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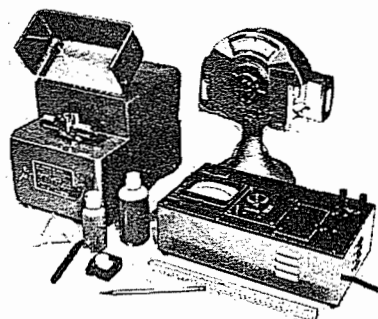
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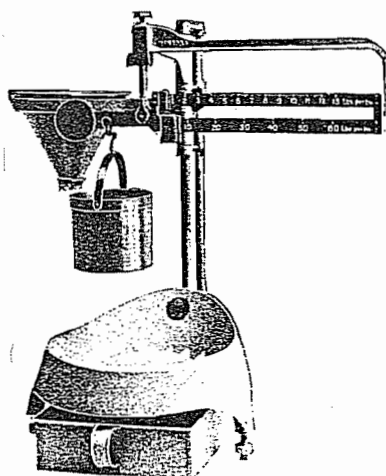
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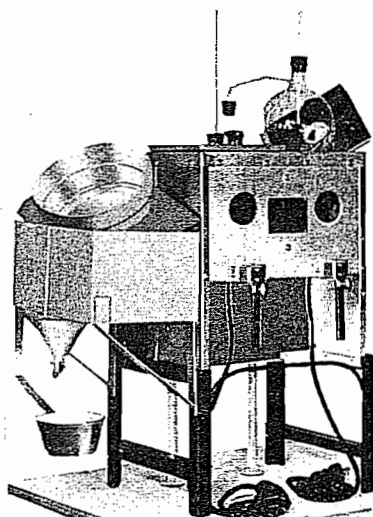


Test Weight

Market Factors of North Dakota Hard Red Spring Wheat 1962 Shipments

RONALD A. ANDERSON
ASSISTANT IN AGRICULTURAL ECONOMICS

FRED R. TAYLOR
AGRICULTURAL ECONOMIST



Moisture

DEPARTMENT OF AGRICULTURAL ECONOMICS
AGRICULTURAL EXPERIMENT STATION
NORTH DAKOTA STATE UNIVERSITY
OF AGRICULTURE AND APPLIED SCIENCE
FARGO, NORTH DAKOTA

FOREWORD

This publication is made possible through the support of the North Dakota State Wheat Commission in their continuing efforts to provide information regarding the quality and availability of wheat produced in North Dakota. It is the eighth in a series of reports and articles made possible through a grant from the Commission to the Department of Agricultural Economics for a study of the "Factors Affecting the Marketing of North Dakota Wheat." Previous releases include:

1. Wheat Statistics for North Dakota, Agricultural Economics Report No. 20, August 1961.
2. Protein Content of North Dakota Wheat, North Dakota Farm Research, March-April 1962.
3. Market Factors of North Dakota Hard Red Spring Wheat, Agricultural Economics Report No. 21, April 1962.
4. North Dakota Hard Red Spring Wheat Shipments, North Dakota Farm Research, September-October 1962.
5. Durum Market Factors, 1962, North Dakota Farm Research, January-February 1963.
6. Quality Factors of North Dakota Durum Shipments, 1960, 1961, 1962, Agricultural Economics Report No. 26, January 1963.
7. Durum Data, Agricultural Economics Report No. 27, February 1963.

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TABLE OF CONTENTS

	<u>Page</u>
Introduction - - - - -	1
1962 Hard Red Spring Wheat Shipment Survey - - - - -	2
Procedure- - - - -	2
Findings - - - - -	2
Protein Content- - - - -	4
Test Weight- - - - -	5
Moisture Content - - - - -	6
Other Grade Factors- - - - -	7
Dockage- - - - -	7
Foreign Material - - - - -	7
Shrunken and Broken Kernels- - - - -	7
Damaged Kernels- - - - -	7
Wheat of Other Classes - - - - -	7
Other Grains - - - - -	9
Appendix A: Official Grade Standards for Hard Red Spring Wheat- - - -	10
Appendix B: Additional Data on Hard Red Spring Shipments- - - - -	11

MARKET FACTORS OF 1962 NORTH DAKOTA
HARD RED SPRING WHEAT SHIPMENTS

Ronald A. Anderson and Fred R. Taylor¹

Wheat is North Dakota's most important crop. Preliminary estimates indicate that North Dakota produced 158,500,000 bushels of all wheat in 1962. This crop was produced on 5,519,000 acres for an estimated average yield of 28.7 bushels per harvested acre. Of this total an estimated 98,918,000 bushels were spring wheat and 59,582,000 bushels were durum with estimated average yields of 27.5 and 31.0 bushels respectively.

Estimated cash farm income from wheat amounted to \$220,484,000 in 1960 and \$186,473,000 for 1961. The ten-year average cash farm income from wheat for the 1948-57 period was \$220,696,000. Wheat income amounted to between 35-40 per cent of total cash farm receipts of North Dakota agriculture.

