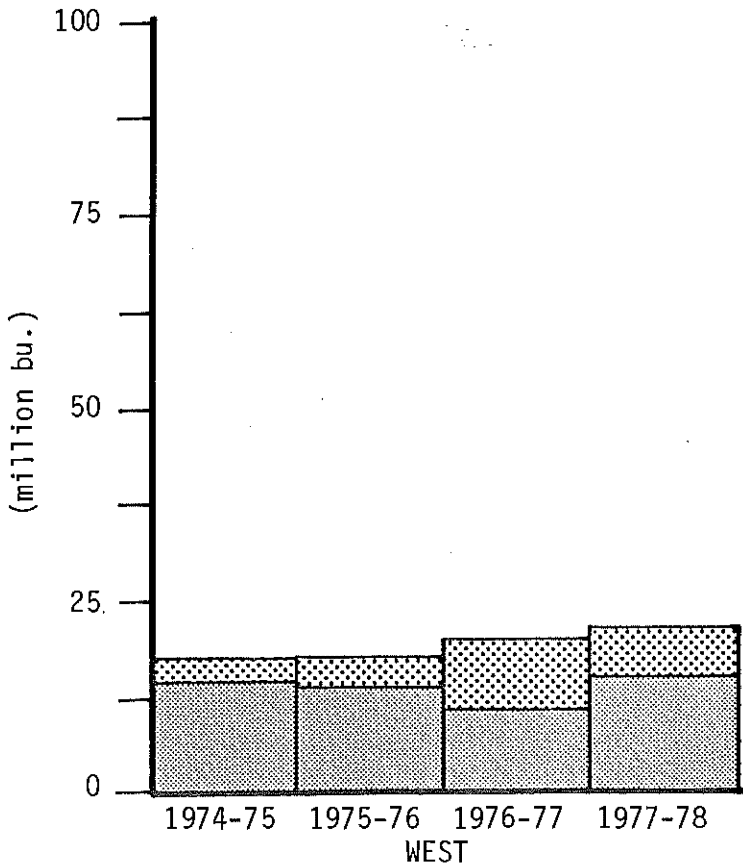
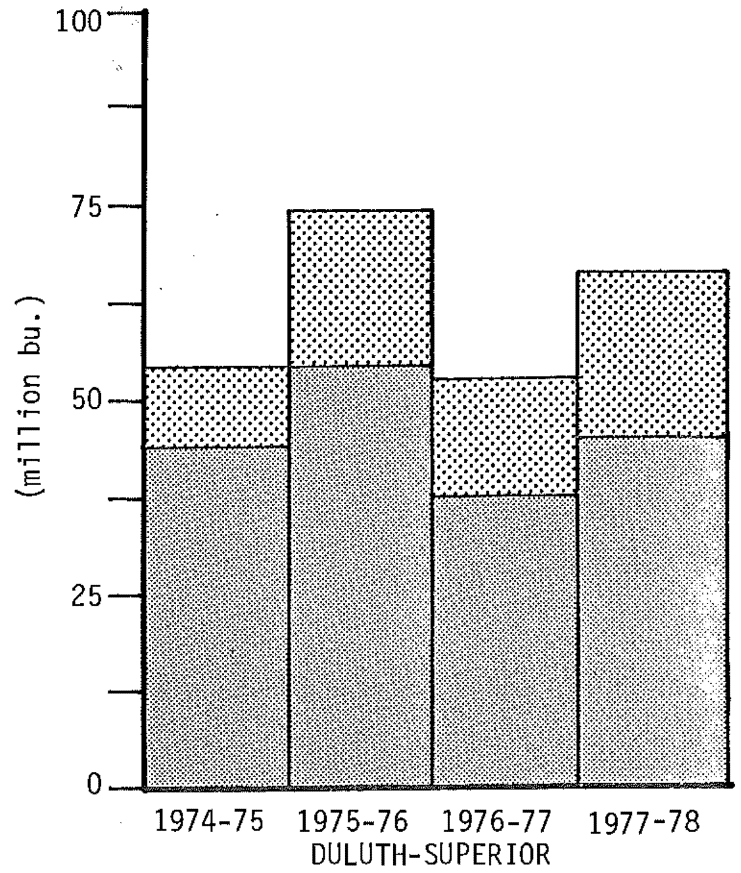
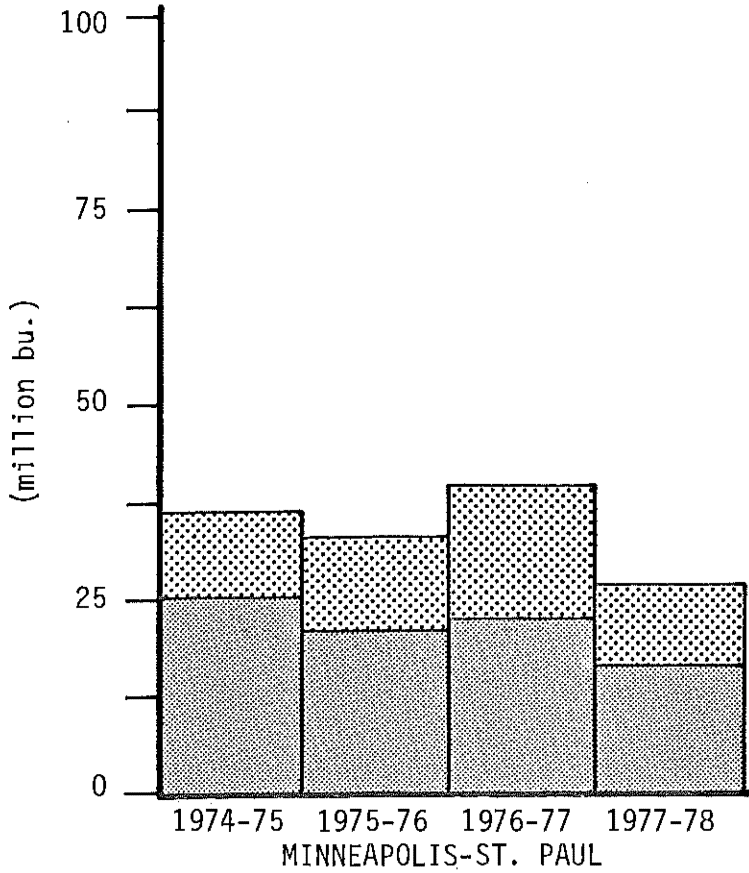
NORTH DAKOTA HARD RED SPRING WHEAT SHIPMENTS
BY DESTINATION





NORTH DAKOTA HARD RED SPRING WHEAT SHIPMENTS BY RAIL AND TRUCK AND DESTINATION

| DESTINATION | 1974-75 | | 1975-76 | | 1976-77 | | 1977-78 | |
|-------------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | Rail | Truck | Rail | Truck | Rail | Truck | Rail | Truck |
| | (thousand bu.) | | | | | | | |
| MINN. - ST. PAUL | 25,518 (72%) | 9,967 (28%) | 21,832 (66%) | 11,023 (34%) | 22,206 (58%) | 16,024 (42%) | 16,211 (57%) | 11,988 (43%) |
| DULUTH - SUPERIOR | 44,216 (81%) | 10,203 (19%) | 54,310 (73%) | 20,157 (27%) | 37,140 (70%) | 16,280 (30%) | 46,283 (70%) | 19,548 (30%) |
| WEST | 15,566 (88%) | 2,147 (12%) | 14,261 (80%) | 3,527 (20%) | 10,629 (64%) | 6,047 (36%) | 14,630 (68%) | 6,873 (32%) |
| MISC. MARKETS | 12,184 (80%) | 3,132 (20%) | 11,421 (80%) | 2,832 (20%) | 12,249 (78%) | 3,402 (22%) | 9,385 (76%) | 3,035 (24%) |
| TOTAL | 97,484 (79%) | 25,449 (21%) | 101,824 (73%) | 37,539 (27%) | 82,224 (66%) | 41,753 (33%) | 86,509 (68%) | 41,444 (32%) |

NORTH DAKOTA HARD RED SPRING WHEAT SHIPMENTS
BY RAIL AND TRUCK AND DESTINATION

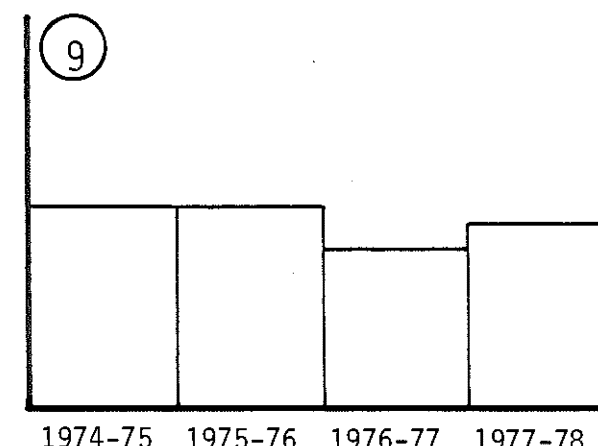
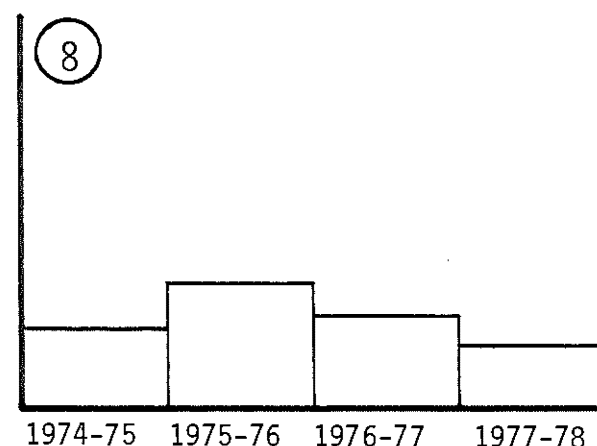
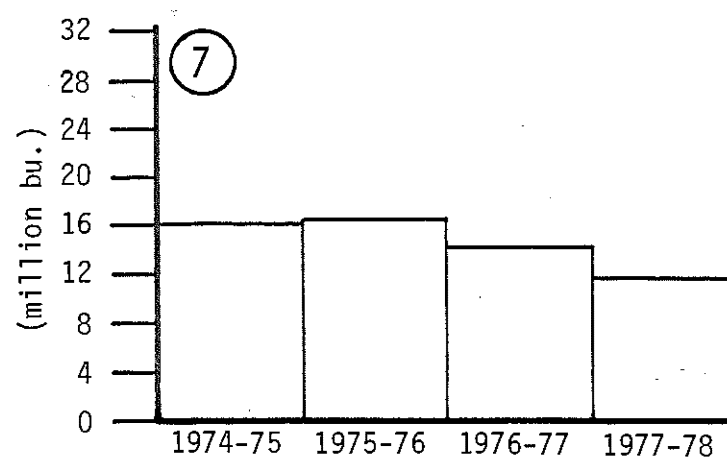
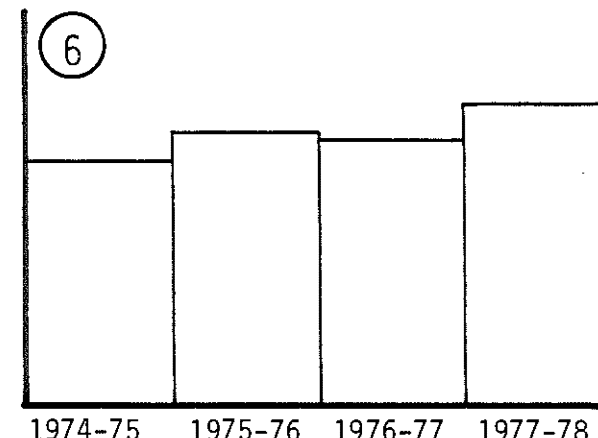
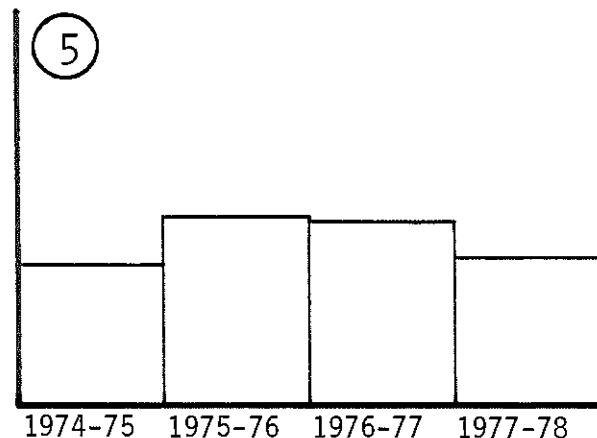
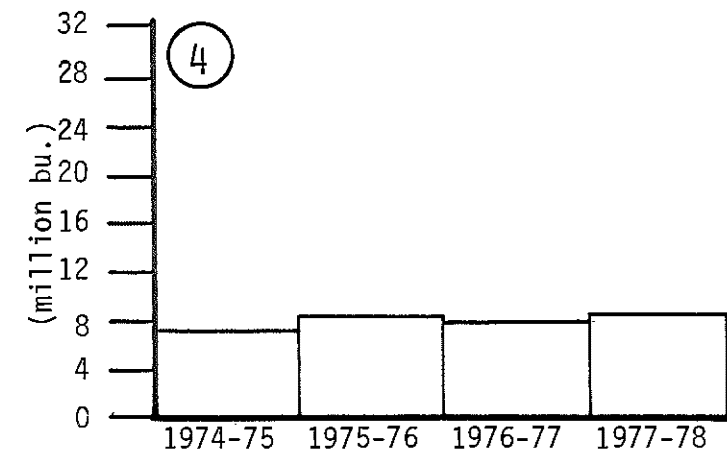
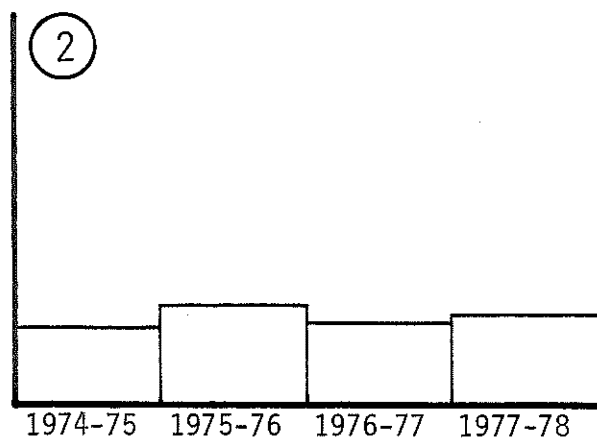
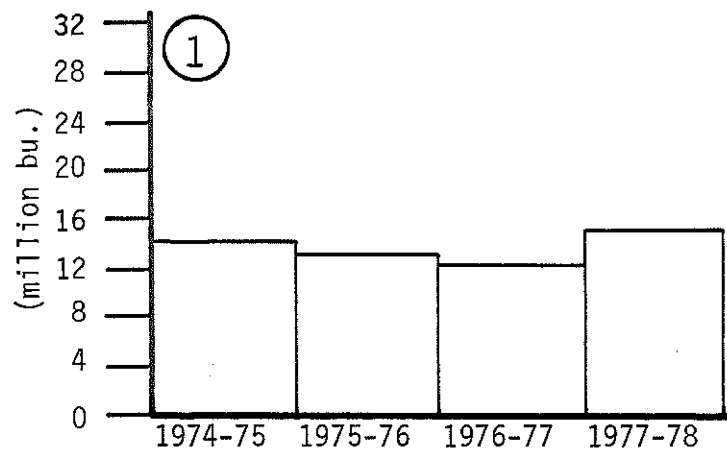


TRUCK 
RAIL 

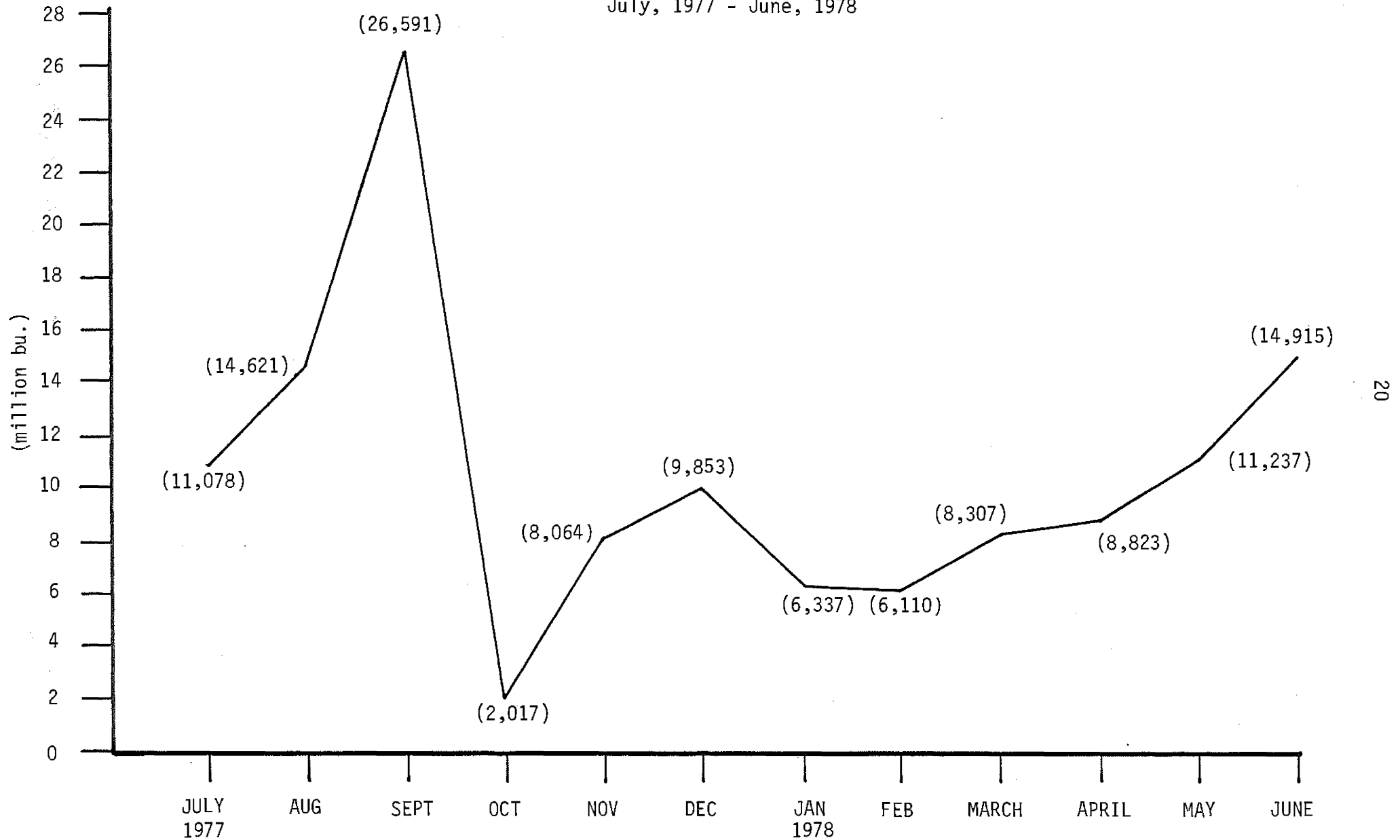
NORTH DAKOTA HARD RED SPRING WHEAT SHIPMENTS
BY ORIGIN
(CROP REPORTING DISTRICT)

| CROP REPORTING DISTRICT | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|----------------------------|----------------|---------|---------|---------|
| | (thousand bu.) | | | |
| 1 | 14,472 | 13,179 | 12,657 | 15,009 |
| 2 | 6,279 | 7,872 | 6,807 | 7,370 |
| 3 | 22,893 | 27,698 | 24,053 | 27,331 |
| 4 | 6,955 | 8,821 | 8,209 | 8,477 |
| 5 | 11,473 | 15,695 | 15,253 | 12,521 |
| 6 | 21,393 | 22,962 | 22,000 | 25,013 |
| 7 | 16,138 | 16,422 | 14,182 | 11,563 |
| 8 | 6,609 | 9,993 | 7,782 | 5,567 |
| 9 | 16,720 | 16,720 | 13,033 | 15,103 |
| TOTAL | 122,932 | 139,362 | 123,976 | 127,954 |

NORTH DAKOTA HARD RED SPRING WHEAT SHIPMENTS BY ORIGIN
(CROP REPORTING DISTRICT)



NORTH DAKOTA HARD RED SPRING WHEAT MOVEMENTS BY MONTH
July, 1977 - June, 1978

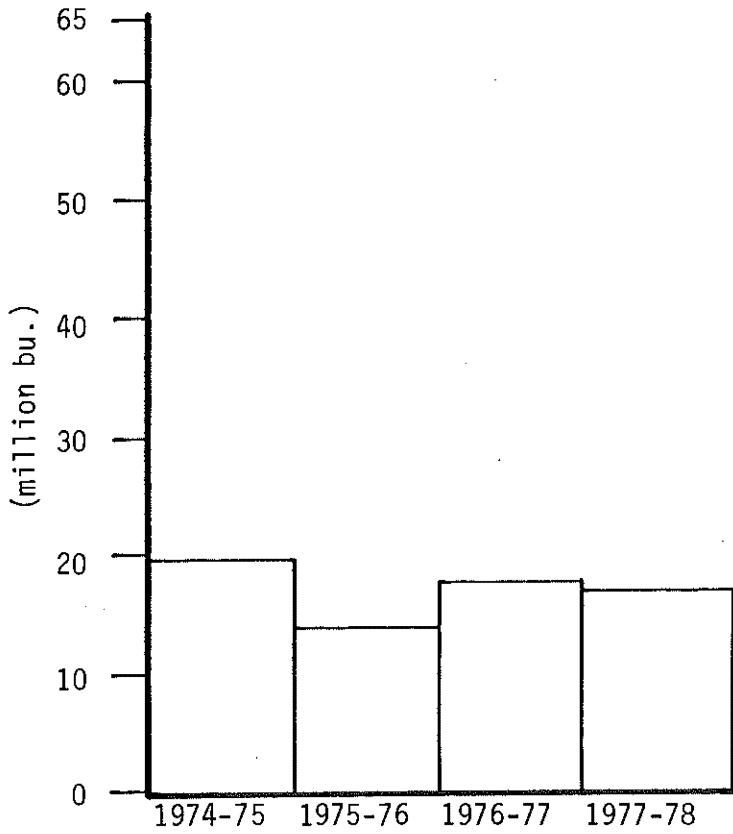


**DURUM WHEAT
MOVEMENTS**

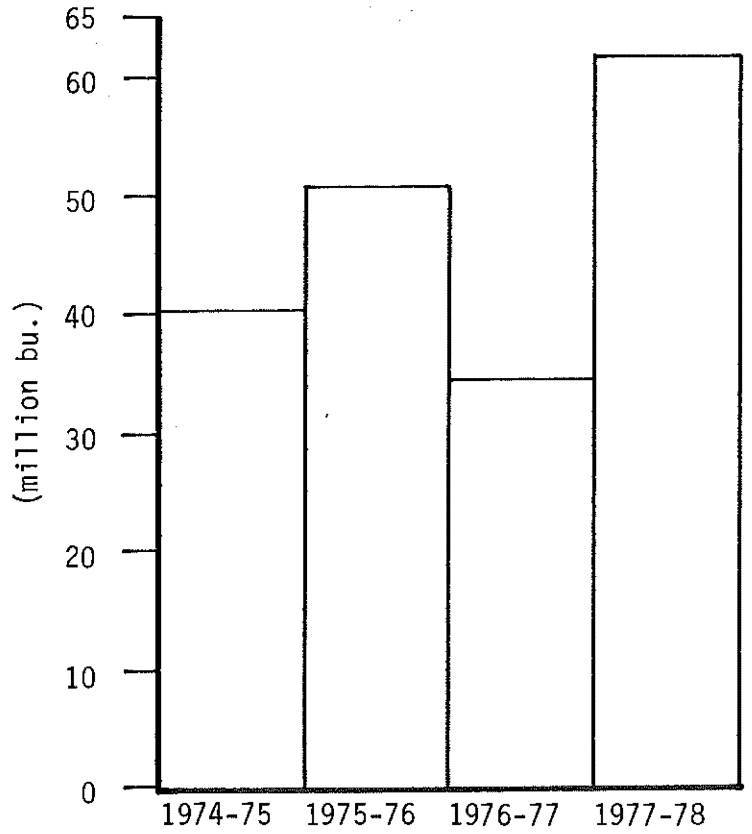
NORTH DAKOTA DURUM SHIPMENTS
BY DESTINATION

| DESTINATION | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|-----------------------|------------------|------------------|------------------|------------------|
| | (thousand bu.) | | | |
| MINNEAPOLIS-ST. PAUL | 19,455 (28%) | 14,905 (20%) | 17,024 (26%) | 16,478 (19%) |
| DULUTH-SUPERIOR | 40,728 (59%) | 51,553 (69%) | 35,537 (55%) | 61,990 (70%) |
| WEST | 847 (1%) | 434 (1%) | 1,636 (3%) | 1,339 (2%) |
| MISCELLANEOUS MARKETS | 7,751 (11%) | 7,925 (11%) | 10,827 (17%) | 8,559 (10%) |
| TOTAL | 68,781 (100%) | 74,817 (100%) | 65,024 (100%) | 88,366 (100%) |

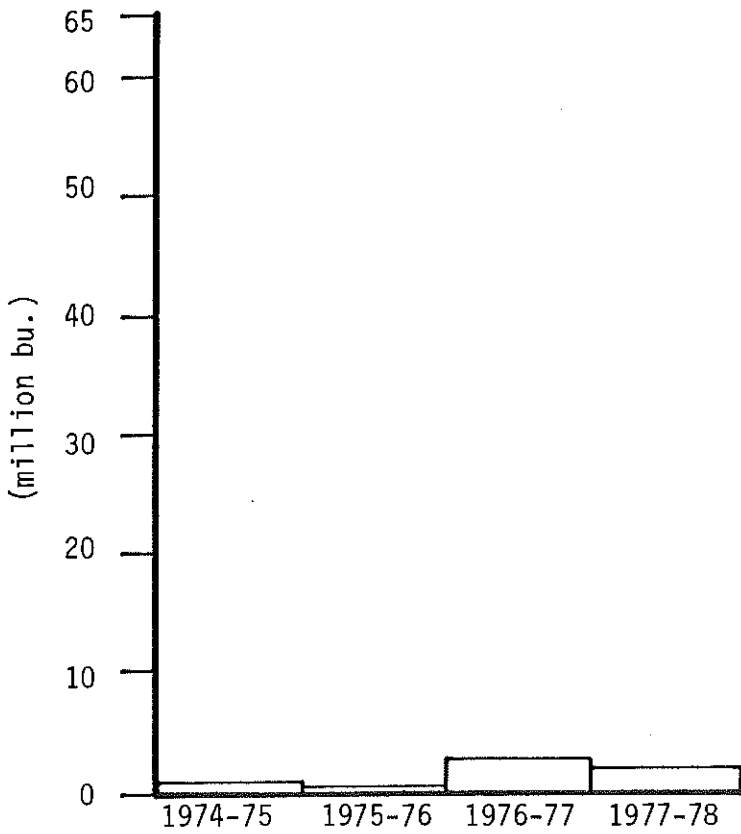
NORTH DAKOTA DURUM SHIPMENTS BY DESTINATION



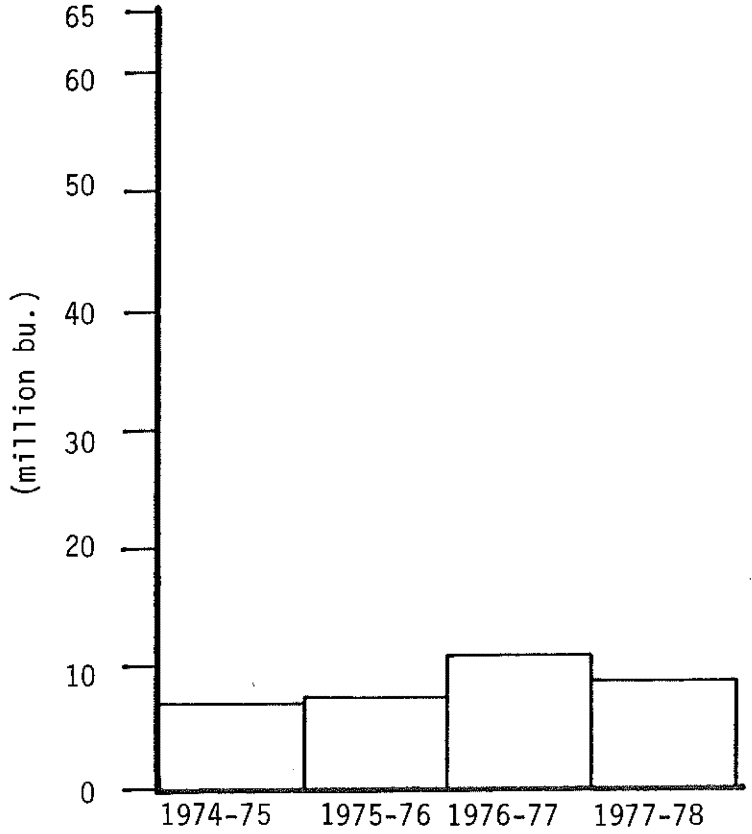
MINNEAPOLIS-ST. PAUL



DULUTH-SUPERIOR



WEST

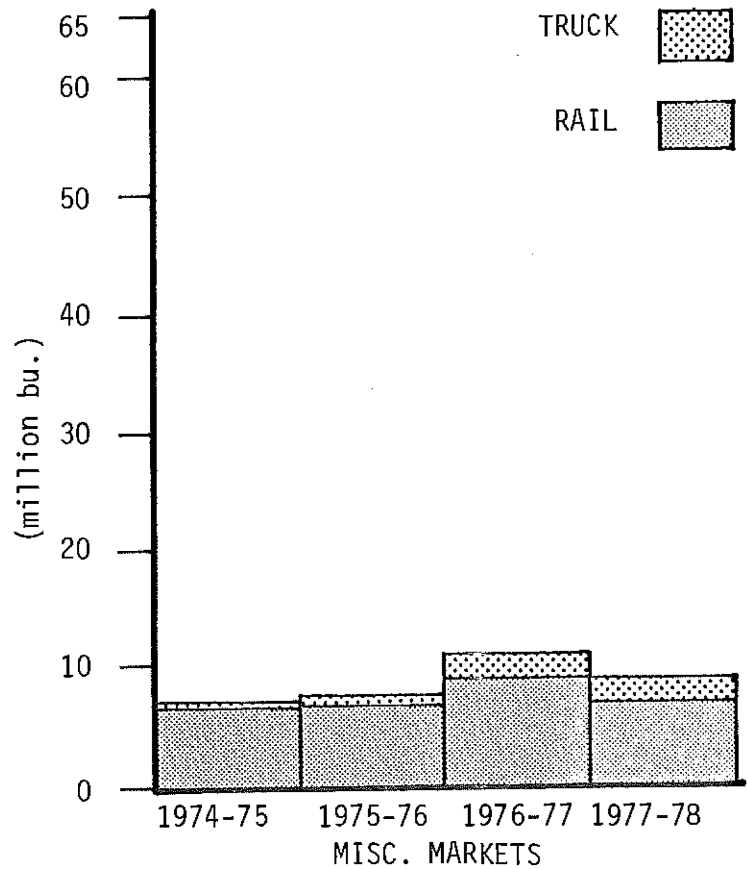
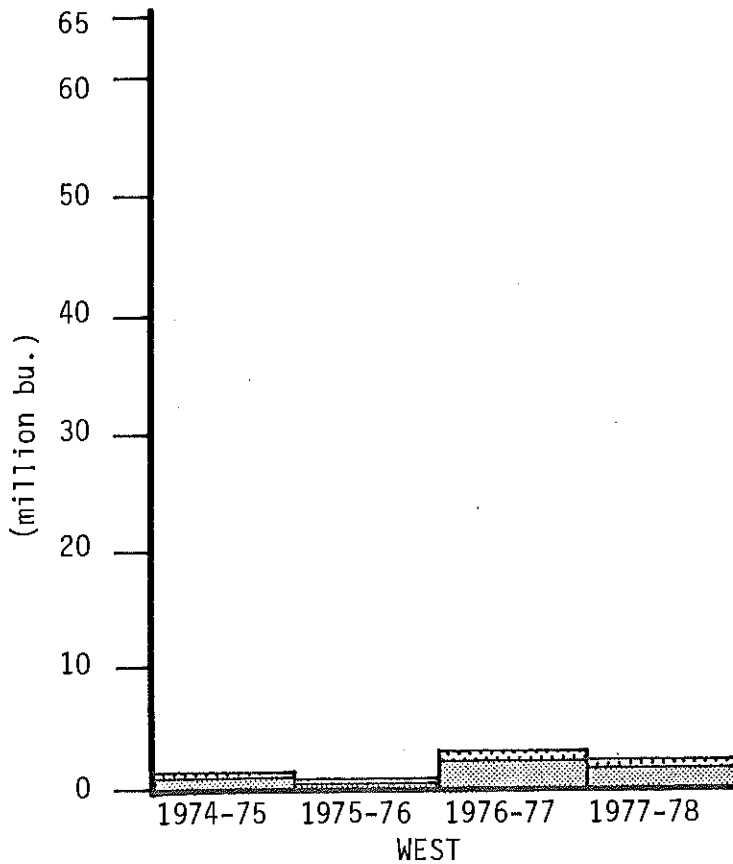
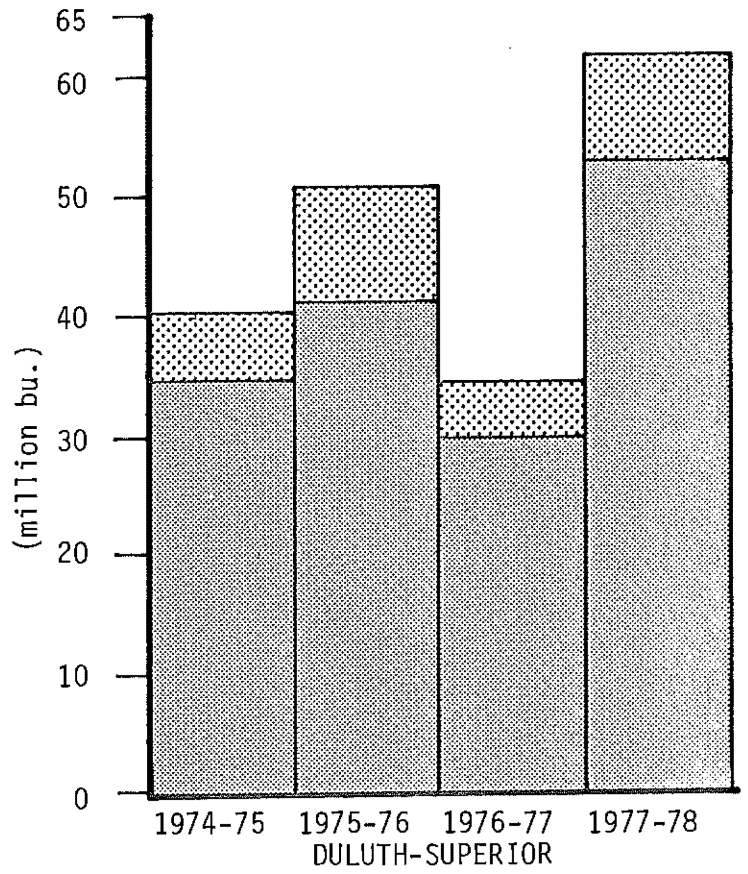
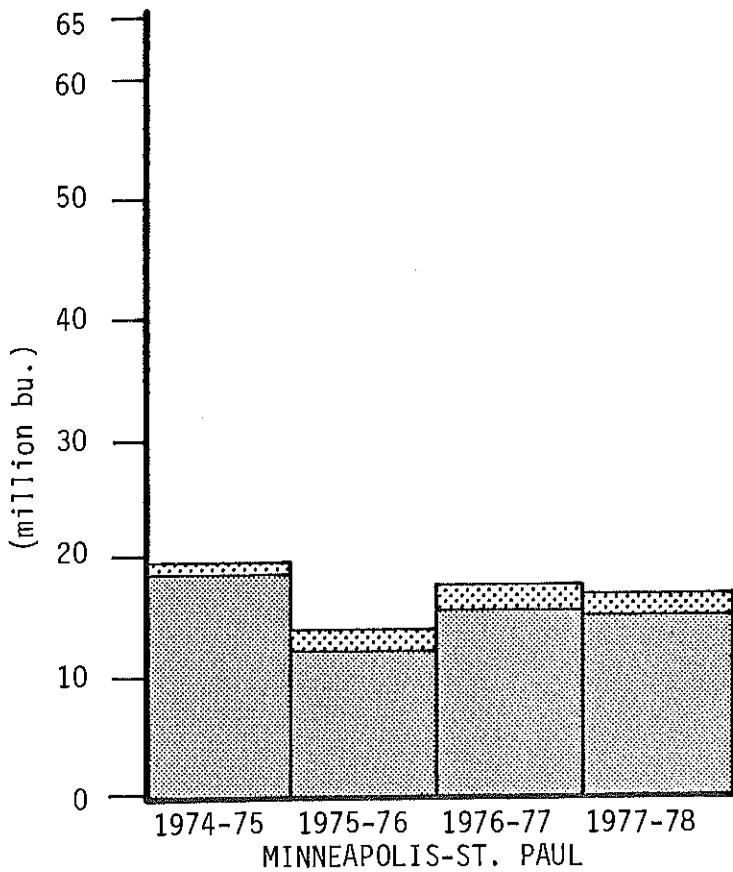


MISC. MARKETS

NORTH DAKOTA DURUM SHIPMENTS BY RAIL AND TRUCK AND DESTINATION

| DESTINATION | 1974-75 | | 1975-76 | | 1976-77 | | 1977-78 | |
|-------------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | Rail | Truck | Rail | Truck | Rail | Truck | Rail | Truck |
| (thousand bu.) | | | | | | | | |
| MINN. - ST. PAUL | 18,489 (95%) | 966 (5%) | 12,790 (86%) | 2,115 (14%) | 14,664 (86%) | 2,360 (14%) | 14,576 (88%) | 1,902 (12%) |
| DULUTH - SUPERIOR | 35,770 (88%) | 4,957 (12%) | 42,620 (83%) | 8,933 (17%) | 29,747 (84%) | 5,790 (16%) | 52,552 (85%) | 9,438 (15%) |
| WEST | 608 (72%) | 239 (28%) | 263 (61%) | 171 (39%) | 481 (29%) | 1,155 (71%) | 871 (65%) | 468 (35%) |
| MISC. MARKETS | 7,505 (97%) | 246 (3%) | 7,184 (91%) | 741 (9%) | 9,681 (89%) | 1,147 (11%) | 7,419 (87%) | 1,139 (13%) |
| TOTAL | 62,372 (91%) | 6,408 (9%) | 62,857 (84%) | 11,960 (16%) | 54,573 (84%) | 10,452 (16%) | 75,418 (85%) | 12,947 (15%) |

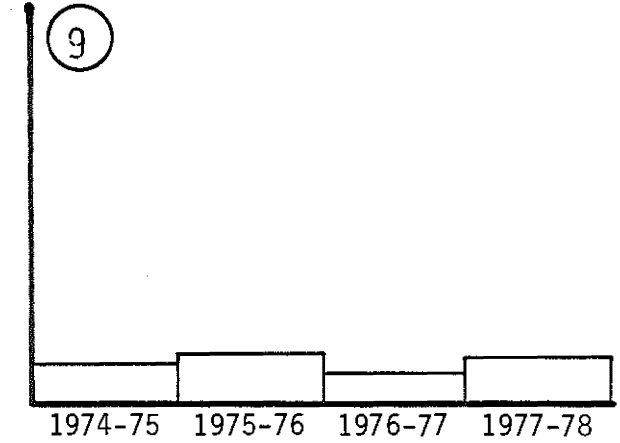
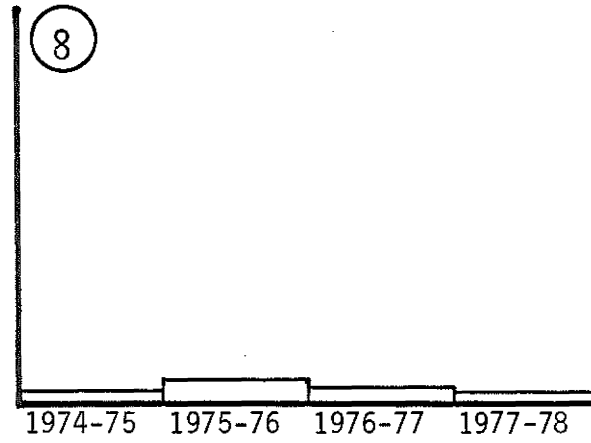
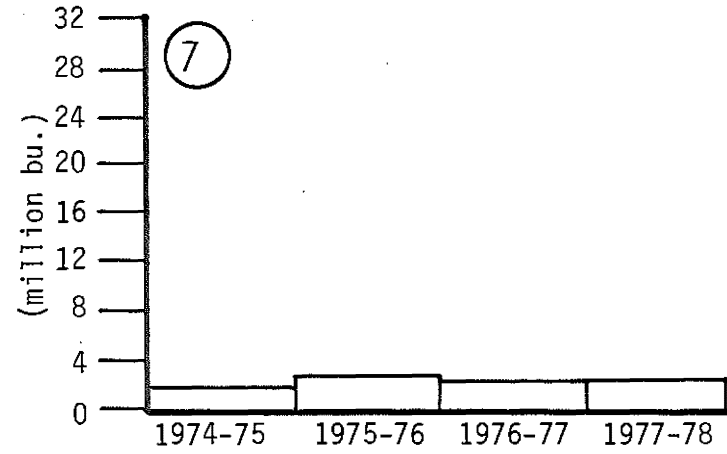
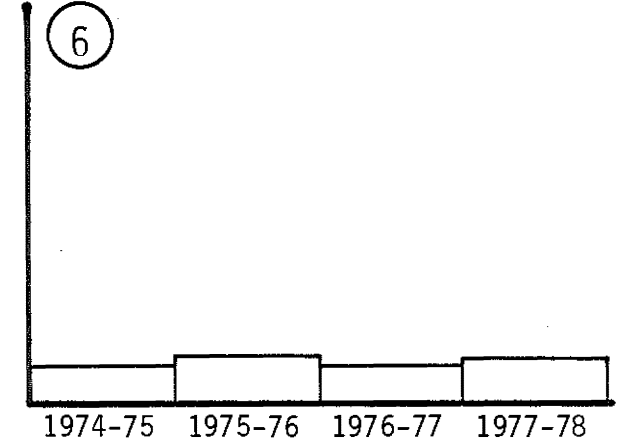
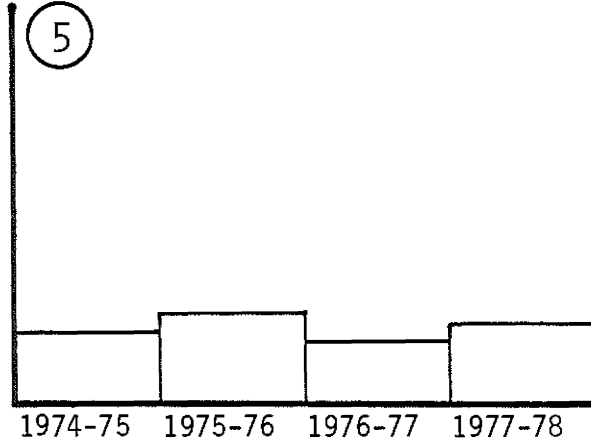
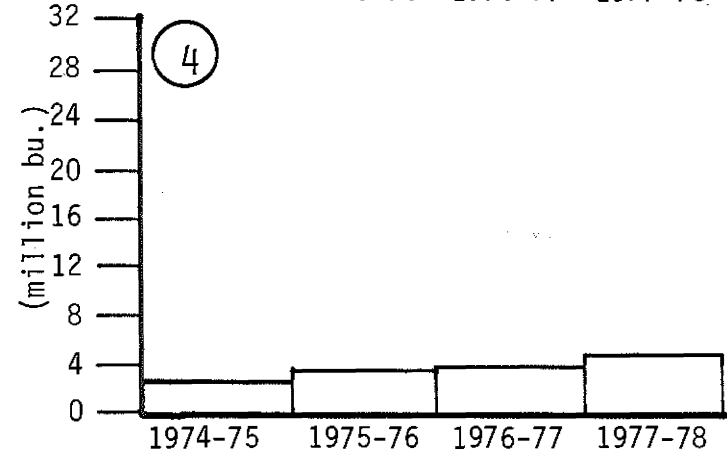
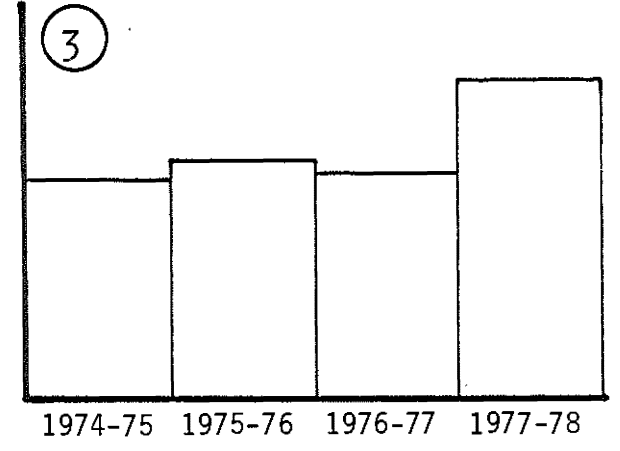
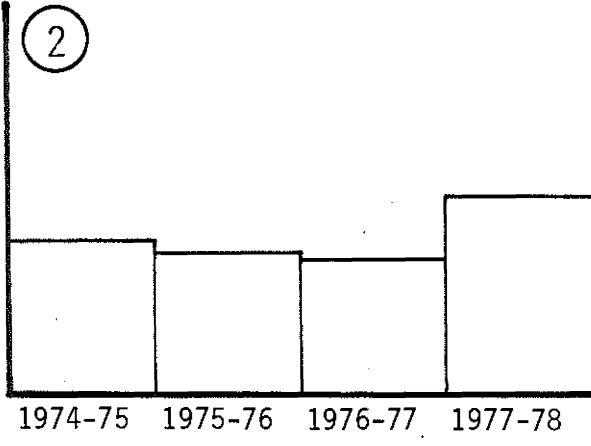
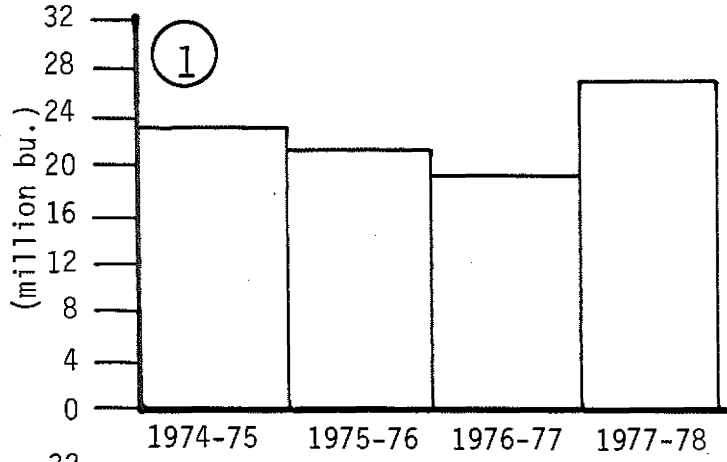
NORTH DAKOTA DURUM SHIPMENTS
BY RAIL AND TRUCK AND DESTINATION



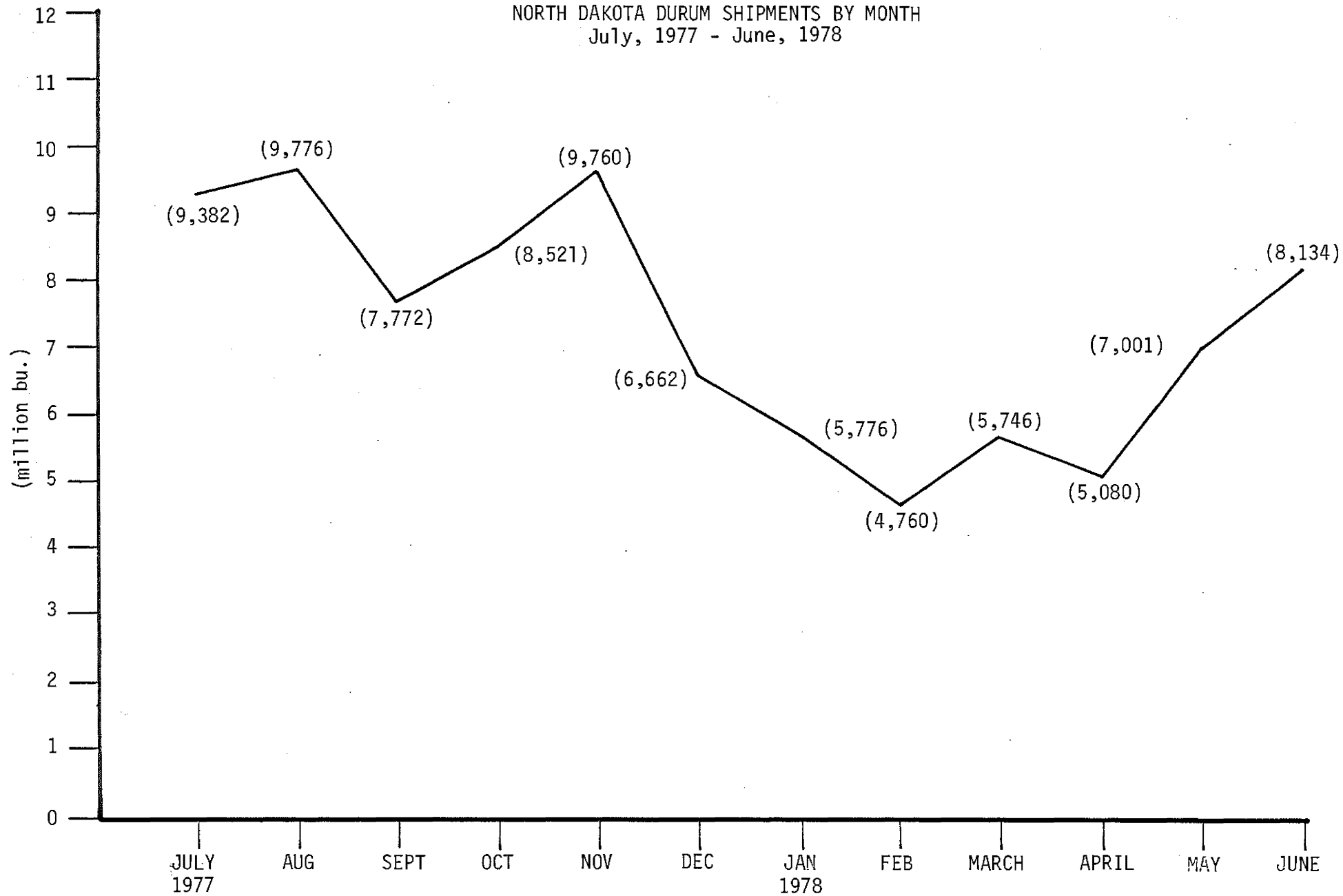
NORTH DAKOTA DURUM SHIPMENTS
BY ORIGIN
(CROP REPORTING DISTRICT)

| CROP REPORTING DISTRICT | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|----------------------------|----------------|---------|---------|---------|
| | (thousand bu.) | | | |
| 1 | 22,973 | 21,573 | 19,420 | 26,813 |
| 2 | 12,685 | 11,404 | 11,279 | 16,378 |
| 3 | 17,326 | 19,272 | 18,168 | 25,707 |
| 4 | 2,717 | 3,696 | 3,728 | 4,449 |
| 5 | 5,466 | 7,270 | 4,960 | 5,945 |
| 6 | 2,555 | 3,558 | 2,573 | 3,269 |
| 7 | 1,871 | 2,844 | 2,013 | 2,071 |
| 8 | 543 | 1,331 | 760 | 469 |
| 9 | 2,642 | 3,870 | 2,123 | 3,266 |
| TOTAL | 68,778 | 74,818 | 65,024 | 88,367 |