Practically all of North Dakota's wheat is marketed for human consumption and for the most part is shipped out of state to terminal markets in other states. Wheat from North Dakota historically has had a reputation for high quality, as evidenced by its uniformity, higher than average protein content, and strong milling and baking characteristics.²

The preference for wheat of particular kinds by various segments of the industry differs because of a number of factors. Grade is probably the most important measure to the wheat producer and elevator operator as this factor largely determines price. Protein content is another factor of interest because wheat of higher than average protein content generally demands a premium in the market. Although protein content is not a grading factor, the amount present usually designates suitability for a specific use by millers and bakers. Other factors of interest are bushel weight, moisture content, damaged kernels, foreign material, wheats of other classes and more recently, the sedimentation values of the wheat.

Each year at harvest time, samples of wheat from a stratified random sample of North Dakota country elevators are obtained by county Extension Agents and sent in for analysis to help determine in advance of the marketing of the crop the average market quality patterns for North Dakota hard red spring wheat and durum wheat.³ The data in this report supplements and strengthens the findings of the harvest survey and of the milling and baking properties analyses reported in the footnotes cited.

¹Former Assistant in Agricultural Economics and Agricultural Economist, North Dakota Agricultural Experiment Station.

²Milling and Baking Properties of North Dakota's 1962 Hard Red Spring Wheat Crop, K. A. Gilles and L. D. Sibbitt, North Dakota Farm Research, Vol. 22, No. 10, March-April 1963.

³Market Quality Patterns for North Dakota Hard Red Spring Wheat, Herbison, Taylor and Gilles, Cir. GM-62-1, October 1962, and Market Quality Patterns for North Dakota Durum Wheat, Herbison, Taylor and Gilles, Cir. GM-62-2, Extension Service, North Dakota State University.

1962 Hard Red Spring Wheat Shipment Survey

The main objective of this study was to determine the grade distribution of wheat shipped, by origin, and to tabulate the various factors accompanying each grade designation. The study is a sequel to the 1961 study, "Market Factors of North Dakota Hard Red Spring Wheat," Agricultural Economics Report No. 21, April 1962.

Analysis shows that elevator shipments of 1962 hard red spring wheat from North Dakota matched the high quality standards established by 1961 shipments. Although slightly lower in protein content, 1962 shipments were similar in grade, slightly higher in bushel weight and moisture content, and contained less dockage, foreign material, shrunken and broken kernels, other grains and wheat of other classes.

Procedure

To obtain comparable data with the 1961 survey, a 10 per cent sample was taken of the inspection reports for all carlots of hard red spring wheat tested at North Dakota inspection points between July 1 and December 31, 1962. This procedure yielded a total of 1,159 carlot samples which was comprised of 407 carlot samples at Minot, 412 samples at Jamestown, and 316 samples at the Grand Forks hold point. The Fargo inspection point was also included. However, due to the small number of hard red spring wheat shipments inspected during this period, all shipments were included in the total 10 per cent sample from all inspection points. Twenty-four carlots were inspected at Fargo during the six-month period.

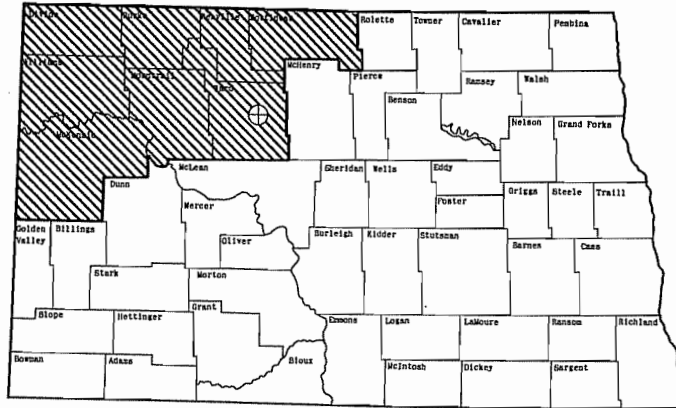
The source of carlot shipments, by counties, from samples taken at each inspection point and the total North Dakota area included in the sample is shown in Figure 1. Sample carlots originated in 40 out of 53 counties. Counties not included are served by railroads that facilitate inspection of North Dakota hard red spring wheat at Minnesota or South Dakota hold points.

Inspection center records provided needed information pertaining to test weight, moisture, foreign material, dockage, shrunken and broken kernels, damaged kernels, other grains and wheat of other classes. The protein content of each sample carlot was supplied by the cooperating protein laboratories while the origin of each shipment was obtained from rail manifest records on file in the inspection centers or railroad freight offices.