NORTH DAKOTA DURUM SHIPMENTS BY ORIGIN
(CROP REPORTING DISTRICT)



NORTH DAKOTA DURUM SHIPMENTS BY MONTH
July, 1977 - June, 1978

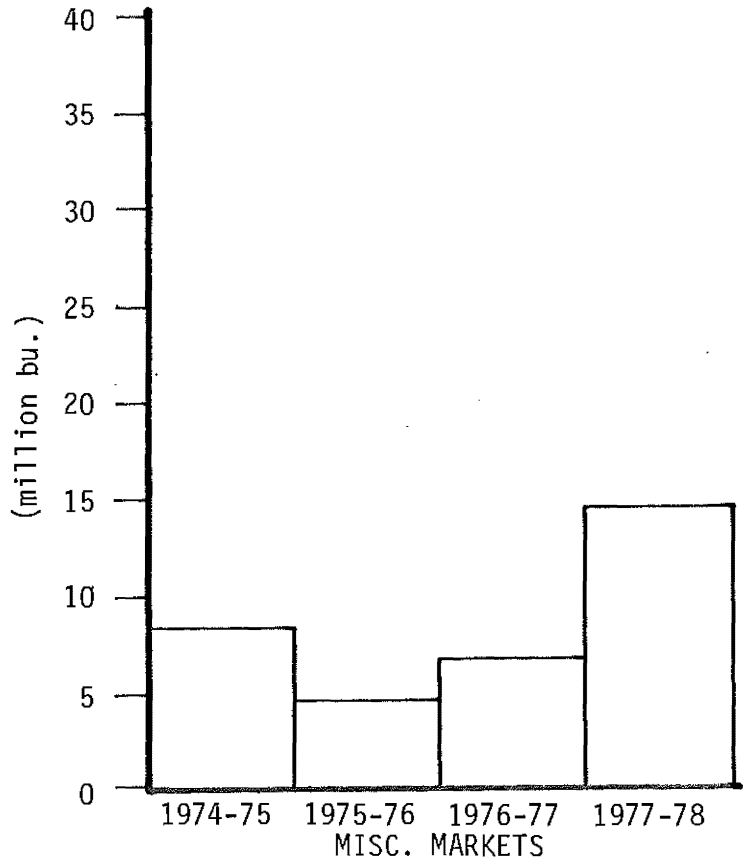
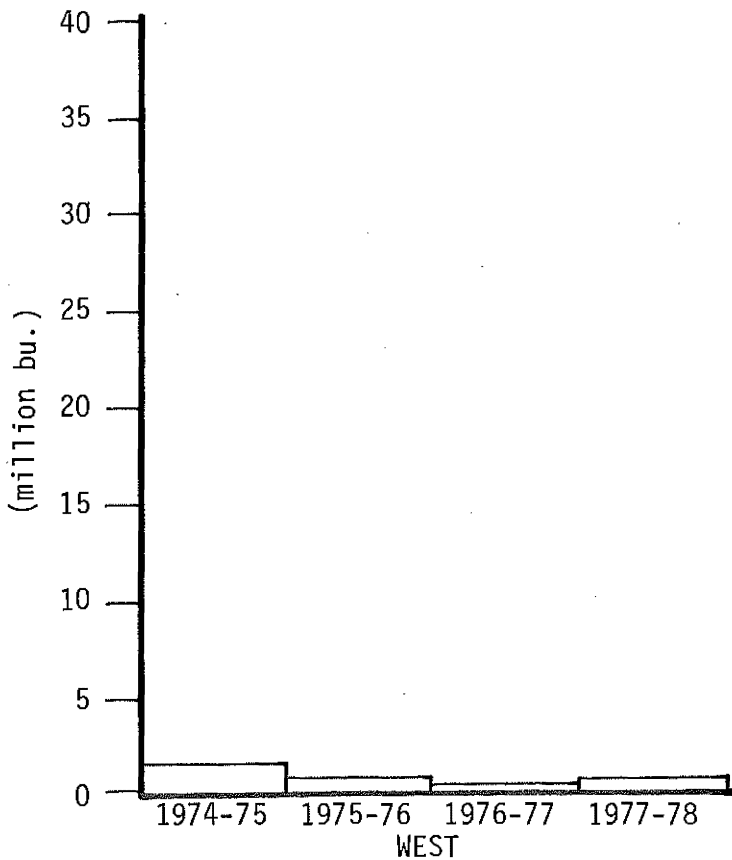
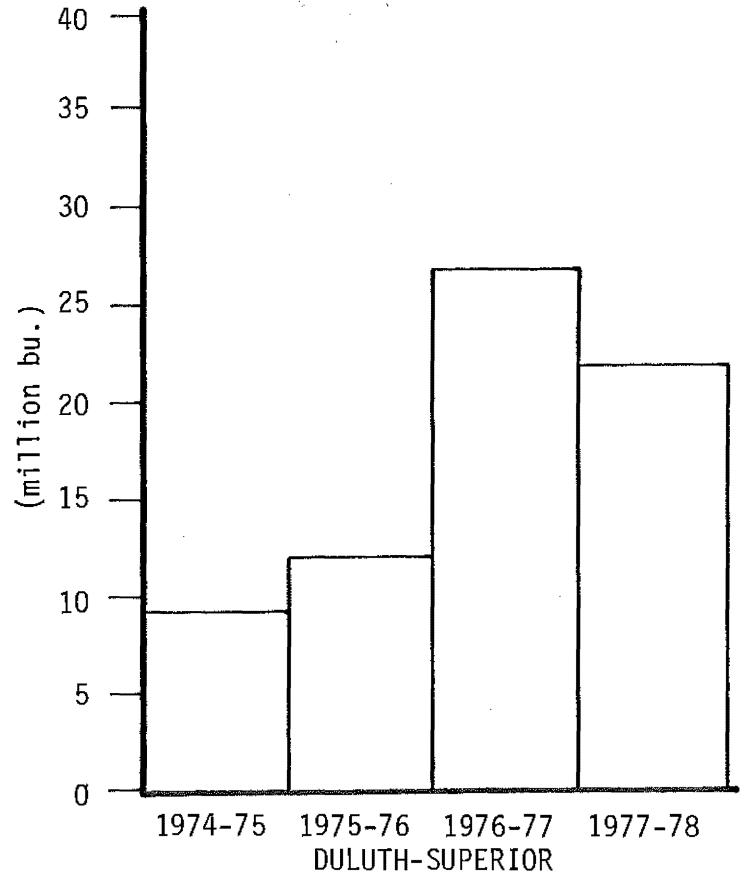
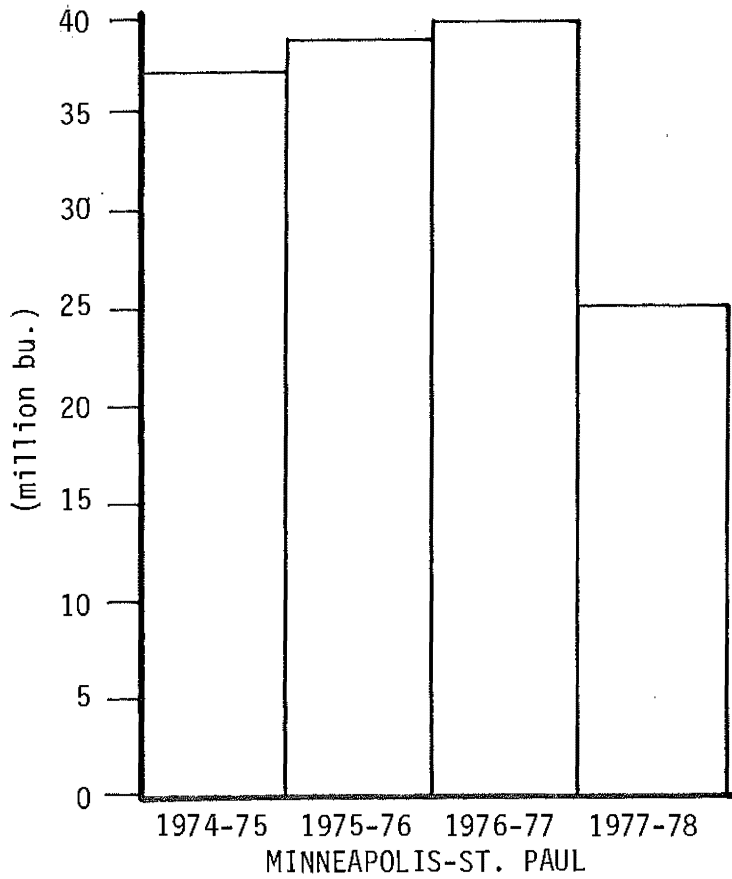


**BARLEY
MOVEMENTS**

NORTH DAKOTA BARLEY SHIPMENTS
BY DESTINATION

| DESTINATION | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|-----------------------|------------------|------------------|------------------|------------------|
| | (thousand bu.) | | | |
| MINNEAPOLIS-ST. PAUL | 37,461 (66%) | 38,710 (69%) | 39,728 (54%) | 25,006 (40%) |
| DULUTH-SUPERIOR | 9,204 (16%) | 12,346 (22%) | 26,672 (36%) | 22,394 (35%) |
| WEST | 1,652 (3%) | 893 (2%) | 126 (1%) | 792 (1%) |
| MISCELLANEOUS MARKETS | 8,360 (15%) | 4,405 (8%) | 6,788 (9%) | 14,923 (24%) |
| TOTAL | 56,677 (100%) | 56,354 (100%) | 73,314 (100%) | 63,115 (100%) |

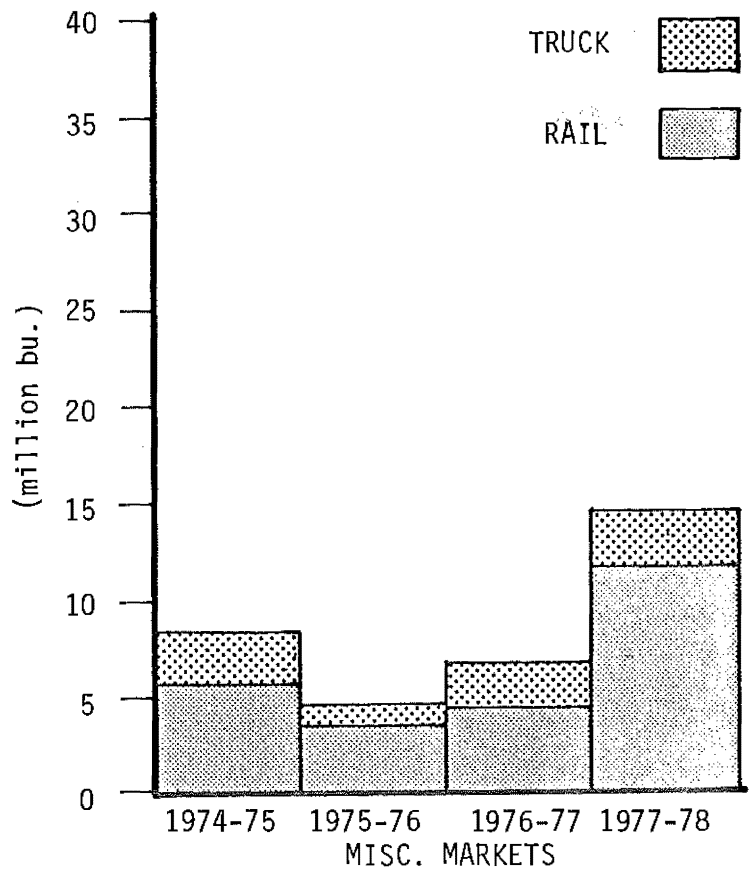
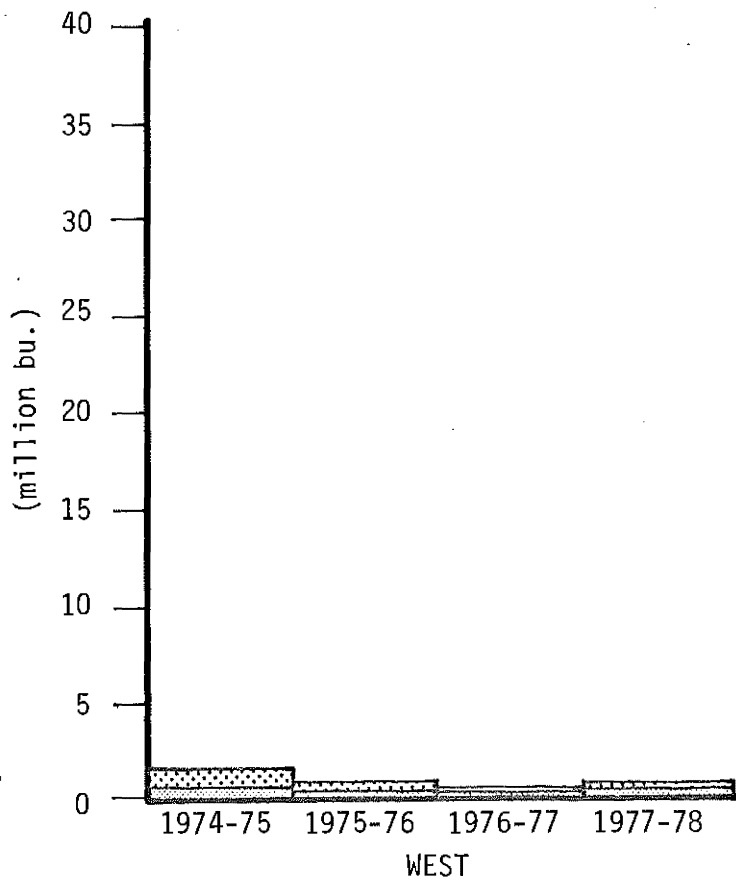
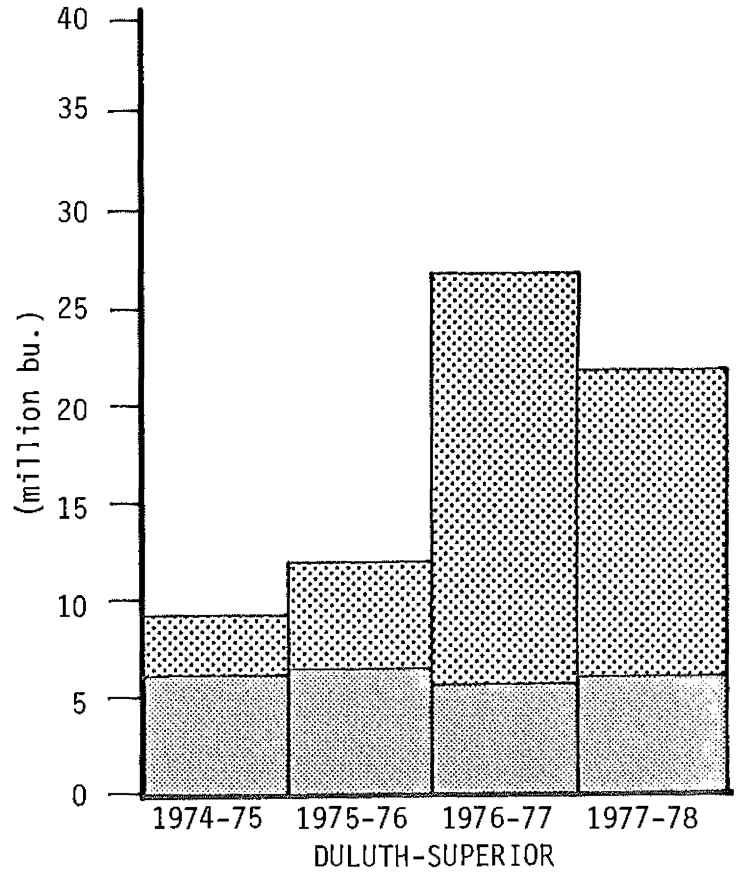
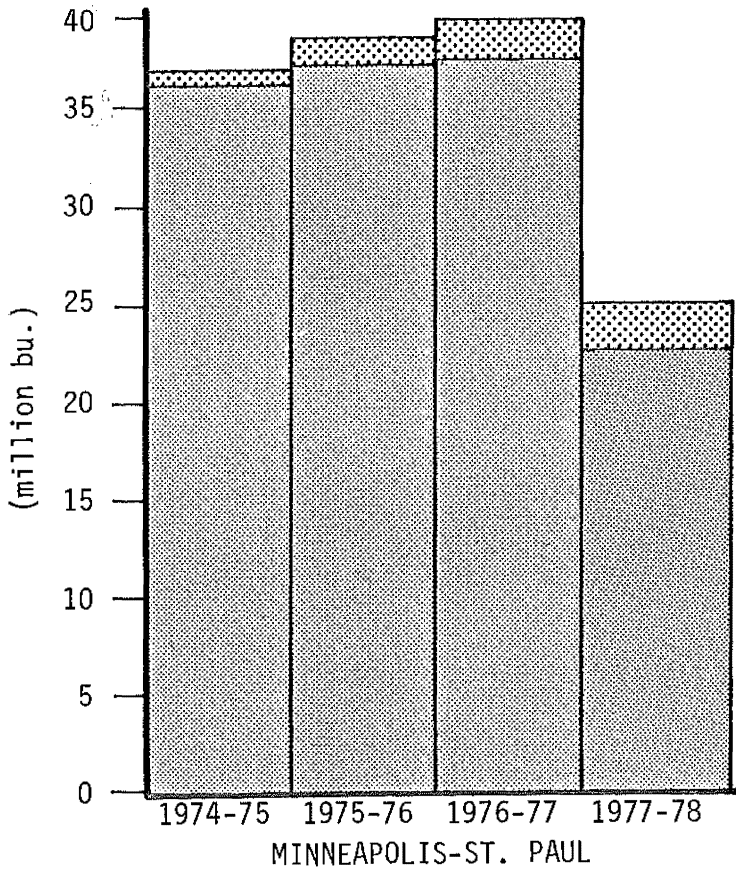
NORTH DAKOTA BARLEY SHIPMENTS
BY DESTINATION



NORTH DAKOTA BARLEY SHIPMENTS BY RAIL AND TRUCK AND DESTINATION

| DESTINATION | 1974-75 | | 1975-76 | | 1976-77 | | 1977-78 | |
|-------------------|-----------------|----------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|
| | Rail | Truck | Rail | Truck | Rail | Truck | Rail | Truck |
| | (thousand bu.) | | | | | | | |
| MINN. - ST. PAUL | 36,783 (98%) | 678 (2%) | 37,566 (97%) | 1,144 (3%) | 37,974 (96%) | 1,753 (4%) | 23,111 (92%) | 1,895 (8%) |
| DULUTH - SUPERIOR | 6,235 (68%) | 2,969 (32%) | 6,331 (51%) | 6,015 (49%) | 5,792 (22%) | 20,880 (78%) | 6,145 (27%) | 16,249 (73%) |
| WEST | 646 (39%) | 1,006 (61%) | 128 (14%) | 765 (86%) | 74 (58%) | 52 (42%) | 323 (41%) | 469 (59%) |
| MISC. MARKETS | 5,607 (67%) | 2,753 (33%) | 3,411 (77%) | 994 (23%) | 4,329 (64%) | 2,459 (36%) | 11,583 (88%) | 3,340 (22%) |
| TOTAL | 49,271 (87%) | 7,406 (23%) | 47,436 (84%) | 8,918 (16%) | 48,169 (66%) | 25,144 (34%) | 41,162 (65%) | 21,953 (35%) |

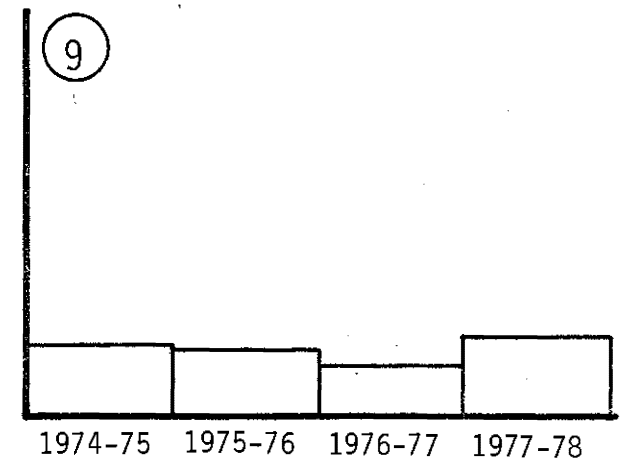
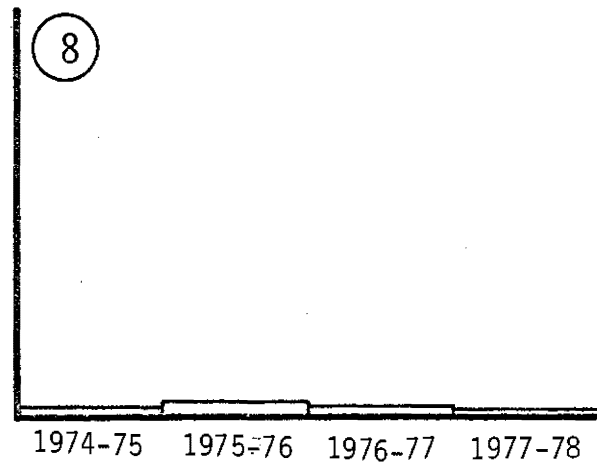
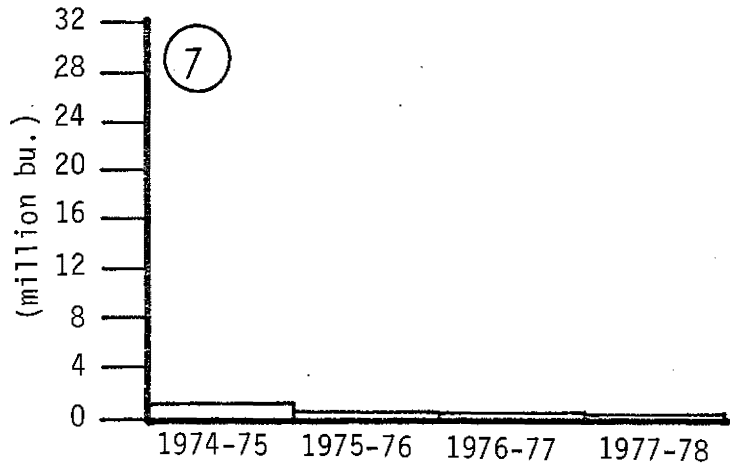
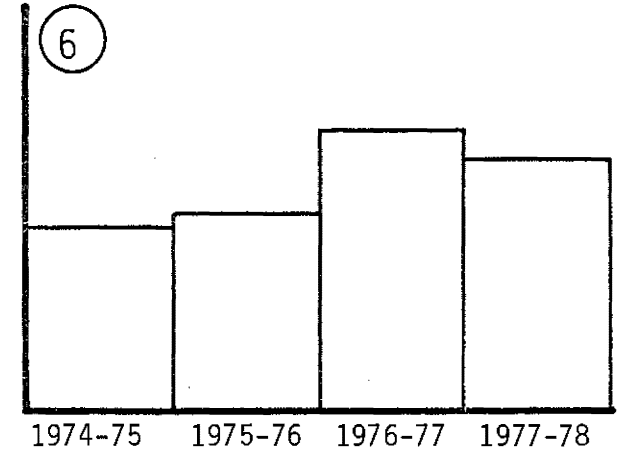
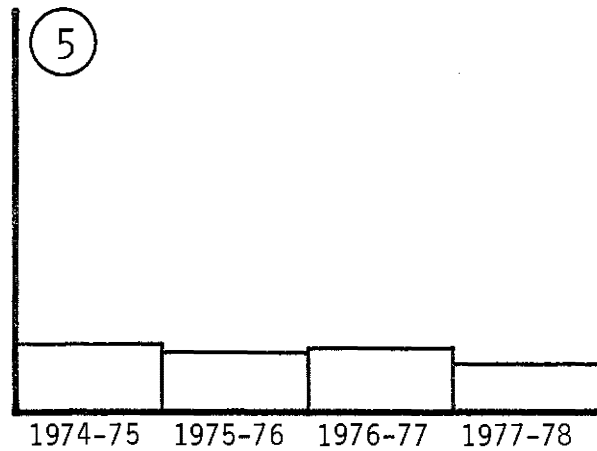
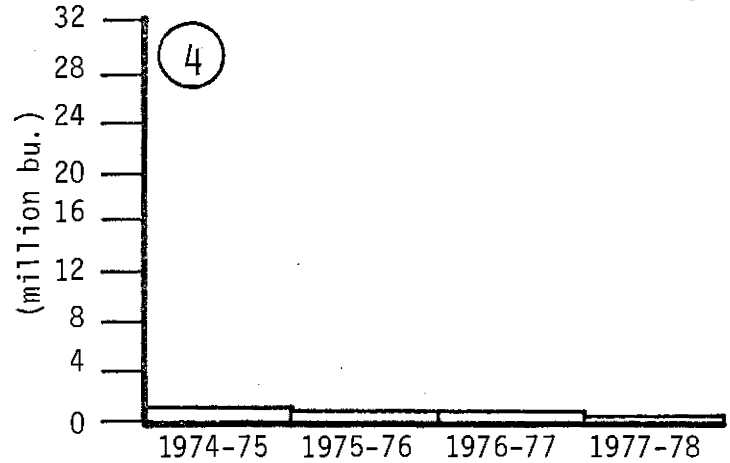
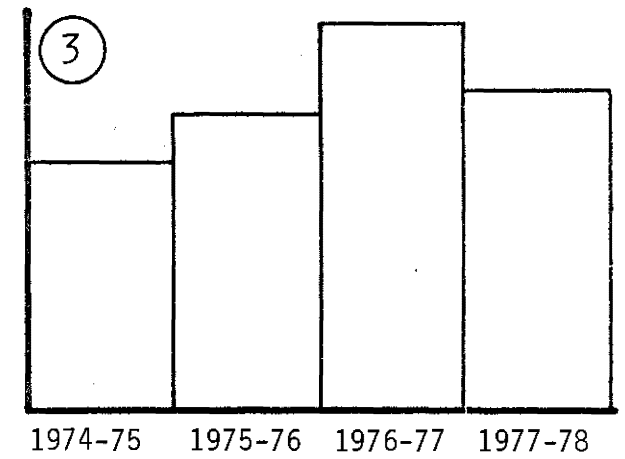
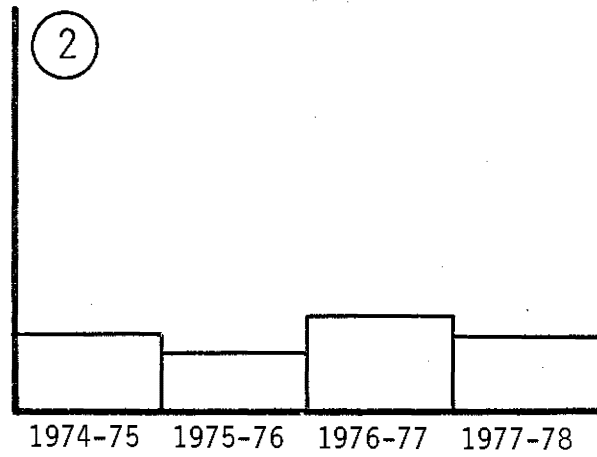
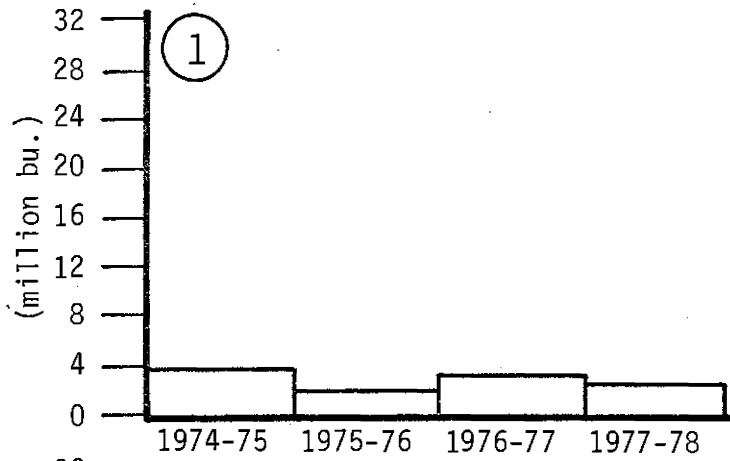
NORTH DAKOTA BARLEY SHIPMENTS
BY RAIL AND TRUCK AND DESTINATION



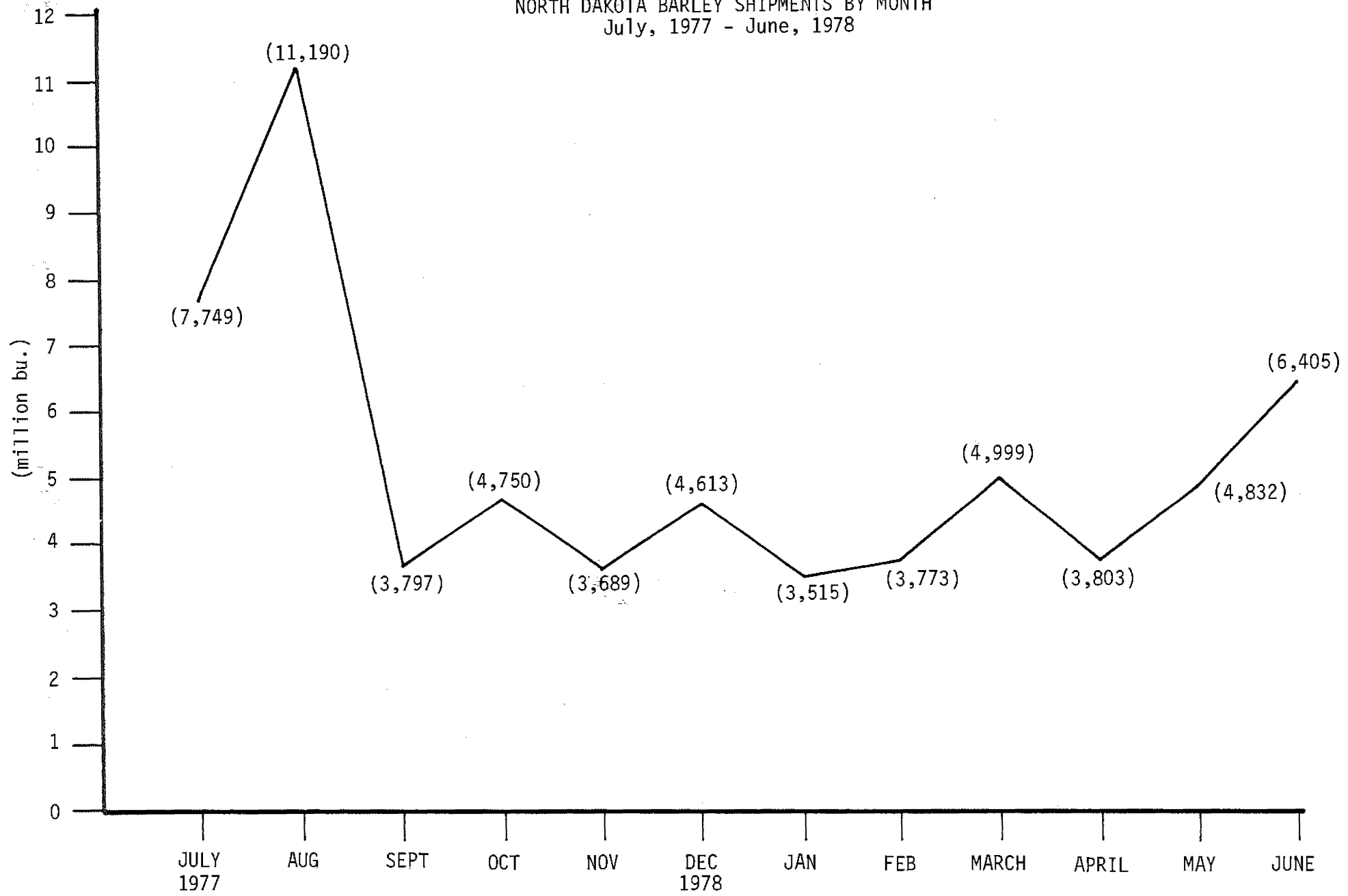
NORTH DAKOTA BARLEY SHIPMENTS
BY ORIGIN
(CROP REPORTING DISTRICT)

| CROP REPORTING DISTRICT | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|----------------------------|----------------|---------|---------|---------|
| | (thousand bu.) | | | |
| 1 | 3,813 | 2,183 | 3,229 | 2,502 |
| 2 | 6,023 | 4,621 | 7,761 | 5,220 |
| 3 | 19,947 | 23,698 | 30,727 | 25,417 |
| 4 | 462 | 339 | 345 | 175 |
| 5 | 5,321 | 4,439 | 4,773 | 3,682 |
| 6 | 14,602 | 15,619 | 22,440 | 20,258 |
| 7 | 1,075 | 386 | 300 | 94 |
| 8 | 136 | 342 | 237 | 20 |
| 9 | 5,294 | 4,728 | 3,501 | 5,747 |
| TOTAL | 56,673 | 56,355 | 73,313 | 63,115 |

NORTH DAKOTA BARLEY SHIPMENTS BY ORIGIN
(CROP REPORTING DISTRICT)



NORTH DAKOTA BARLEY SHIPMENTS BY MONTH
July, 1977 - June, 1978

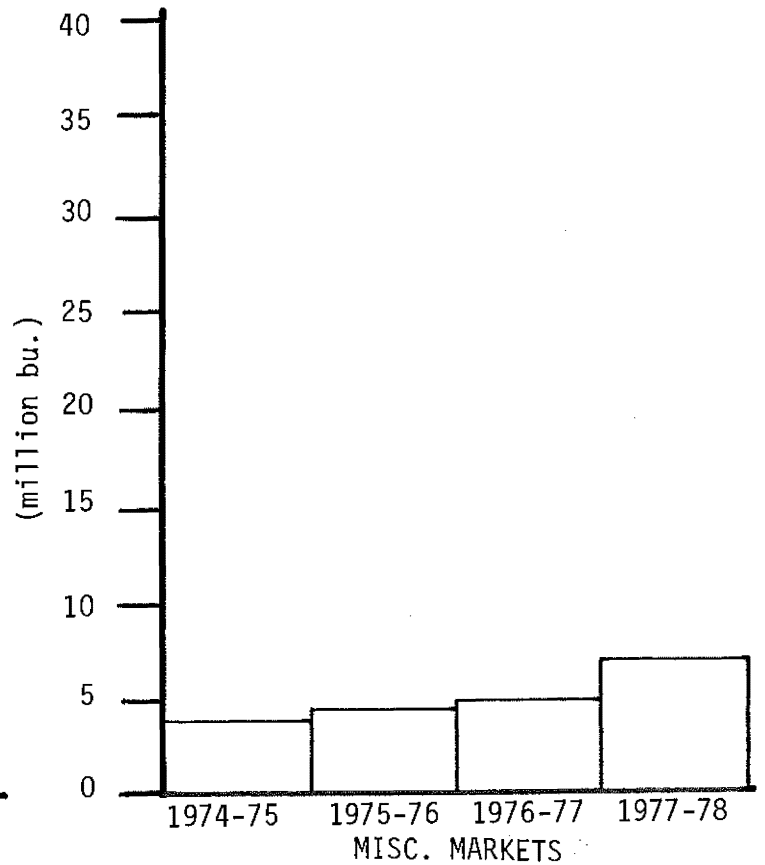
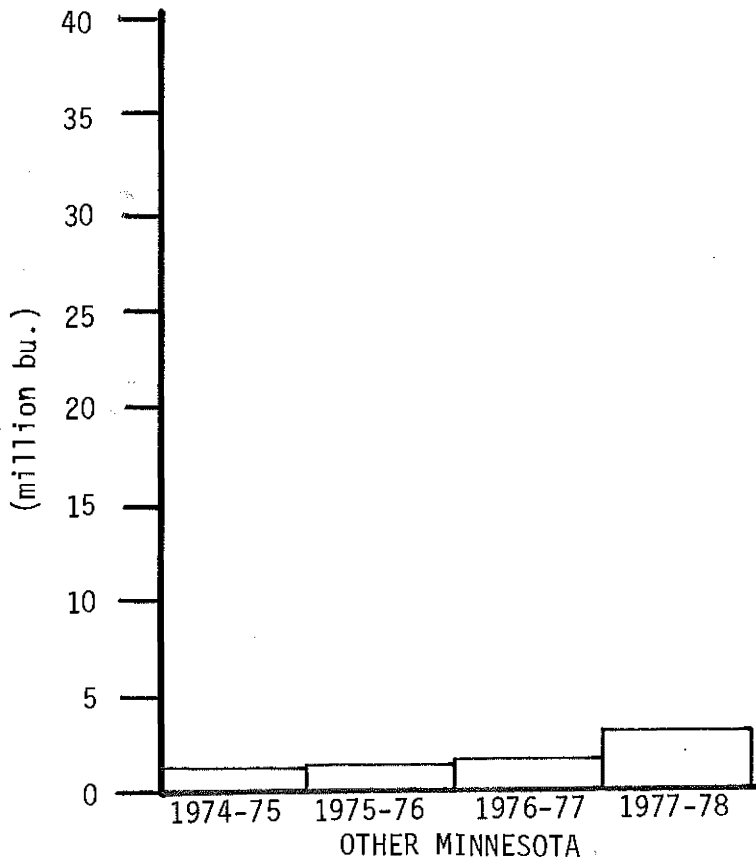
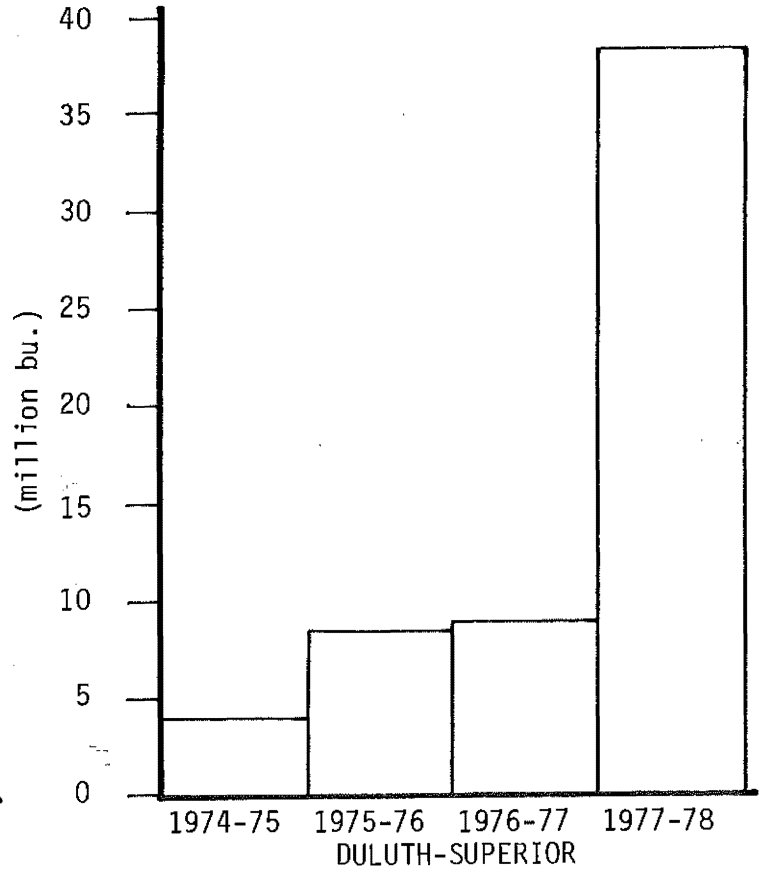
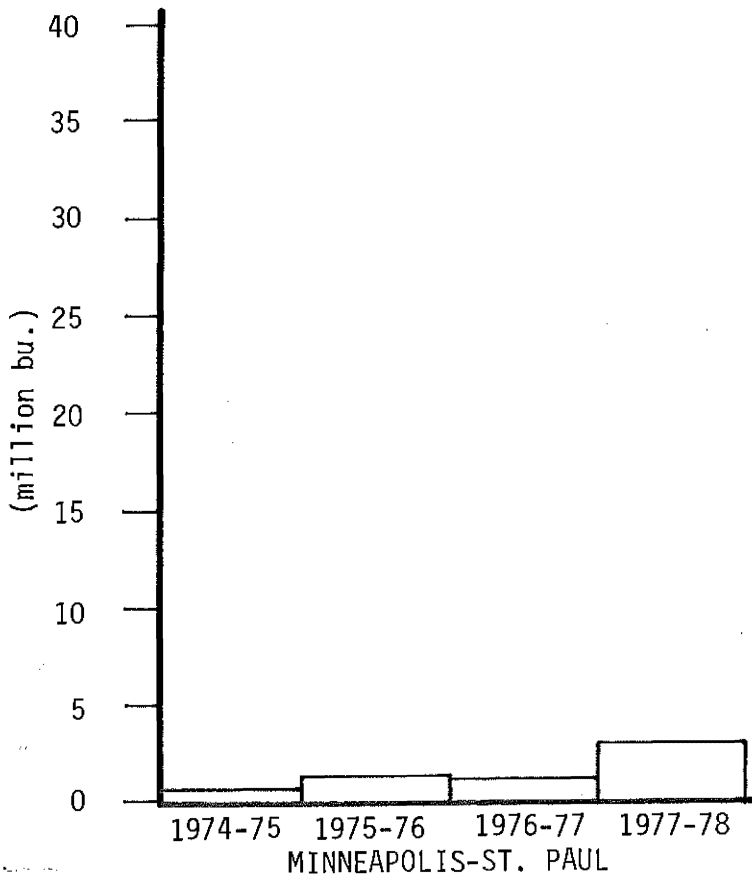


**SUNFLOWER SEED
MOVEMENTS**

NORTH DAKOTA SUNFLOWER SEED SHIPMENTS BY DESTINATION

| DESTINATION | 1974 - 75 | 1975 - 76 | 1976 - 77 | 1977 - 78 |
|------------------------|-----------------|------------------|------------------|------------------|
| | (thousand bu.) | | | |
| MINNEAPOLIS - ST. PAUL | 401 (4%) | 1,158 (8%) | 863 (6%) | 2,992 (6%) |
| DULUTH - SUPERIOR | 3,932 (44%) | 8,083 (56%) | 8,693 (56%) | 38,019 (74%) |
| OTHER MINNESOTA | 1,075 (12%) | 1,147 (8%) | 1,369 (9%) | 3,220 (6%) |
| MISC. MARKETS | 3,605 (40%) | 4,166 (27%) | 4,697 (30%) | 7,047 (14%) |
| TOTAL | 9,013 (100%) | 14,554 (100%) | 15,622 (100%) | 51,278 (100%) |

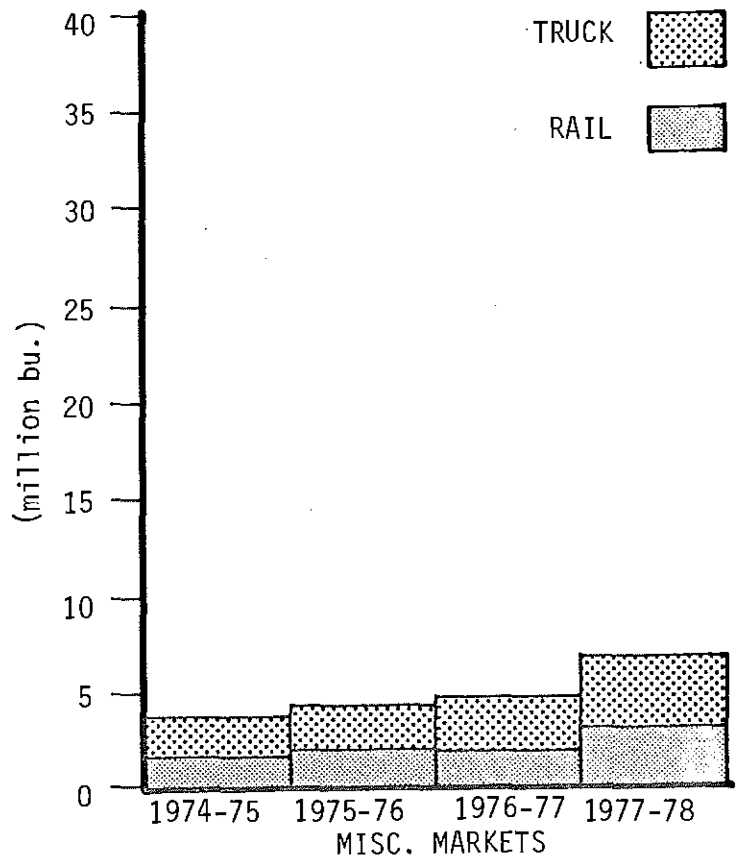
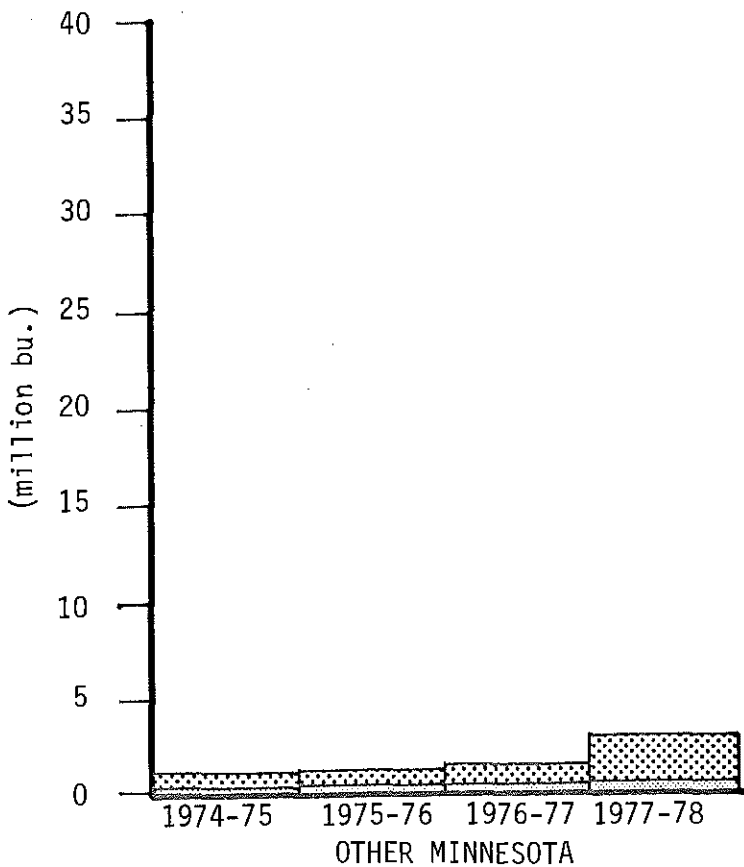
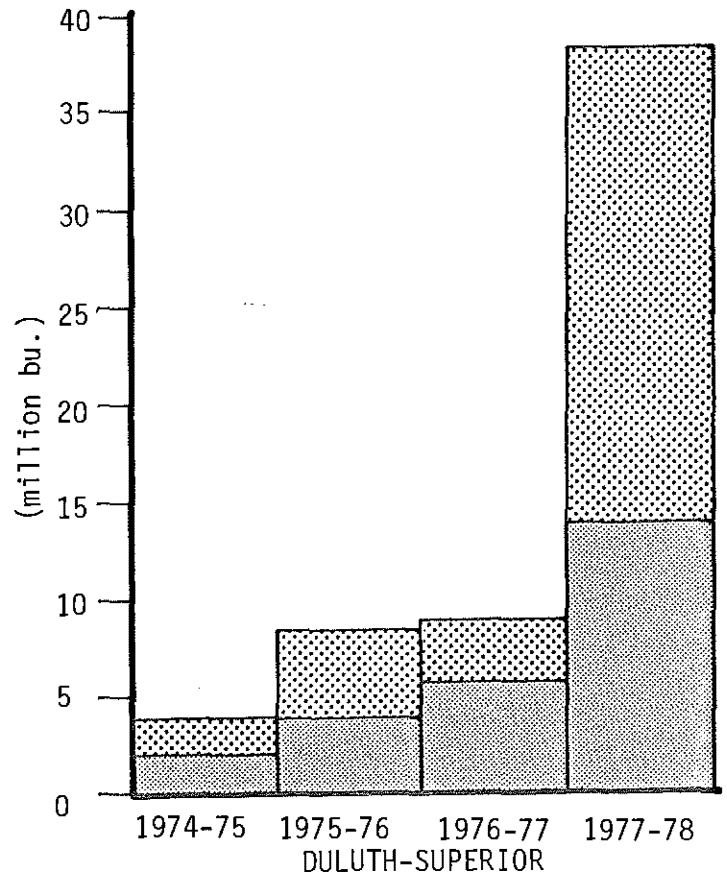
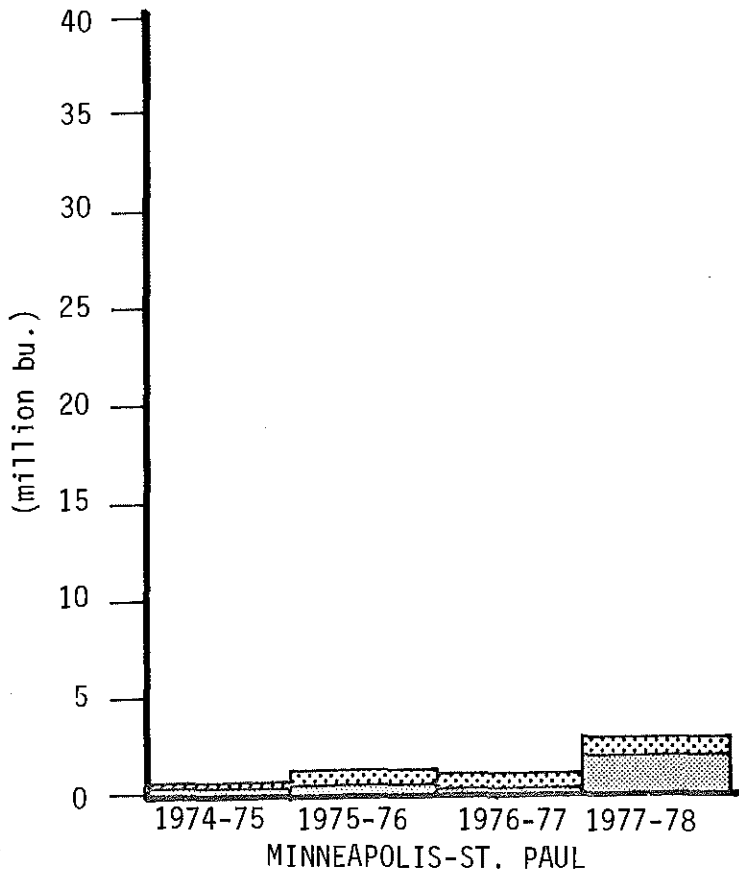
NORTH DAKOTA SUNFLOWER SEED SHIPMENTS
BY DESTINATION



NORTH DAKOTA SUNFLOWER SEED SHIPMENTS BY RAIL AND TRUCK AND DESTINATION

| DESTINATION | 1974-75 | | 1975-76 | | 1976-77 | | 1977-78 | |
|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|
| | Rail | Truck | Rail | Truck | Rail | Truck | Rail | Truck |
| | (thousand bu.) | | | | | | | |
| MINNEAPOLIS - ST. PAUL | 190 (47%) | 211 (53%) | 510 (44%) | 647 (56%) | 700 (81%) | 163 (19%) | 770 (26%) | 2,223 (74%) |
| DULUTH - SUPERIOR | 2,271 (58%) | 1,661 (42%) | 4,155 (51%) | 3,928 (49%) | 5,598 (64%) | 3,095 (36%) | 14,820 (39%) | 23,199 (61%) |
| OTHER MINNESOTA | 232 (22%) | 843 (78%) | 279 (24%) | 868 (76%) | 256 (19%) | 1,114 (81%) | 367 (11%) | 2,853 (89%) |
| MISC. MARKETS | 1,646 (46%) | 1,959 (54%) | 1,947 (47%) | 2,220 (53%) | 1,966 (42%) | 2,730 (58%) | 3,154 (42%) | 4,433 (58%) |
| TOTAL | 4,339 (48%) | 4,674 (52%) | 6,891 (47%) | 7,663 (53%) | 8,520 (55%) | 7,102 (45%) | 19,111 (37%) | 32,708 (63%) |

NORTH DAKOTA SUNFLOWER SEED SHIPMENTS
BY RAIL AND TRUCK AND DESTINATION

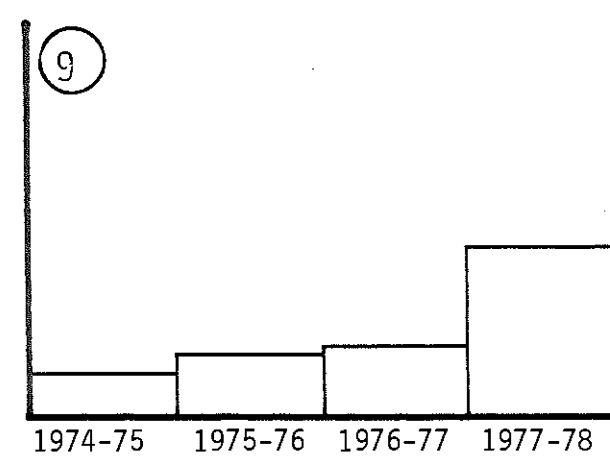
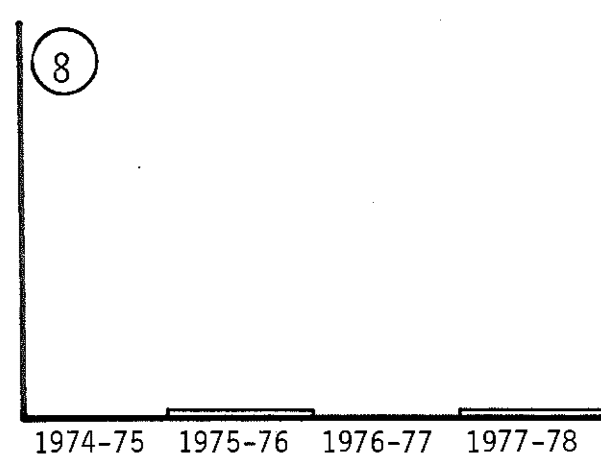
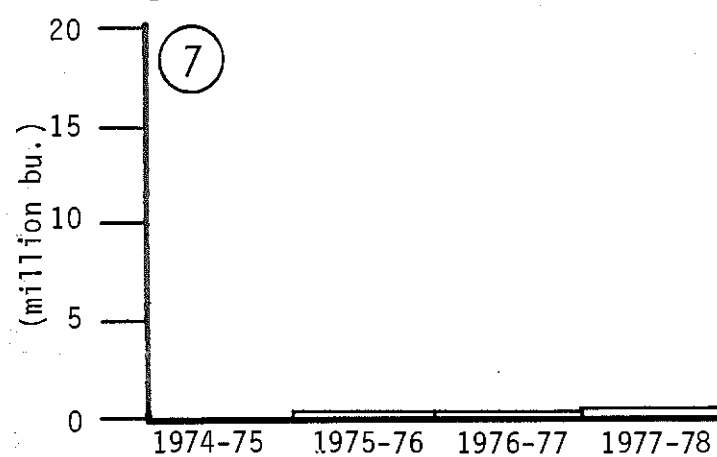
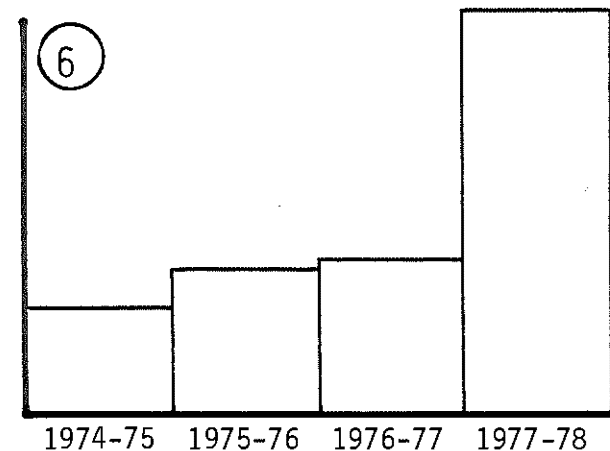
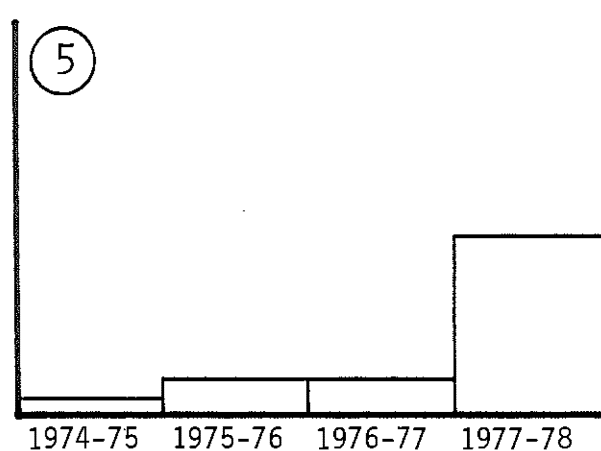
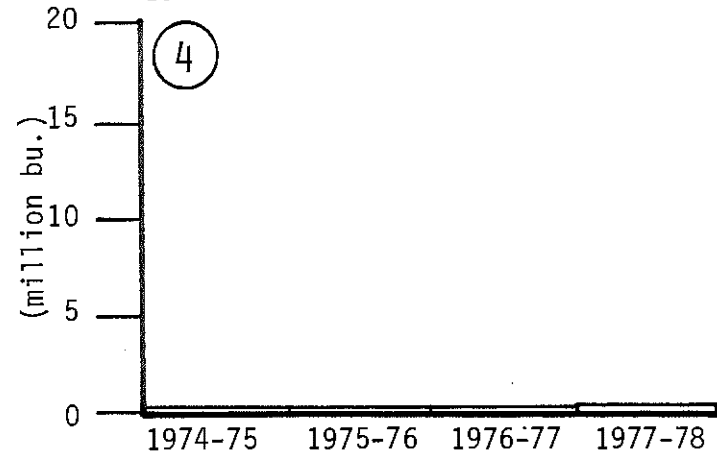
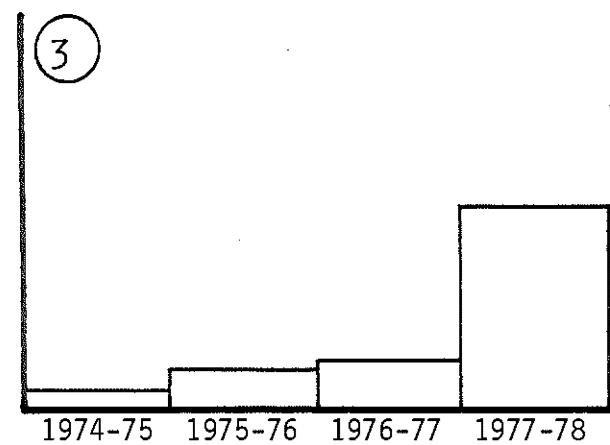
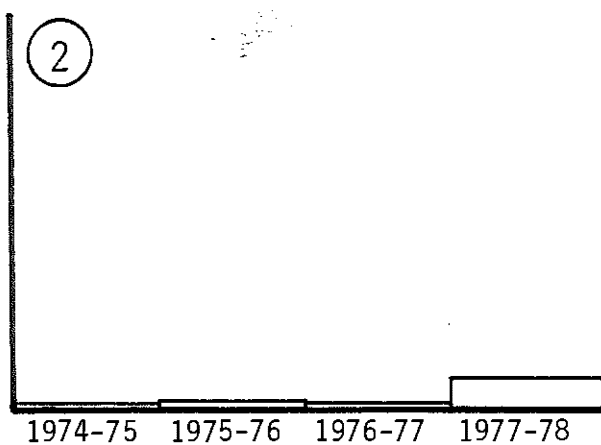
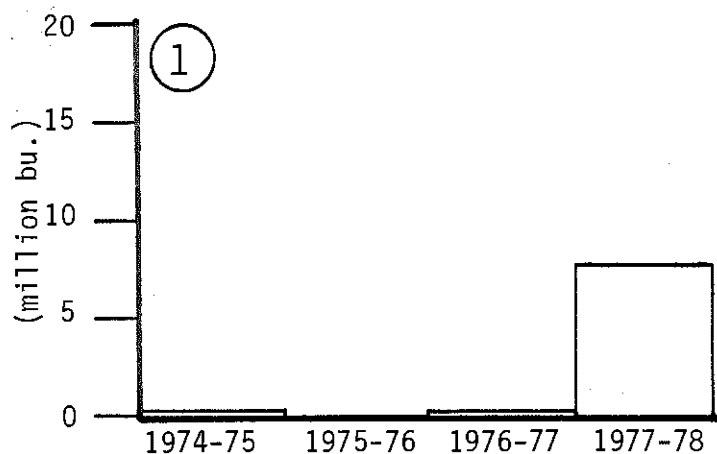


NORTH DAKOTA SUNFLOWER SEED SHIPMENTS BY ORIGIN

(CROP REPORTING DISTRICT)

| CROP REPORTING DISTRICT | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|-------------------------|----------------|---------|---------|---------|
| | (thousand bu.) | | | |
| 1 | 15 | 0 | 7 | 771 |
| 2 | 2 | 71 | 26 | 1,267 |
| 3 | 791 | 1,853 | 2,184 | 10,469 |
| 4 | 4 | 9 | 20 | 179 |
| 5 | 470 | 1,772 | 1,788 | 9,087 |
| 6 | 5,464 | 7,441 | 7,861 | 10,710 |
| 7 | 0 | 2 | 25 | 225 |
| 8 | 0 | 7 | 0 | 129 |
| 9 | 2,267 | 3,399 | 3,711 | 8,442 |
| Total | 9,013 | 14,554 | 15,622 | 41,279 |

NORTH DAKOTA SUNFLOWER SEED SHIPMENTS BY ORIGIN
(CROP REPORTING DISTRICT)

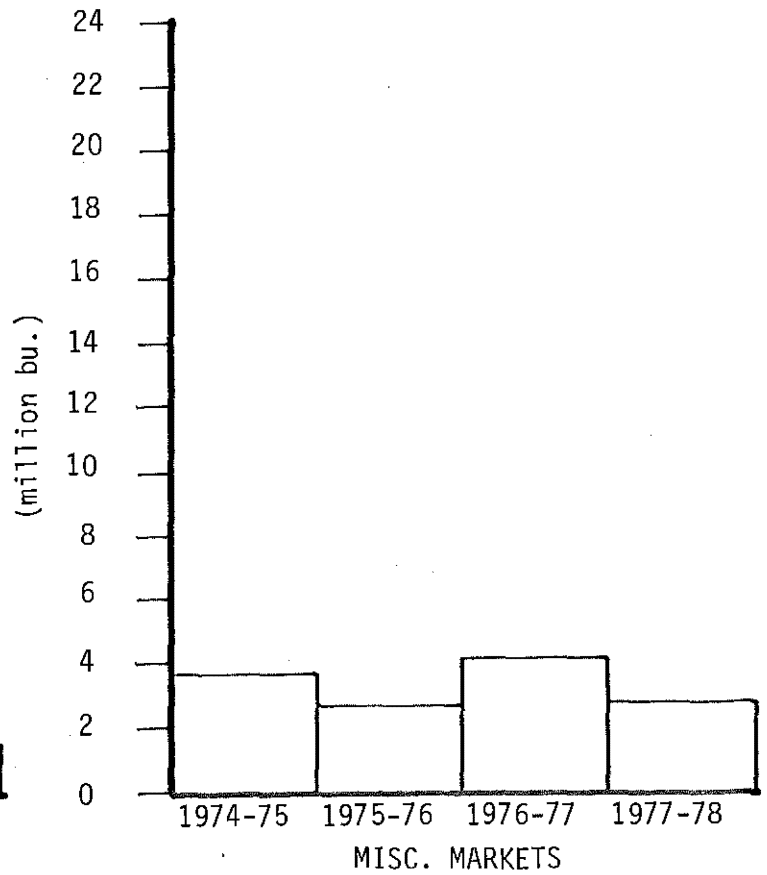
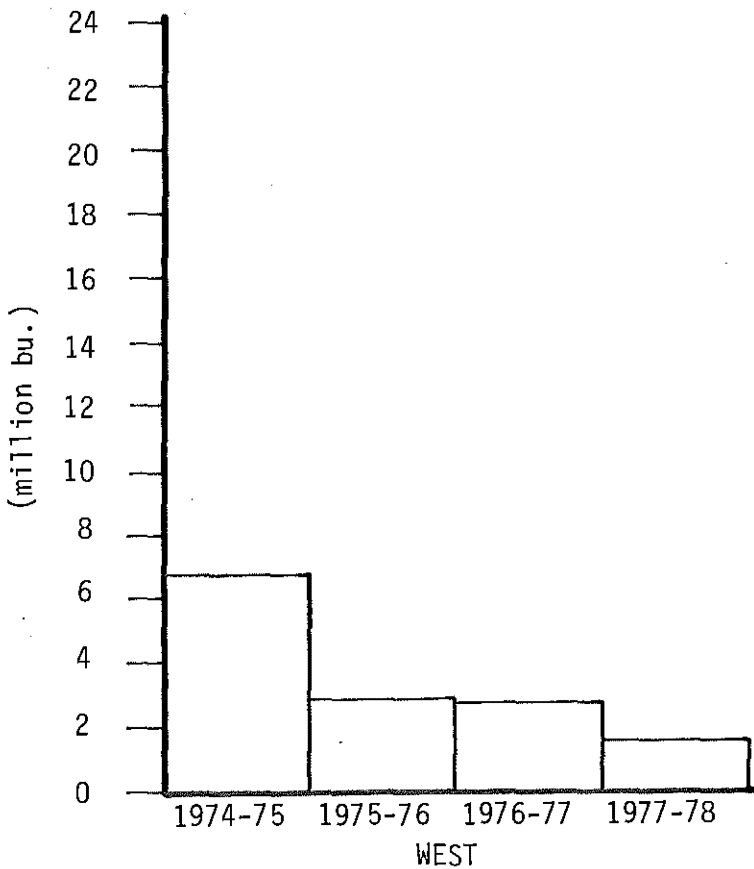
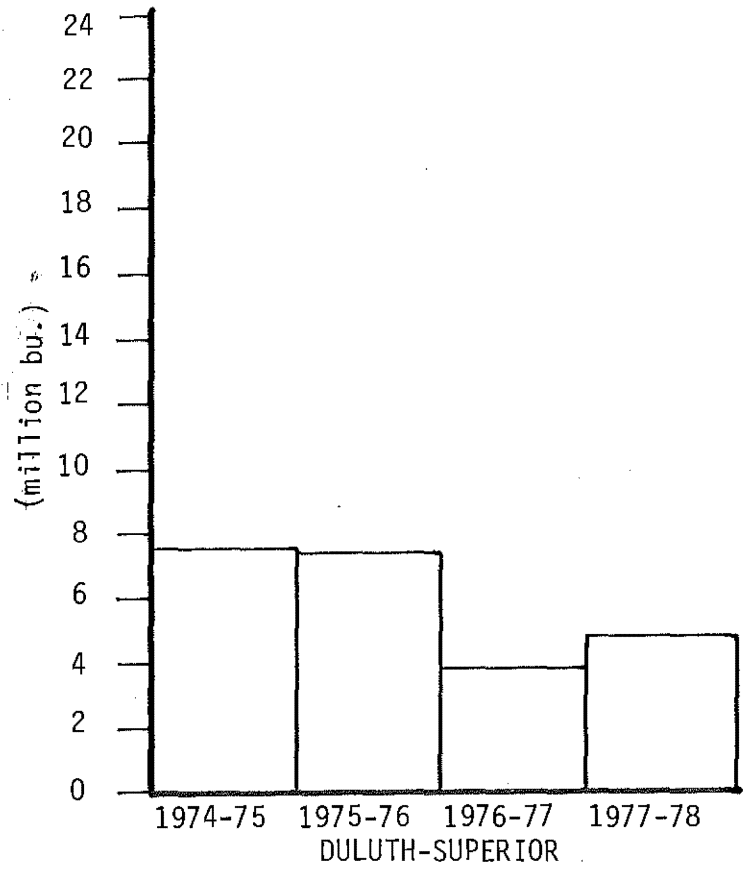
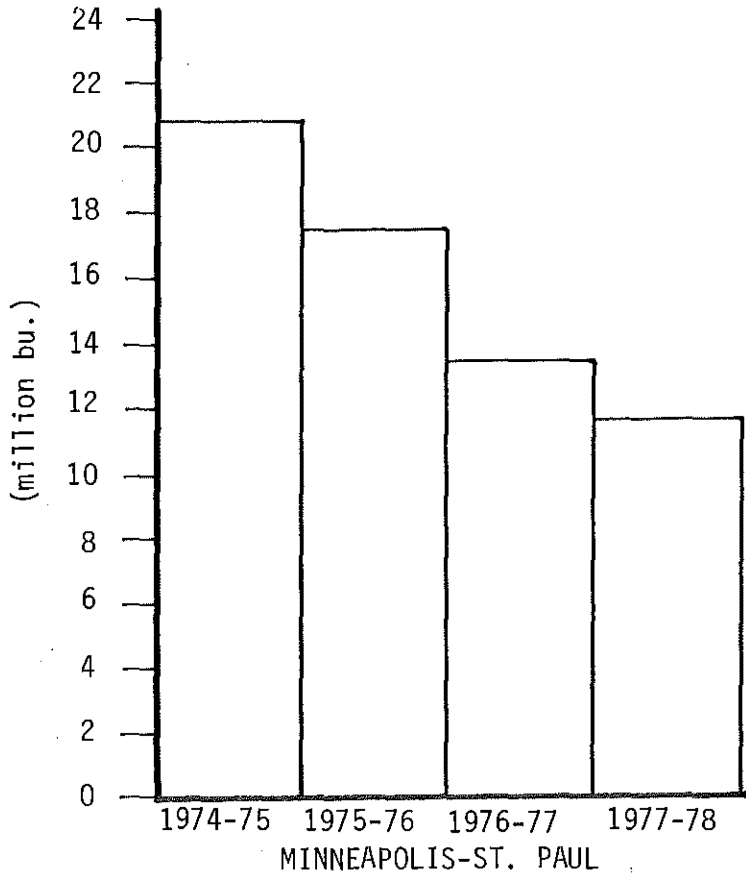


**OATS
MOVEMENTS**

NORTH DAKOTA OATS SHIPMENTS
BY DESTINATION

| DESTINATION | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|------------------------|------------------|------------------|------------------|------------------|
| | (thousand bu.) | | | |
| MINNEAPOLIS - ST. PAUL | 10,439 (54%) | 8,779 (58%) | 6,769 (56%) | 5,860 (56%) |
| DULUTH - SUPERIOR | 3,752 (19%) | 3,531 (23%) | 1,932 (16%) | 2,385 (23%) |
| WEST | 3,446 (18%) | 1,458 (10%) | 1,427 (12%) | 851 (8%) |
| MISCELLANEOUS MARKETS | 1,825 (9%) | 1,334 (9%) | 2,031 (17%) | 1,396 (13%) |
| TOTAL | 19,462 (100%) | 15,102 (100%) | 12,159 (100%) | 10,492 (100%) |

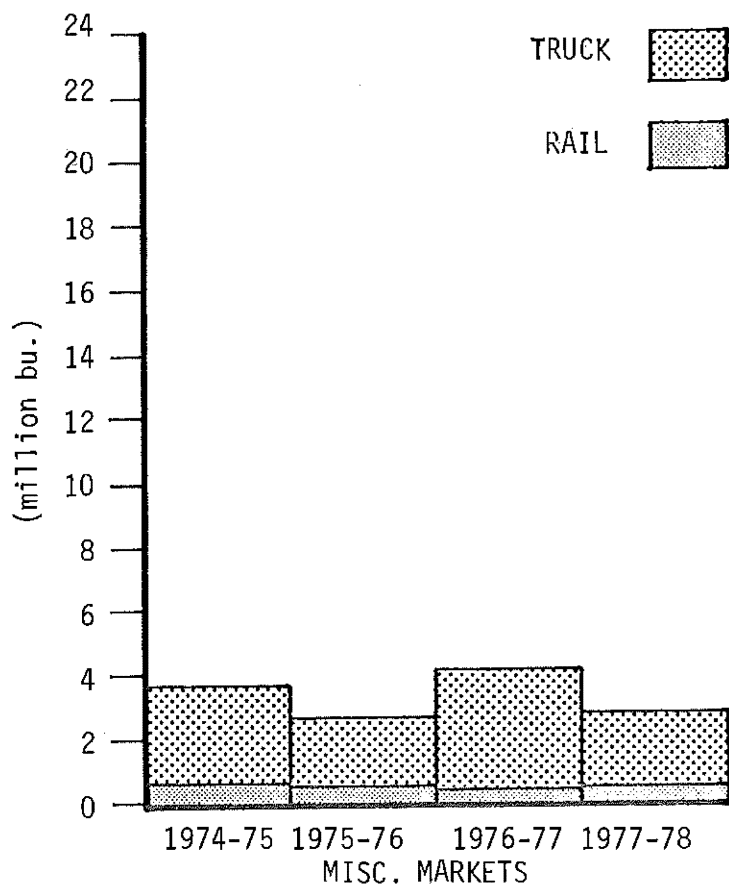
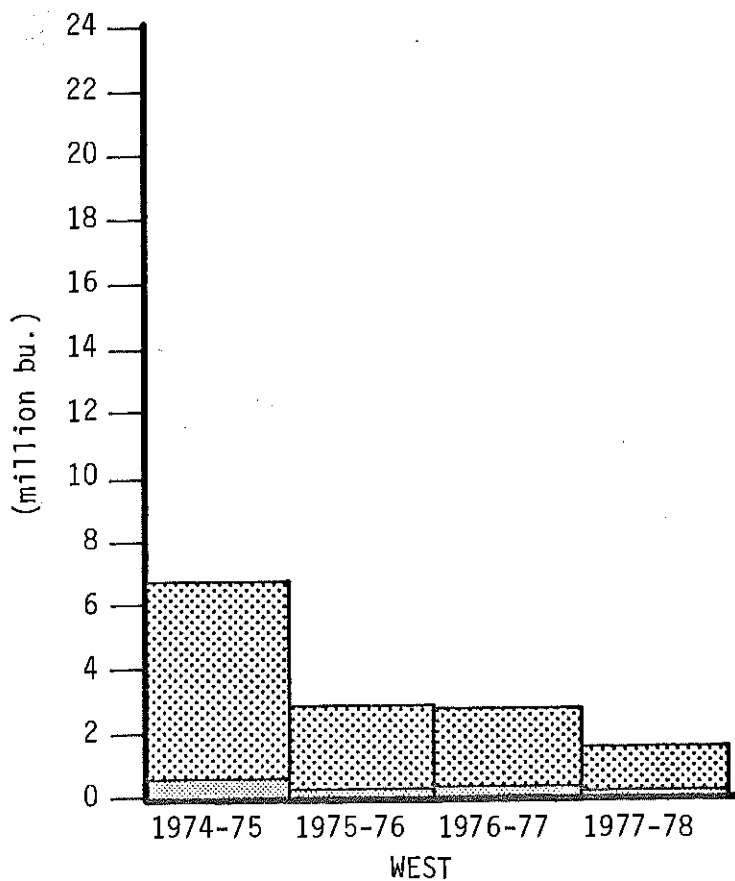
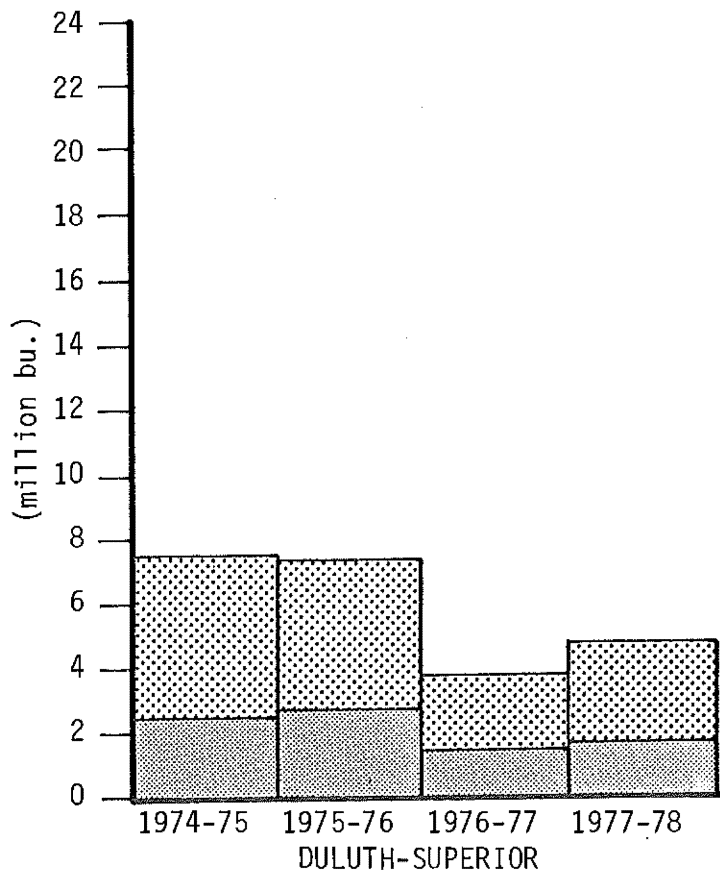
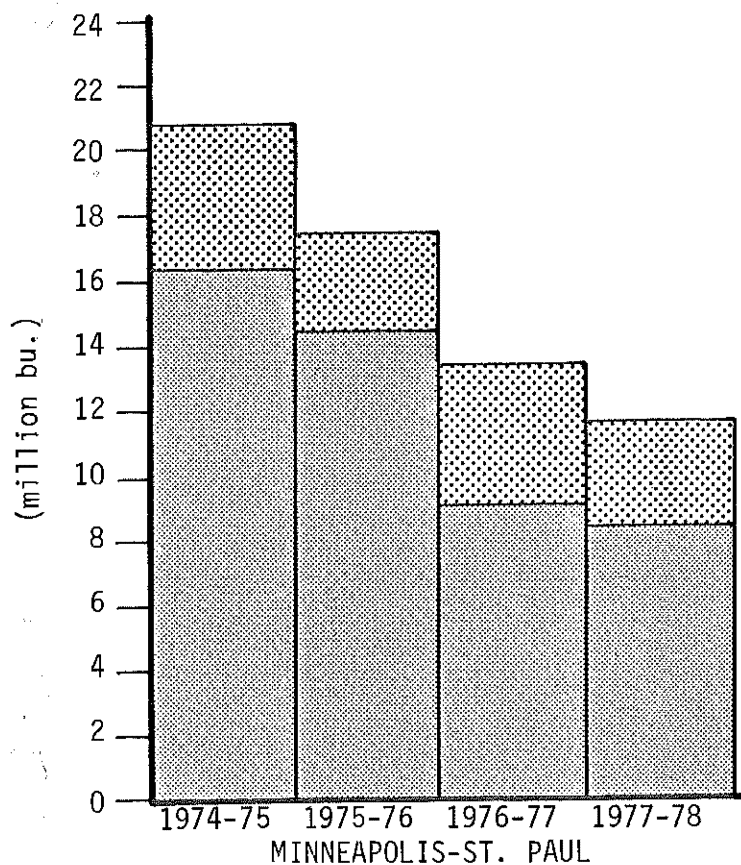
NORTH DAKOTA OATS SHIPMENTS BY DESTINATION



NORTH DAKOTA OATS SHIPMENTS BY RAIL AND TRUCK AND DESTINATION

| DESTINATION | 1974-75 | | 1975-76 | | 1976-77 | | 1977-78 | |
|-----------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | Rail | Truck | Rail | Truck | Rail | Truck | Rail | Truck |
| | (thousand bu.) | | | | | | | |
| MINN.-ST. PAUL | 8,148 (78%) | 2,291 (22%) | 7,300 (83%) | 1,479 (17%) | 4,602 (68%) | 2,166 (32%) | 4,244 (72%) | 1,616 (28%) |
| DULUTH-SUPERIOR | 1,373 (38%) | 2,199 (62%) | 1,442 (41%) | 2,090 (59%) | 761 (39%) | 1,171 (61%) | 869 (36%) | 1,516 (64%) |
| WEST | 319 (9%) | 3,127 (91%) | 92 (6%) | 1,366 (94%) | 121 (8%) | 1,306 (92%) | 12 (1%) | 839 (99%) |
| MISC. MARKETS | 316 (17%) | 1,509 (83%) | 304 (23%) | 1,031 (77%) | 231 (11%) | 1,800 (89%) | 255 (18%) | 1,142 (82%) |
| TOTAL | 10,156 (53%) | 9,126 (47%) | 9,138 (61%) | 5,966 (39%) | 5,715 (47%) | 6,443 (53%) | 5,380 (51%) | 5,113 (49%) |

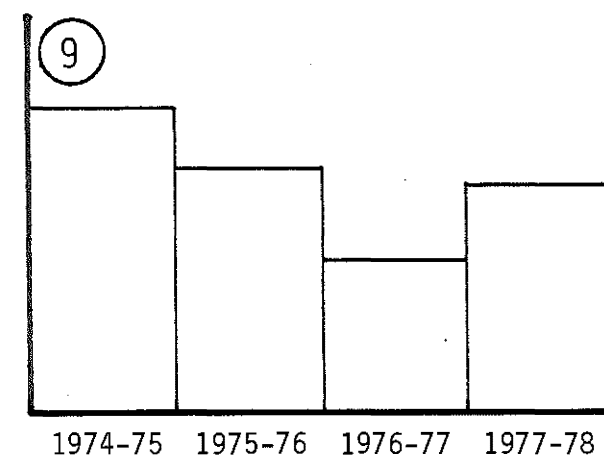
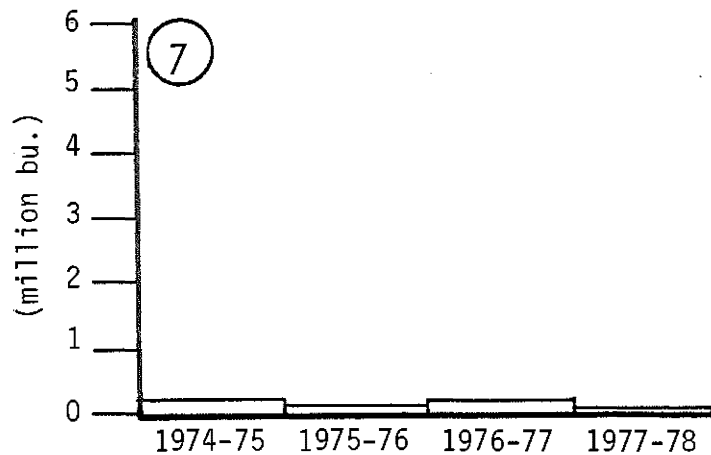
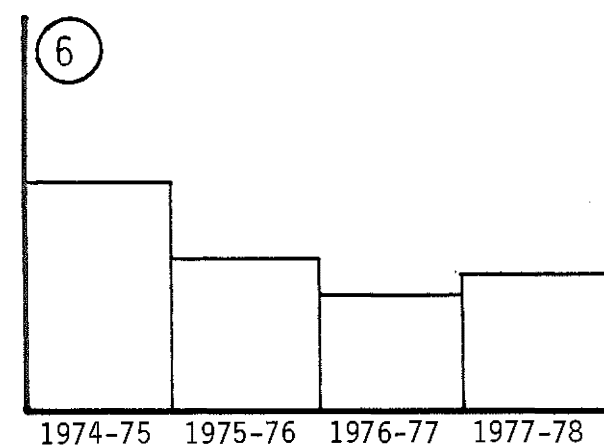
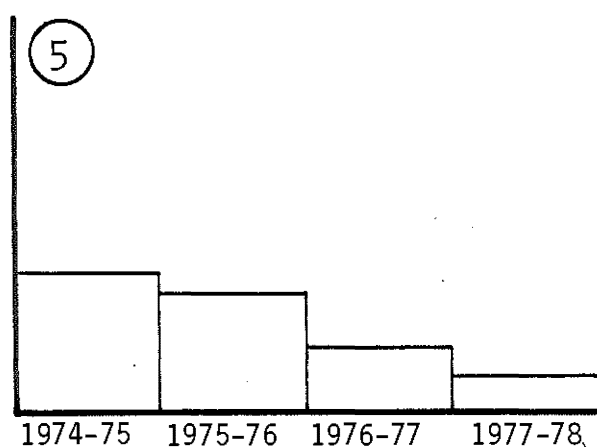
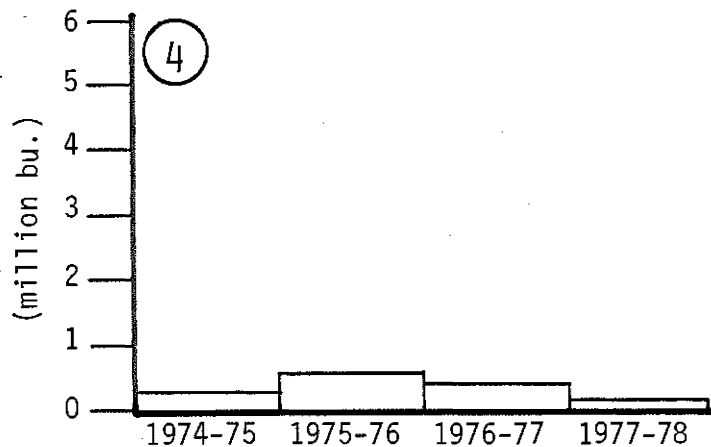
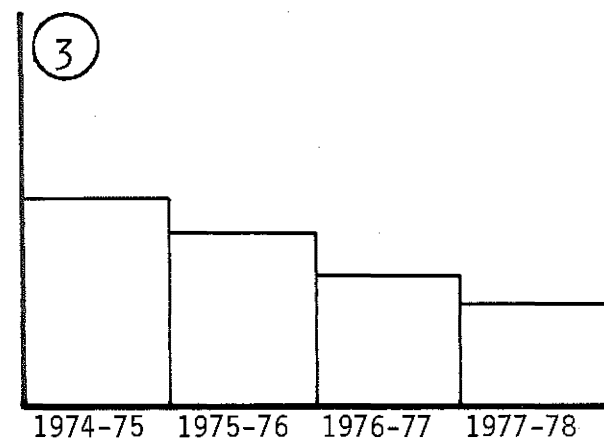
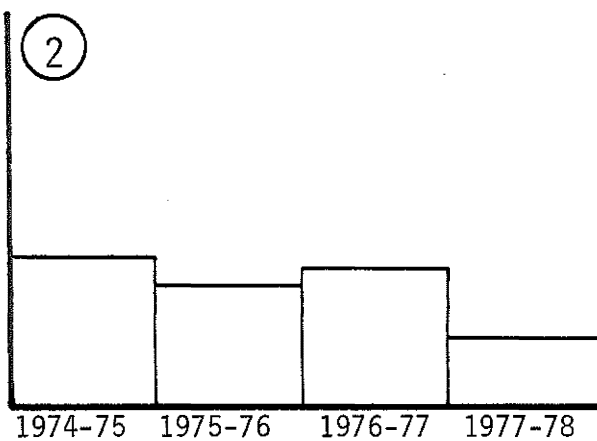
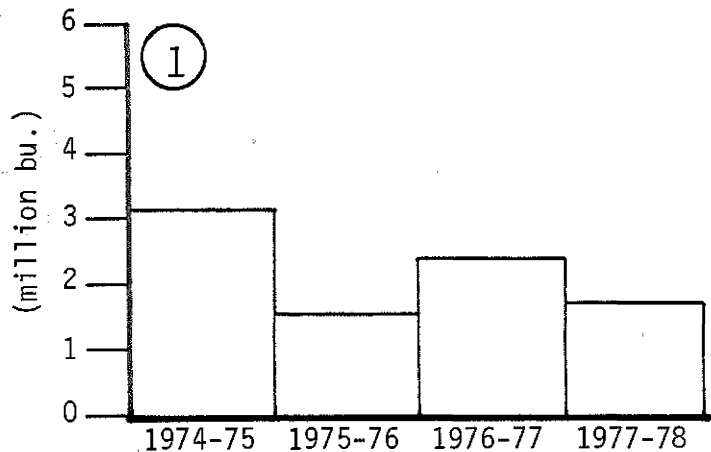
NORTH DAKOTA OATS SHIPMENTS
BY RAIL AND TRUCK AND DESTINATION



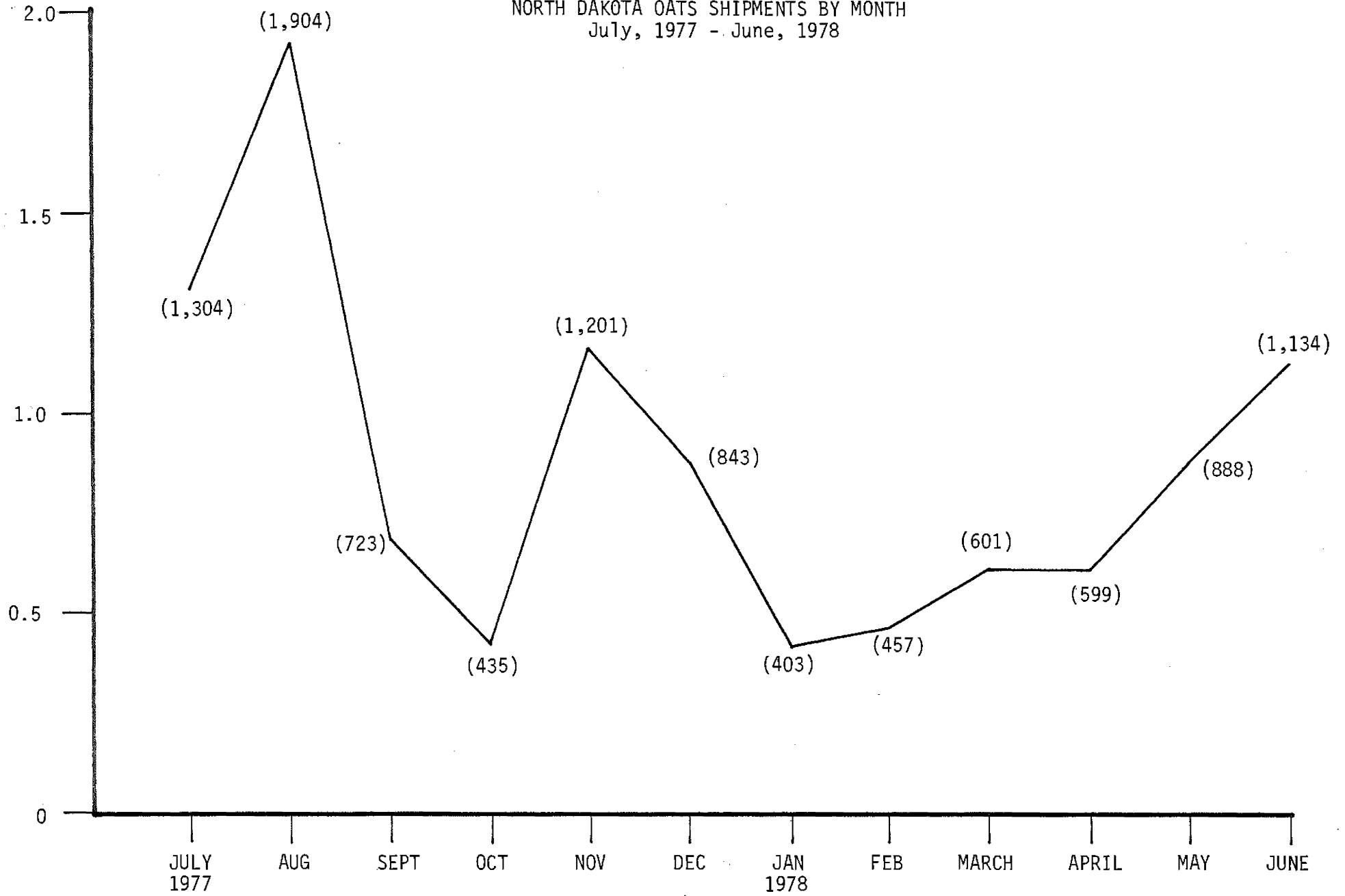
NORTH DAKOTA OATS SHIPMENTS
BY ORIGIN
(CROP REPORTING DISTRICT)

| CROP REPORTING DISTRICT | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|-------------------------|---------|---------|---------|---------|
| 1 | 3,103 | 1,613 | 2,309 | 1,769 |
| 2 | 2,221 | 1,806 | 2,081 | 974 |
| 3 | 3,153 | 2,590 | 1,904 | 1,485 |
| 4 | 283 | 596 | 436 | 137 |
| 5 | 2,095 | 1,757 | 976 | 507 |
| 6 | 3,426 | 2,297 | 1,733 | 2,077 |
| 7 | 266 | 163 | 225 | 47 |
| 8 | 65 | 573 | 226 | 7 |
| 9 | 4,668 | 3,709 | 2,269 | 3,490 |
| TOTAL | 19,280 | 15,104 | 12,159 | 10,493 |

NORTH DAKOTA OATS SHIPMENTS BY ORIGIN
(CROP REPORTING DISTRICT)



NORTH DAKOTA OATS SHIPMENTS BY MONTH
July, 1977 - June, 1978

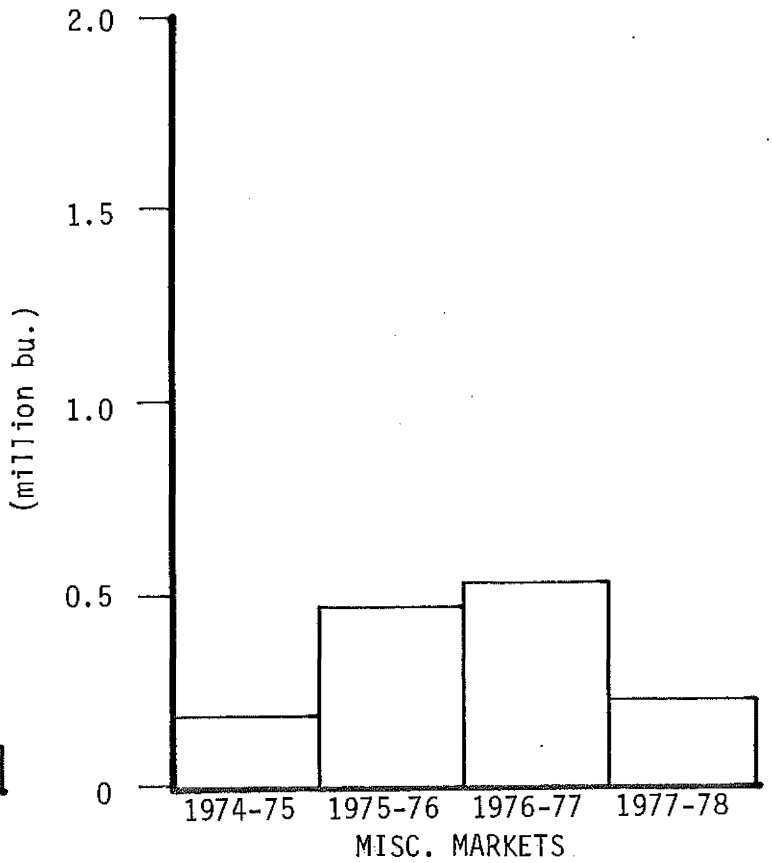
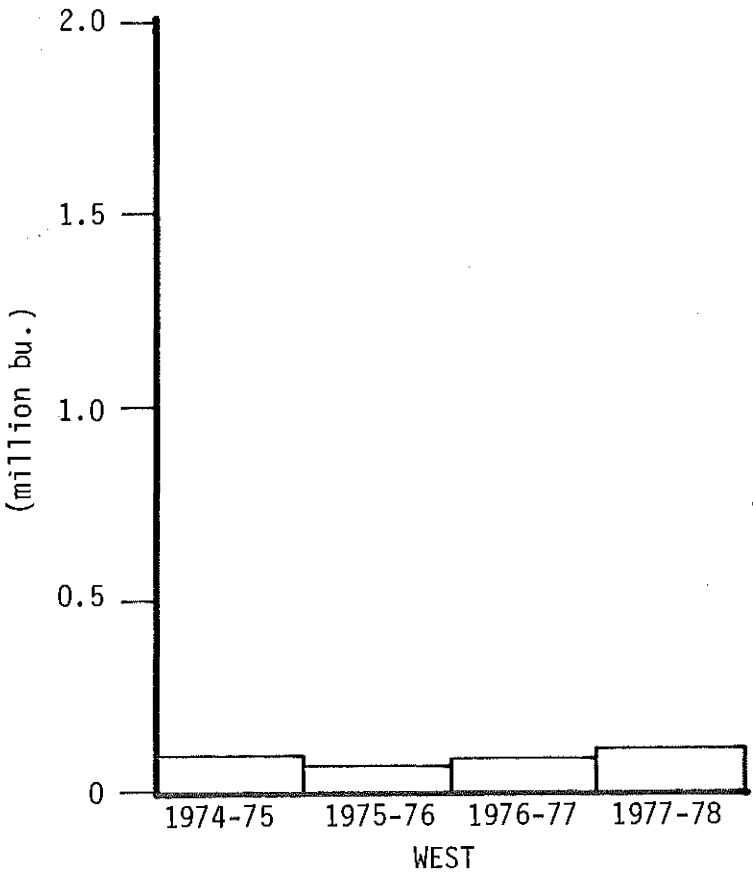
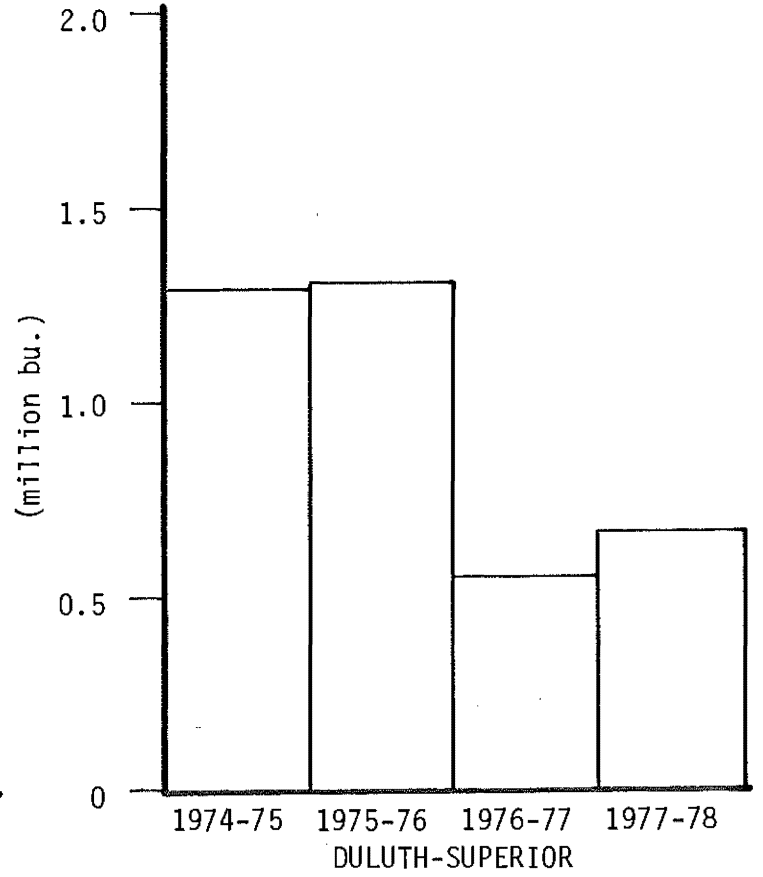
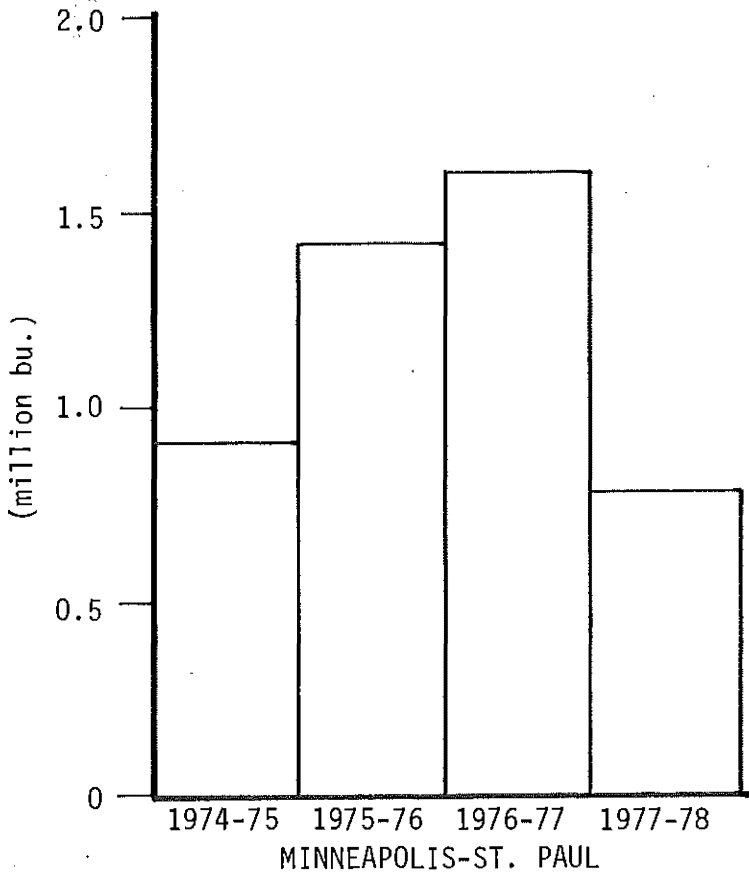


**RYE
MOVEMENTS**

NORTH DAKOTA RYE SHIPMENTS
BY DESTINATION

| DESTINATION | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|-----------------------|-----------------|-----------------|-----------------|-----------------|
| | (thousand bu.) | | | |
| MINNEAPOLIS-ST. PAUL | 899 (36%) | 1,438 (44%) | 1,612 (58%) | 769 (43%) |
| DULUTH-SUPERIOR | 1,316 (52%) | 1,331 (40%) | 557 (20%) | 671 (38%) |
| WEST | 100 (4%) | 71 (2%) | 86 (3%) | 104 (6%) |
| MISCELLANEOUS MARKETS | 198 (8%) | 455 (14%) | 514 (19%) | 228 (13%) |
| TOTAL | 2,513 (100%) | 3,295 (100%) | 2,769 (100%) | 1,772 (100%) |

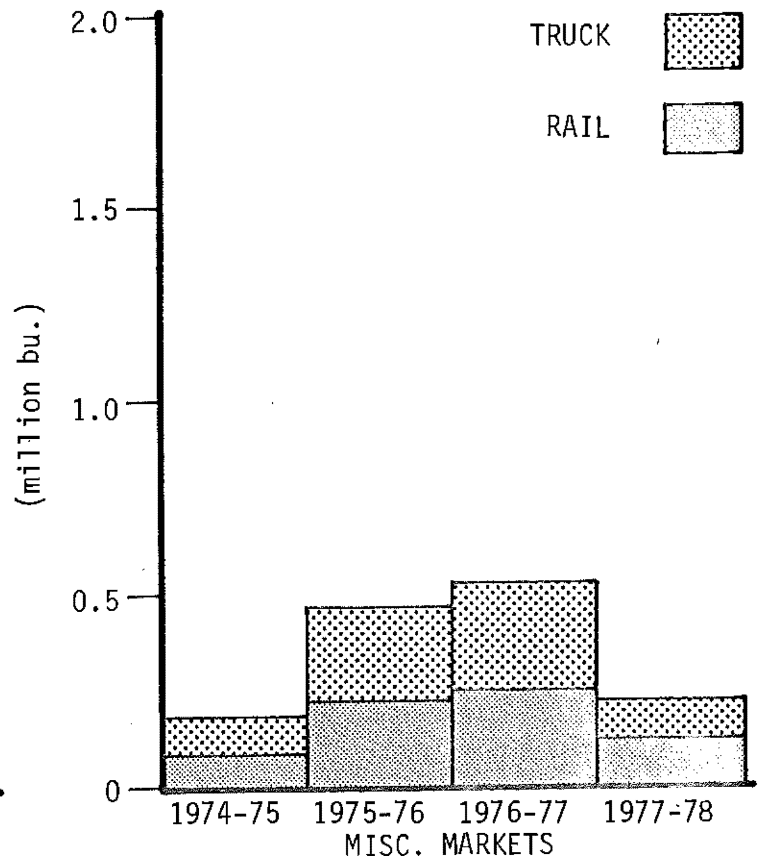
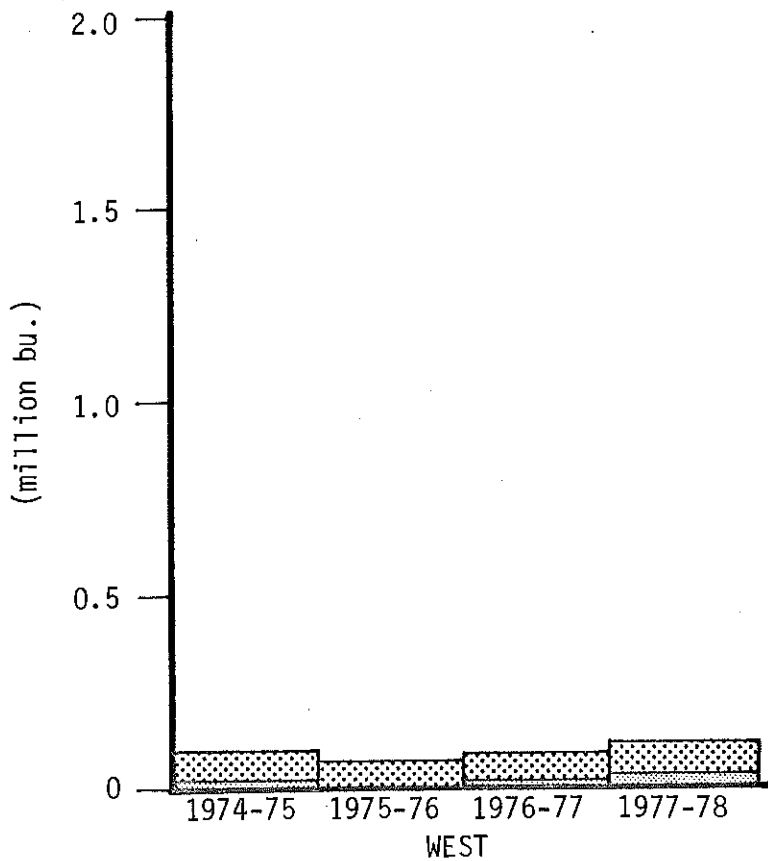
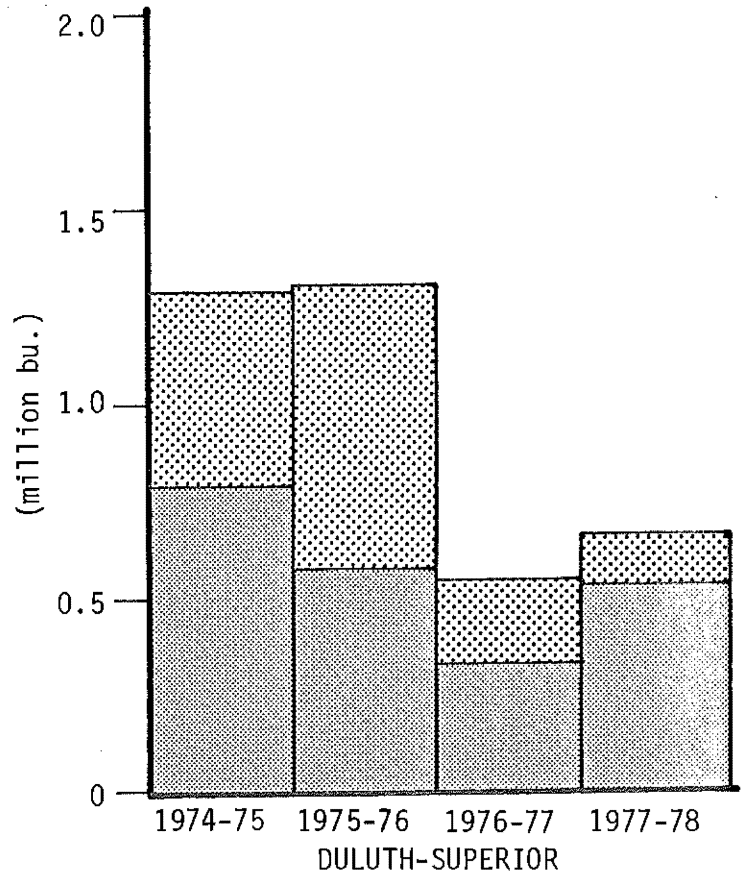
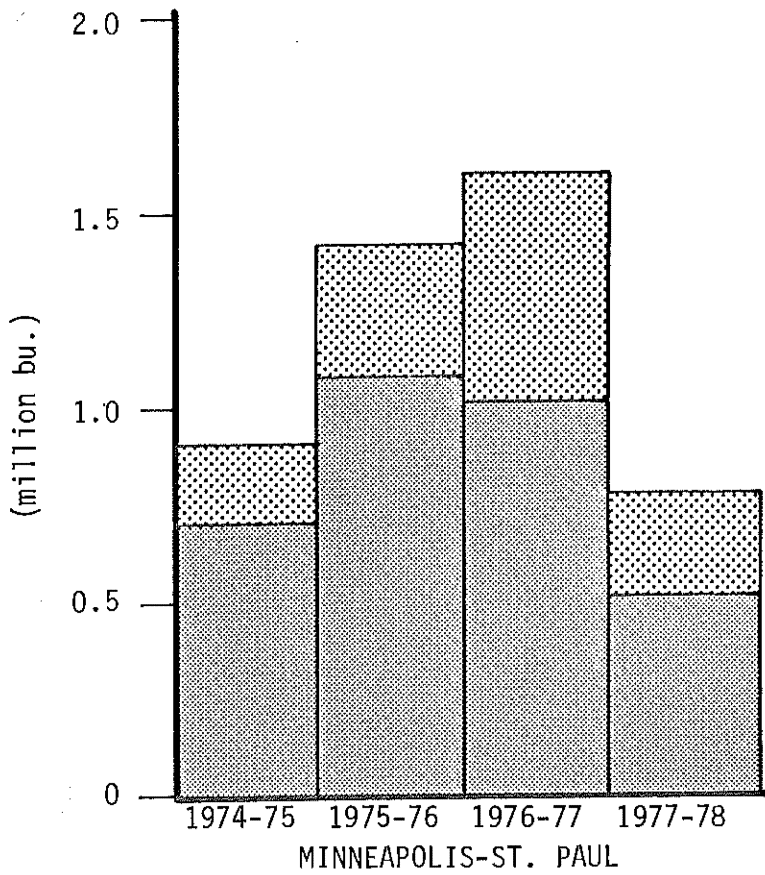
NORTH DAKOTA RYE SHIPMENTS
BY DESTINATION



NORTH DAKOTA RYE SHIPMENTS BY RAIL AND TRUCK AND DESTINATION

| DESTINATION | 1974-75 | | 1975-76 | | 1976-77 | | 1977-78 | |
|------------------|----------------|--------------|----------------|----------------|----------------|----------------|----------------|--------------|
| | Rail | Truck | Rail | Truck | Rail | Truck | Rail | Truck |
| | (thousand bu.) | | | | | | | |
| MINN. - ST. PAUL | 703 (78%) | 196 (22%) | 1,085 (75%) | 353 (25%) | 1,009 (63%) | 603 (37%) | 512 (67%) | 257 (33%) |
| DULUTH-SUPERIOR | 779 (59%) | 538 (41%) | 588 (44%) | 743 (56%) | 311 (56%) | 246 (44%) | 525 (78%) | 146 (22%) |
| WEST | 9 (9%) | 91 (91%) | 0 (0%) | 71 (100%) | 6 (7%) | 80 (93%) | 22 (21%) | 82 (79%) |
| MISC. MARKETS | 100 (50%) | 98 (50%) | 245 (54%) | 210 (46%) | 267 (52%) | 247 (48%) | 142 (62%) | 86 (38%) |
| TOTAL | 1,591 (63%) | 923 (37%) | 1,918 (58%) | 1,377 (42%) | 1,593 (58%) | 1,176 (42%) | 1,201 (68%) | 571 (32%) |

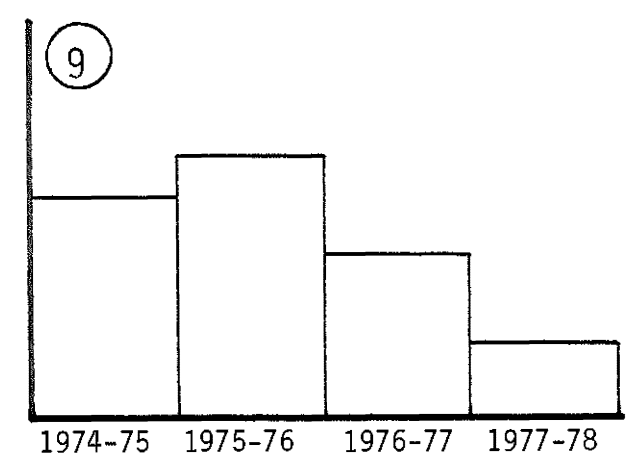
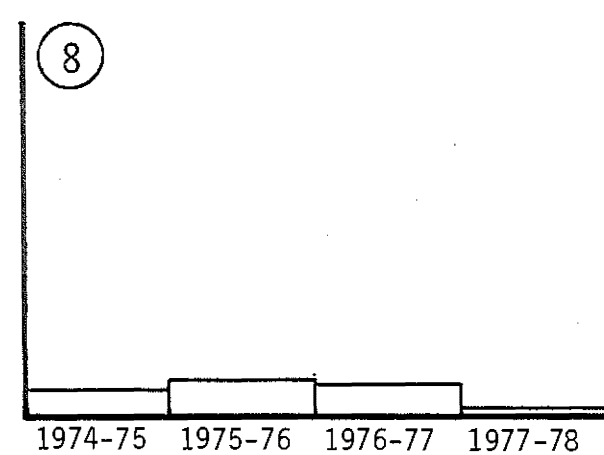
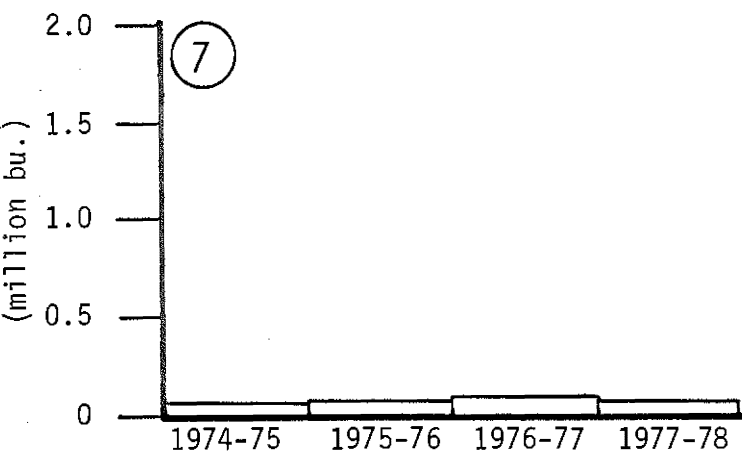
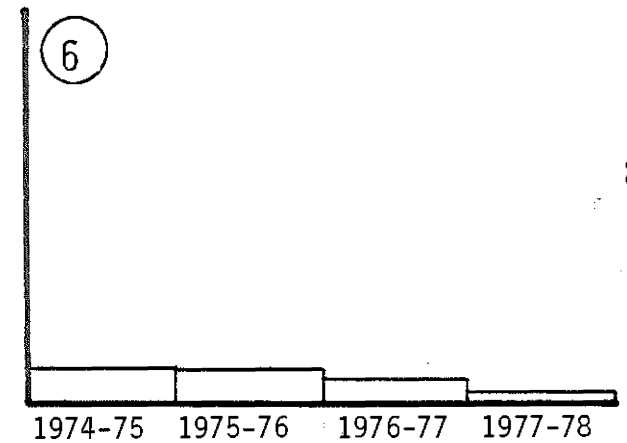
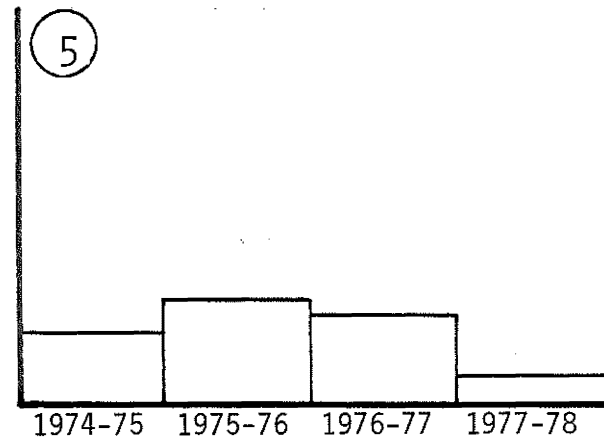
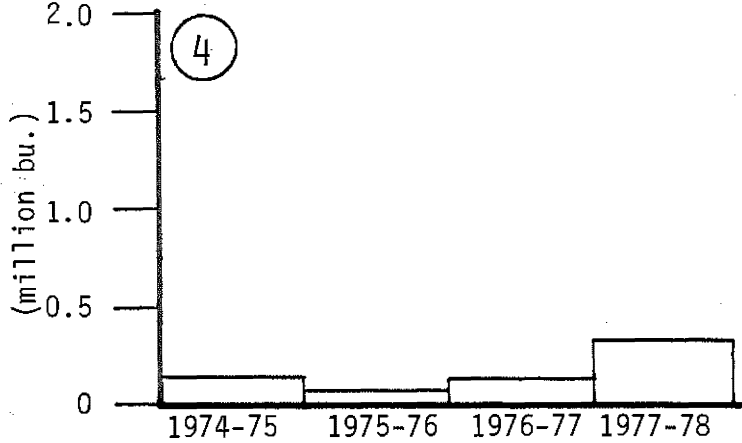
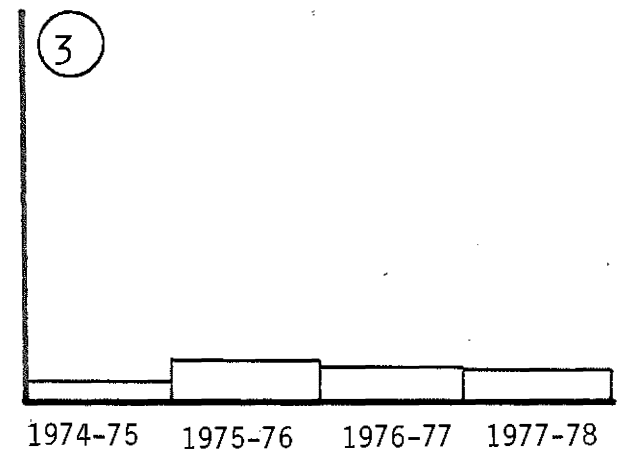
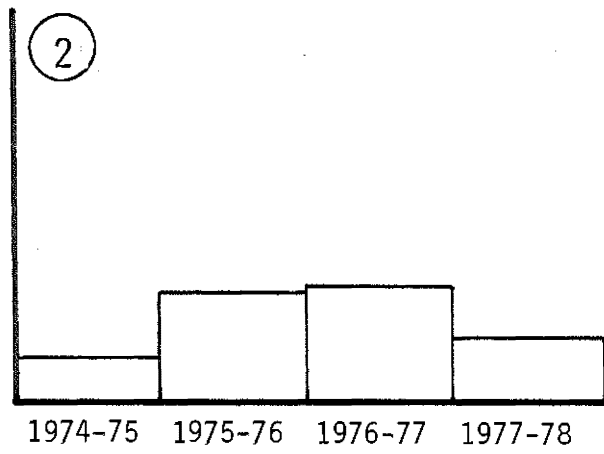
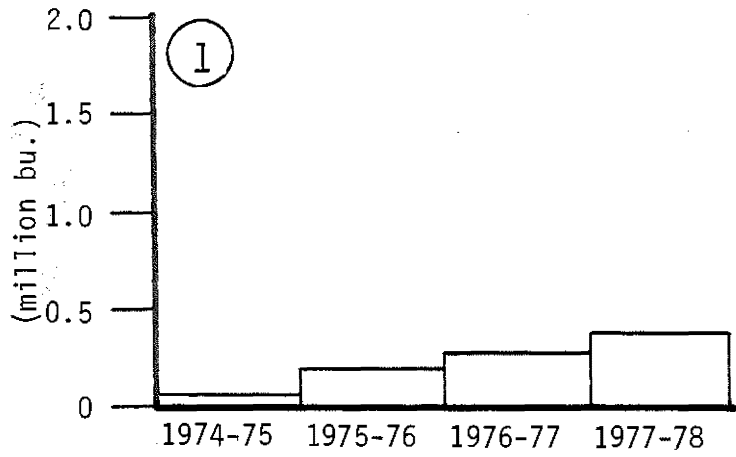
NORTH DAKOTA RYE SHIPMENTS
BY RAIL AND TRUCK AND DESTINATION



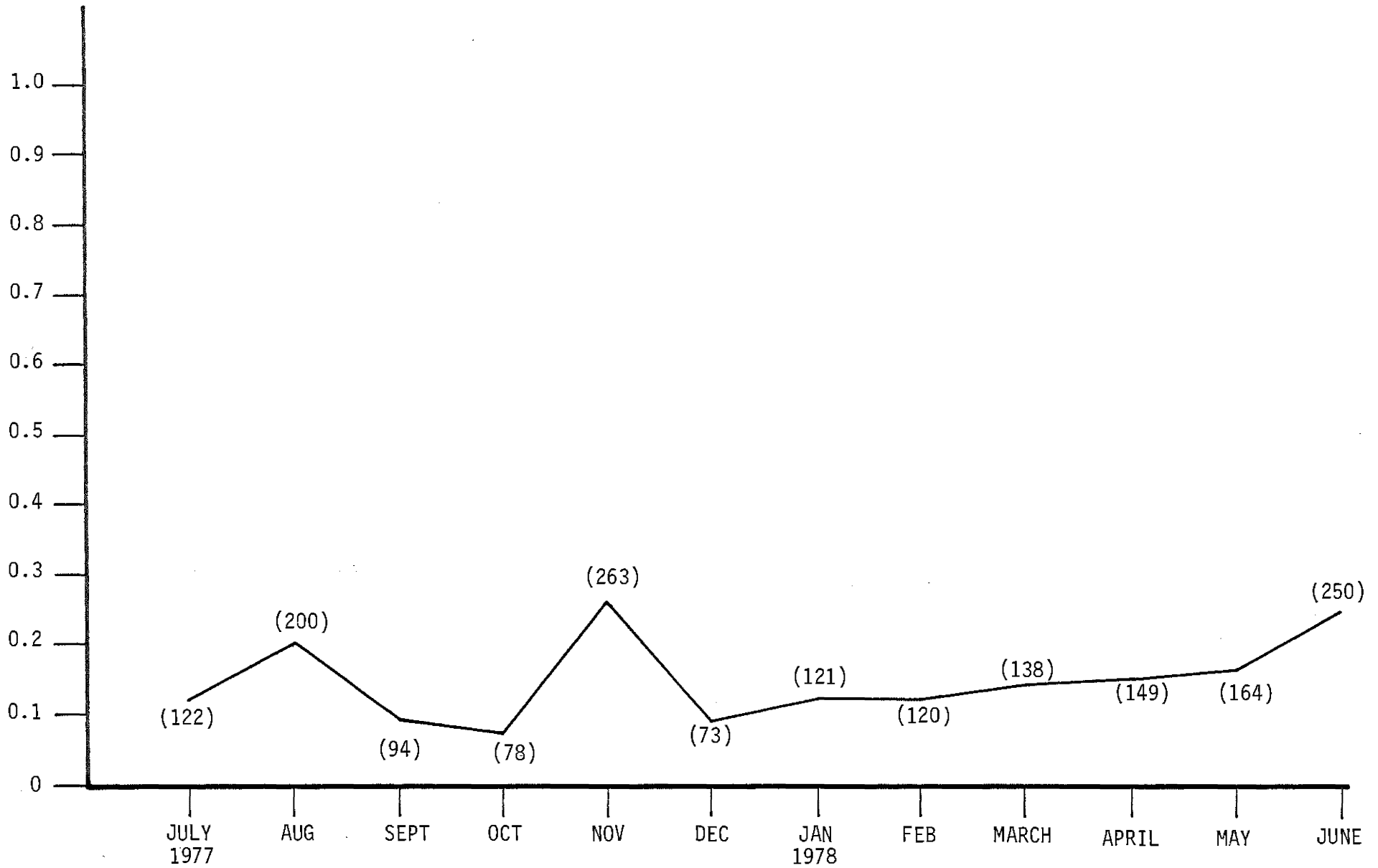
NORTH DAKOTA RYE SHIPMENTS BY ORIGIN
(CROP REPORTING DISTRICT)

| CROP REPORTING DISTRICT | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|----------------------------|----------------|---------|---------|---------|
| | (thousand bu.) | | | |
| 1 | 59 | 218 | 285 | 334 |
| 2 | 221 | 541 | 557 | 315 |
| 3 | 87 | 222 | 189 | 181 |
| 4 | 147 | 71 | 124 | 304 |
| 5 | 347 | 518 | 444 | 122 |
| 6 | 209 | 206 | 161 | 59 |
| 7 | 71 | 77 | 93 | 75 |
| 8 | 103 | 134 | 118 | 27 |
| 9 | 1,170 | 1,305 | 799 | 355 |
| Total | 2,414 | 3,292 | 2,770 | 1,772 |

NORTH DAKOTA RYE SHIPMENTS BY ORIGIN
(CROP REPORTING DISTRICT)



NORTH DAKOTA RYE SHIPMENTS BY MONTH
July, 1977 - June, 1978

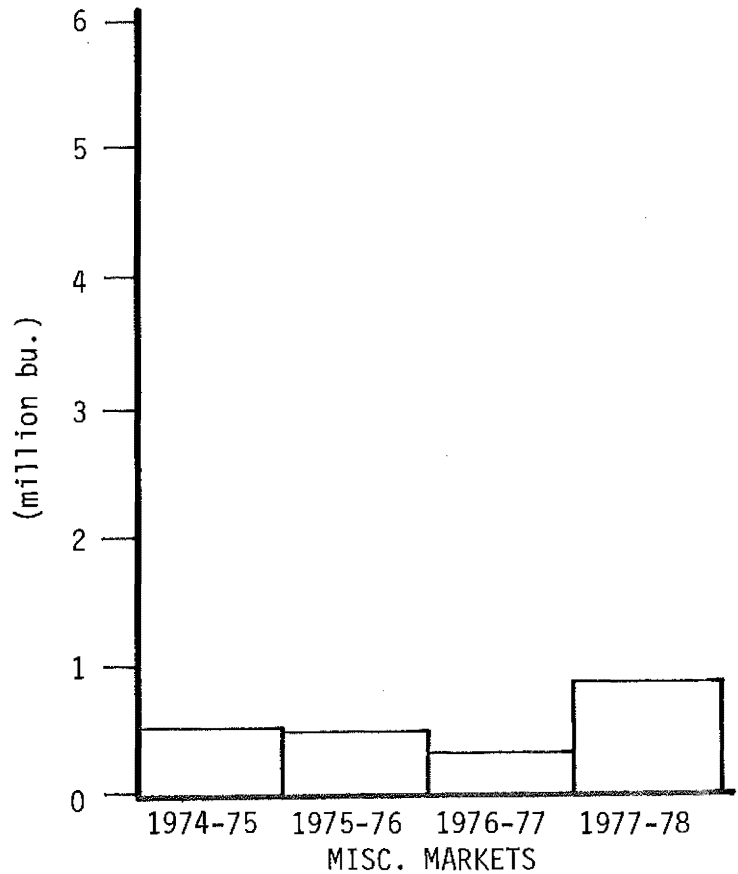
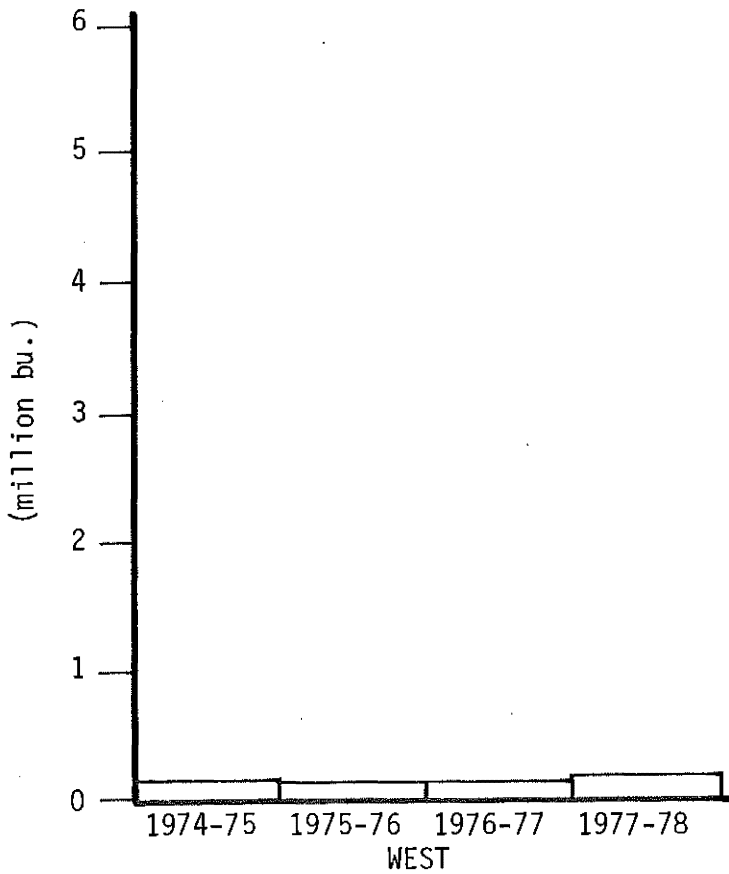
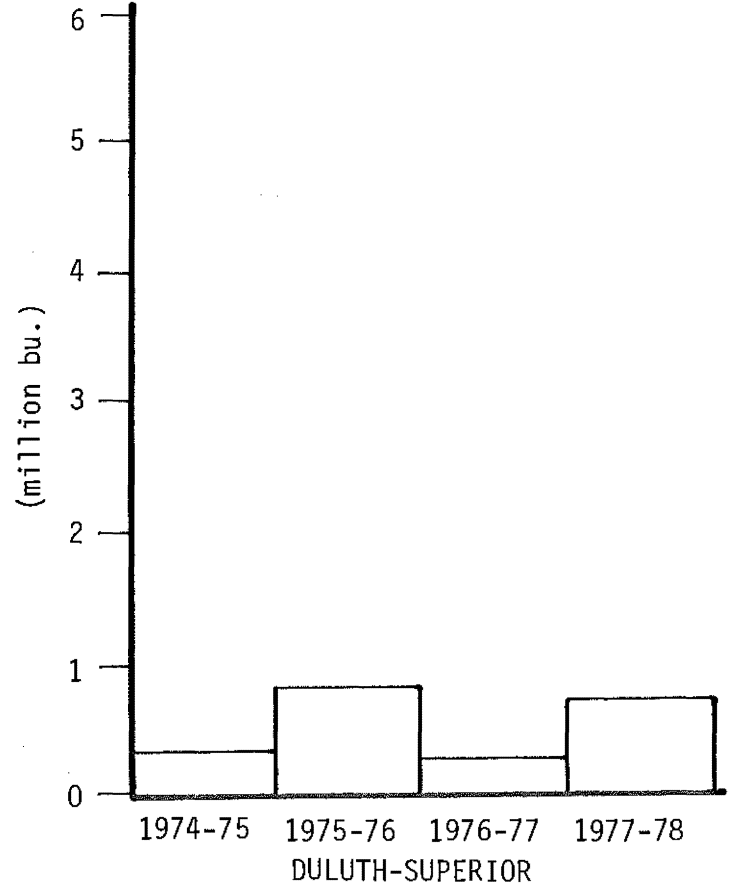
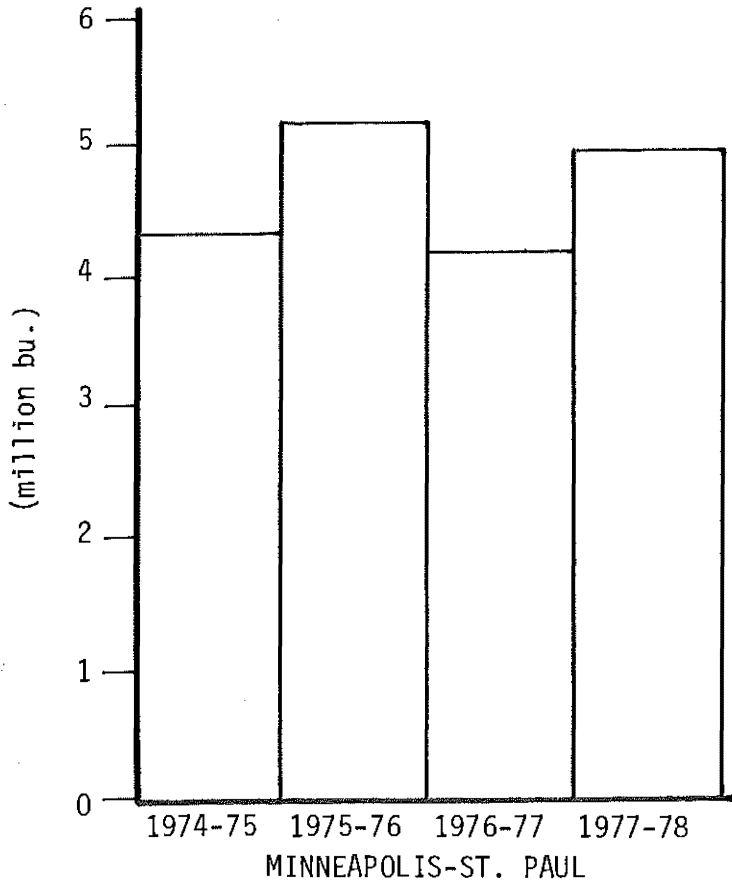


**FLAXSEED
MOVEMENTS**

NORTH DAKOTA FLAXSEED SHIPMENTS BY DESTINATION

| DESTINATION | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|------------------------|-----------------|-----------------|-----------------|-----------------|
| | (thousand bu.) | | | |
| MINNEAPOLIS - ST. PAUL | 4,354 (82%) | 5,170 (78%) | 4,260 (87%) | 4,941 (80%) |
| DULUTH - SUPERIOR | 346 (7%) | 855 (13%) | 284 (6%) | 748 (12%) |
| WEST | 69 (1%) | 60 (1%) | 59 (1%) | 72 (1%) |
| MISCELLANEOUS MARKETS | 531 (10%) | 505 (8%) | 279 (6%) | 413 (7%) |
| TOTAL | 5,300 (100%) | 6,590 (100%) | 4,882 (100%) | 6,174 (100%) |

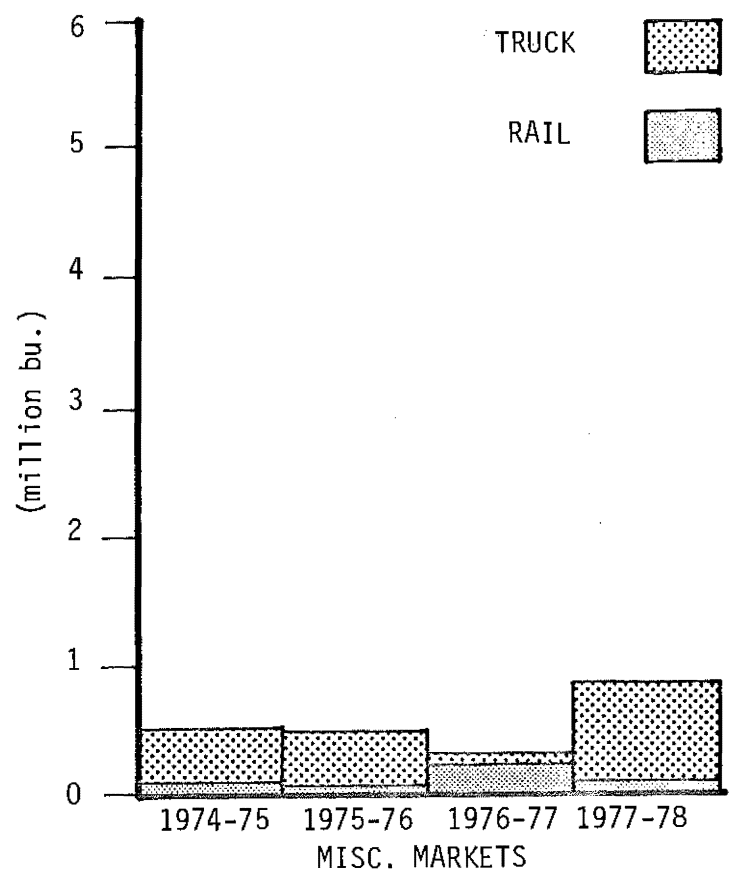
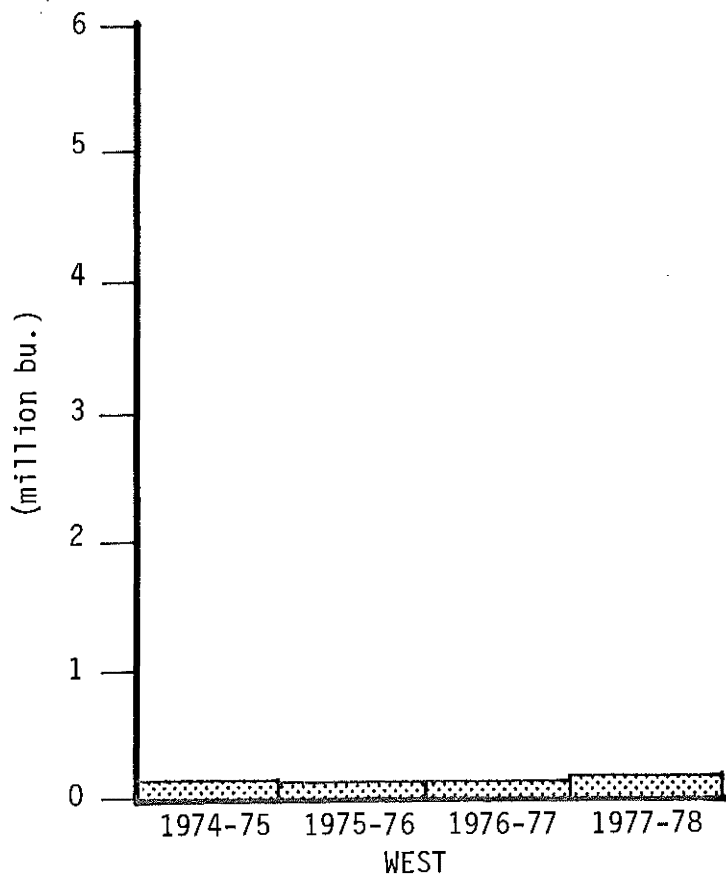
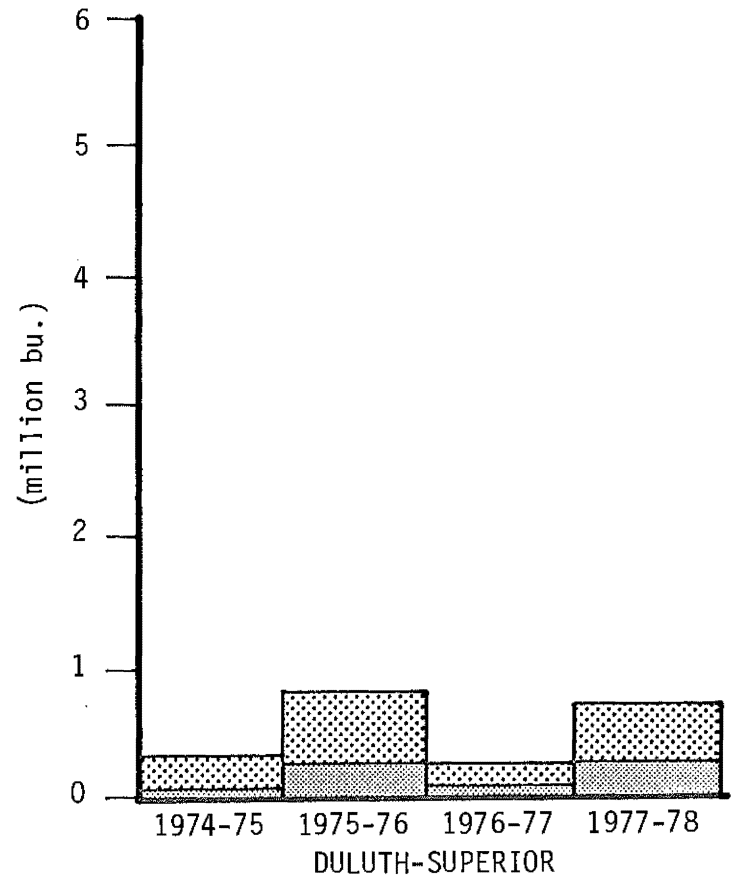
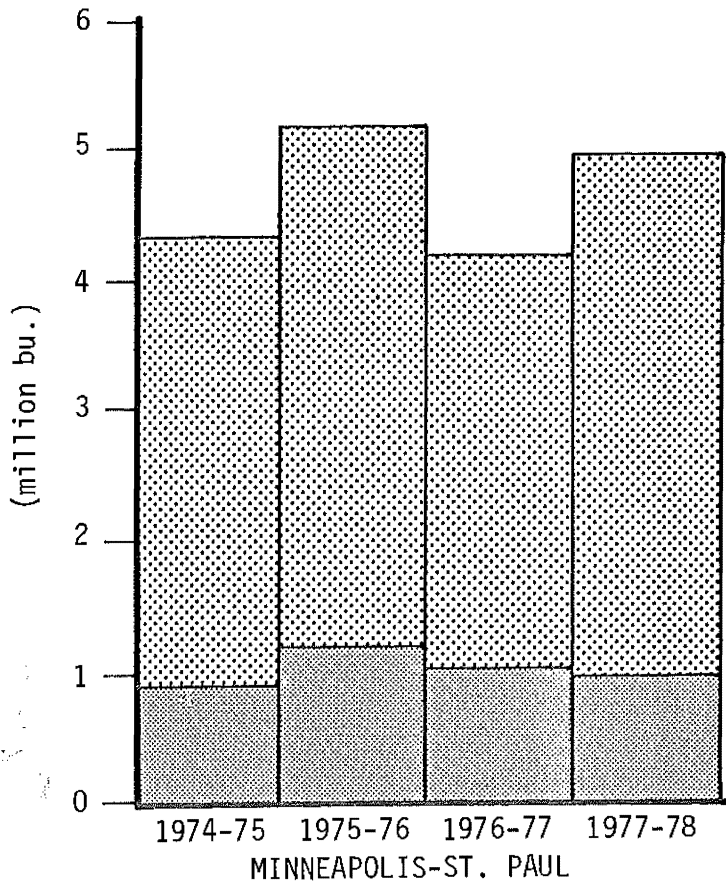
NORTH DAKOTA FLAXSEED SHIPMENTS
BY DESTINATION





NORTH DAKOTA FLAXSEED SHIPMENTS BY RAIL AND TRUCK AND DESTINATION

| DESTINATION | 1974-75 | | 1975-76 | | 1976-77 | | 1977-78 | |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | Rail | Truck | Rail | Truck | Rail | Truck | Rail | Truck |
| (thousand bu.) | | | | | | | | |
| MINN. - ST. PAUL | 915 (21%) | 3,439 (79%) | 1,213 (23%) | 3,957 (77%) | 1,046 (25%) | 3,214 (75%) | 987 (20%) | 3,954 (80%) |
| DULUTH - SUPERIOR | 55 (16%) | 291 (84%) | 317 (37%) | 538 (63%) | 102 (36%) | 183 (64%) | 226 (30%) | 522 (70%) |
| WEST | 0 (0%) | 69 (100%) | 0 (0%) | 60 (100%) | 0 (0%) | 59 (100%) | 0 | 72 (100%) |
| MISC. MARKETS | 78 (15%) | 453 (85%) | 31 (6%) | 474 (94%) | 206 (74%) | 74 (26%) | 74 (18%) | 339 (82%) |
| TOTAL | 1,048 (20%) | 4,252 (80%) | 1,561 (24%) | 5,029 (76%) | 1,354 (28%) | 3,530 (72%) | 1,287 (21%) | 4,887 (79%) |

NORTH DAKOTA FLAXSEED SHIPMENTS
BY RAIL AND TRUCK AND DESTINATIONS

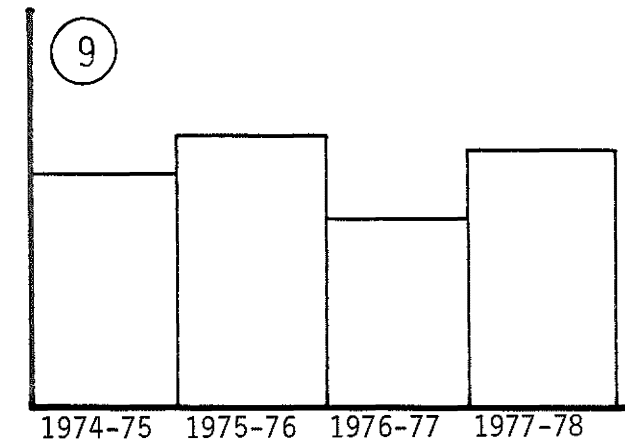
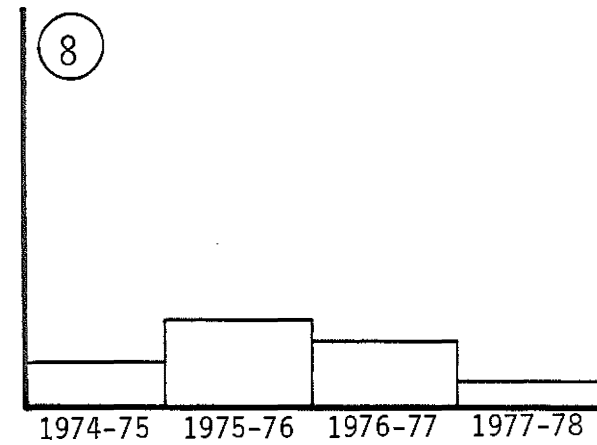
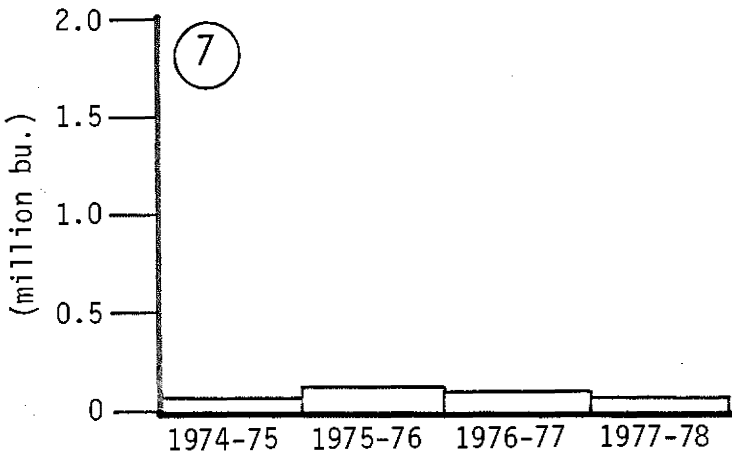
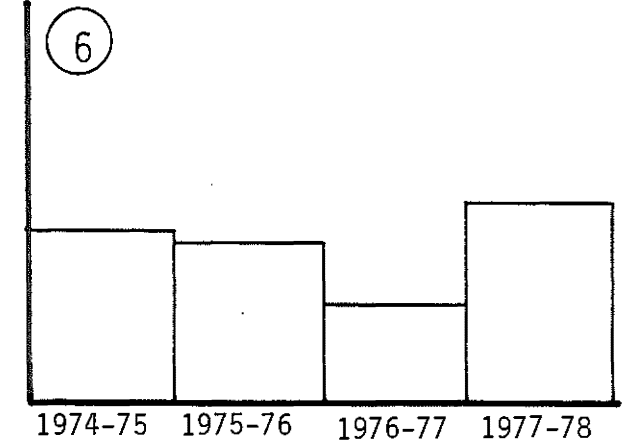
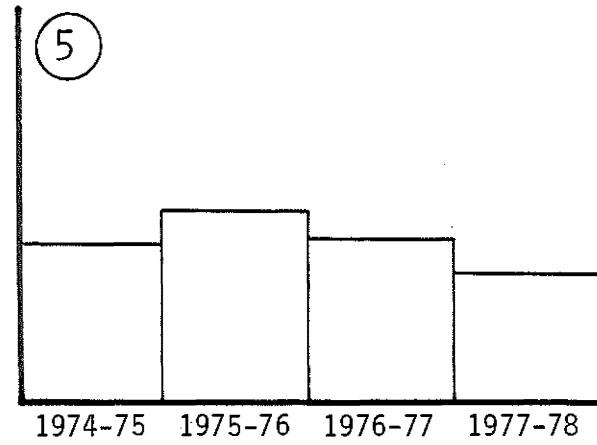
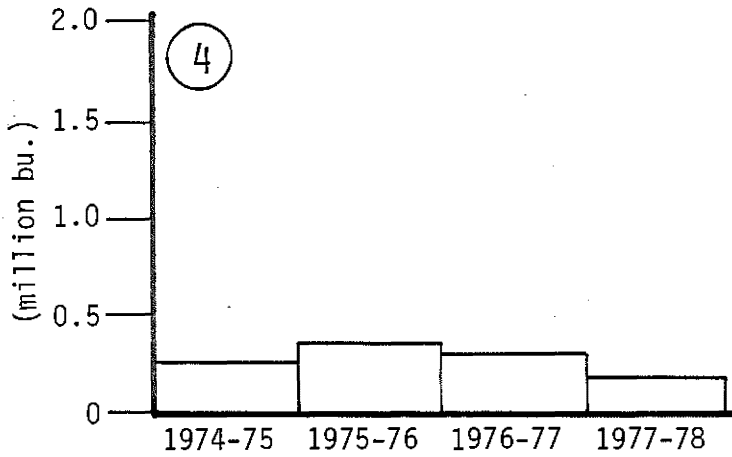
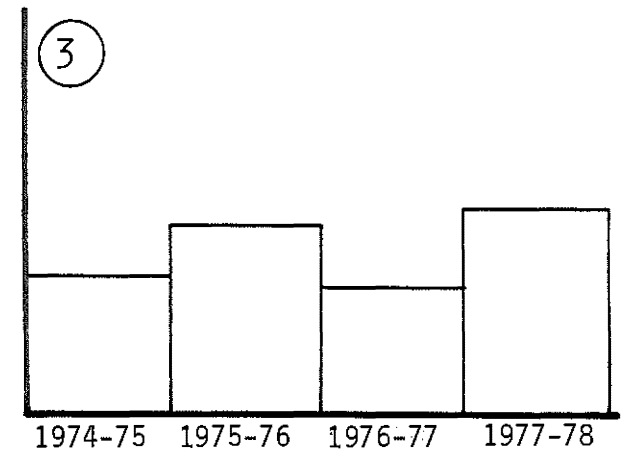
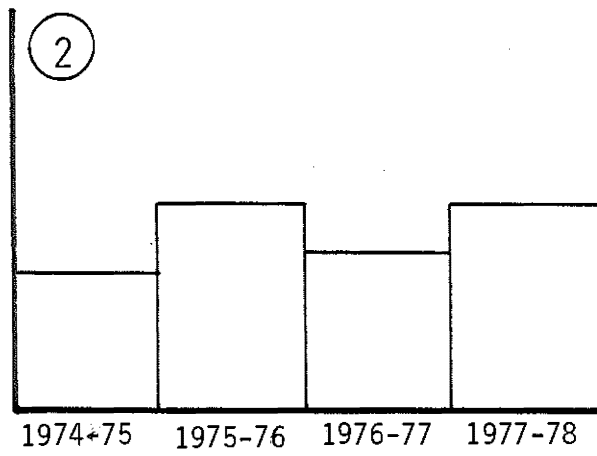
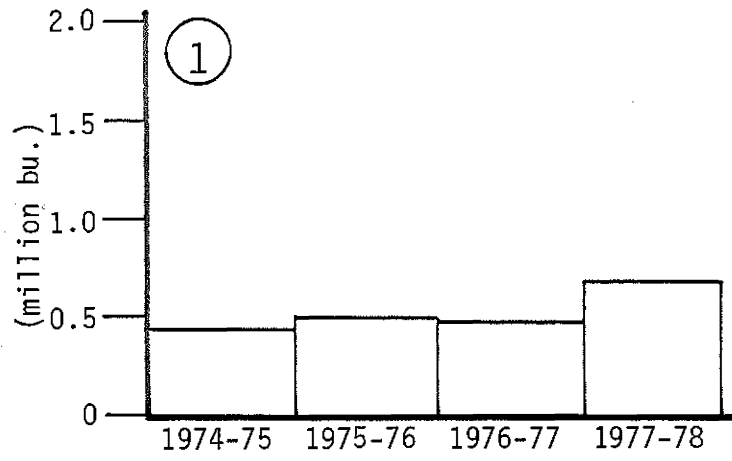


TRUCK 
RAIL 

NORTH DAKOTA FLAXSEED SHIPMENTS BY ORIGIN
(CROP REPORTING DISTRICT)

| CROP REPORTING DISTRICT | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|----------------------------|----------------|---------|---------|---------|
| | (thousand bu.) | | | |
| 1 | 426 | 487 | 450 | 678 |
| 2 | 707 | 1,047 | 794 | 1,022 |
| 3 | 703 | 929 | 656 | 1,054 |
| 4 | 258 | 371 | 307 | 203 |
| 5 | 806 | 986 | 829 | 679 |
| 6 | 889 | 819 | 491 | 1,024 |
| 7 | 78 | 135 | 98 | 74 |
| 8 | 236 | 424 | 323 | 145 |
| 9 | 1,196 | 1,393 | 935 | 1,295 |
| TOTAL | 5,299 | 6,591 | 4,883 | 6,174 |

NORTH DAKOTA FLAXSEED SHIPMENTS BY ORIGIN
(CROP REPORTING DISTRICT)



NORTH DAKOTA FLAXSEED SHIPMENTS BY MONTH
July, 1977 - June, 1978