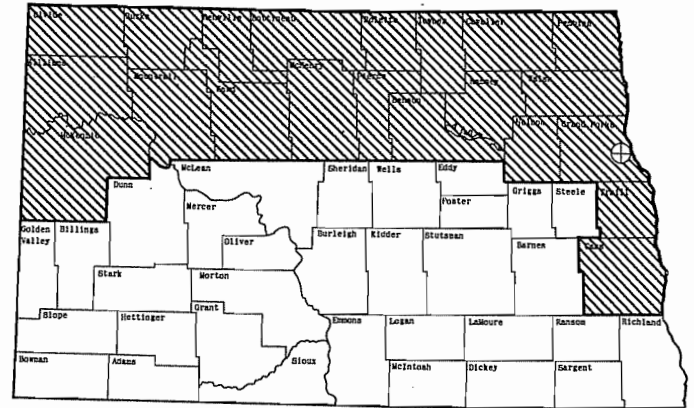
Findings

All data obtained in the six-month sample were tabulated according to grade and area of origin. County totals were then combined into the nine crop reporting districts shown on the bottom of Figure 1. No carlot shipments were present from the southeast crop reporting district in the total sample. Most of the wheat grown in this district is held for inspection in adjoining states if not shipped direct to the Minneapolis or Duluth markets.

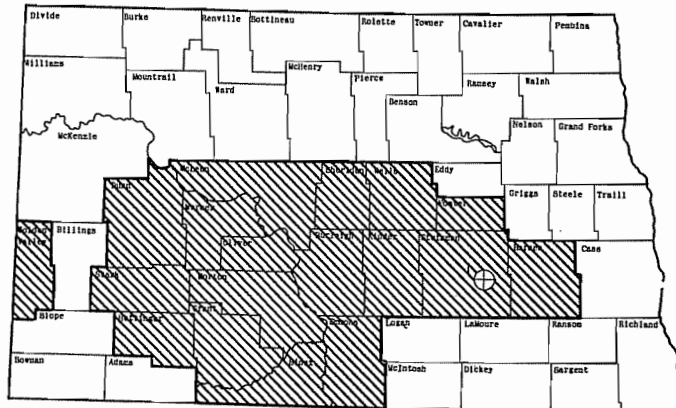
The grades of hard red spring wheat present in the total 1,159 sample shipments are indicated in Table 1. They include No. 1 heavy dark northern spring, No. 1 through sample grade dark northern spring, No. 1 heavy and No. 1



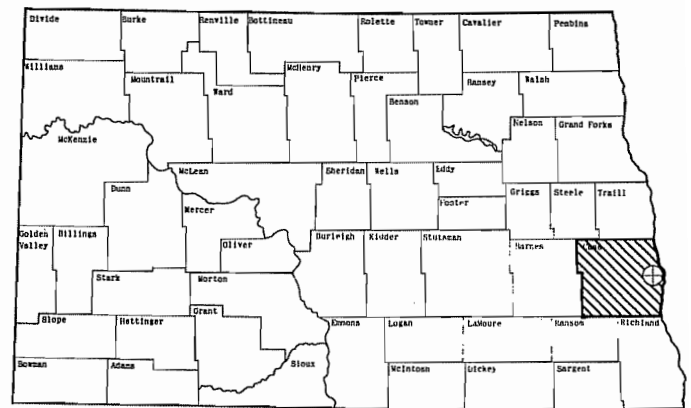
MINOT



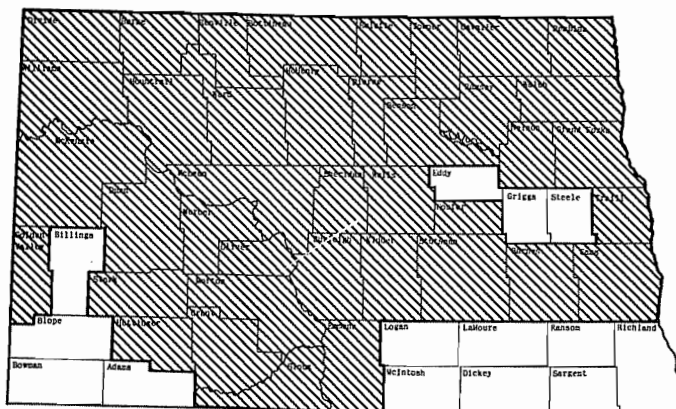
GRAND FORKS



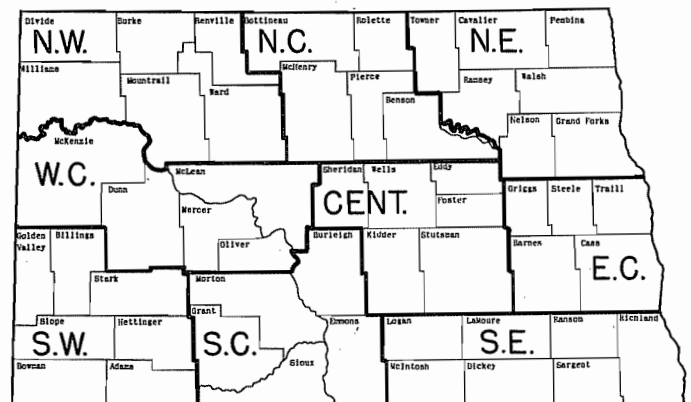
JAMESTOWN



FARGO



TOTAL SAMPLE AREA



CROP REPORTING DISTRICTS

Figure 1. Counties Included in 10 Per Cent Sample of Carlots Inspected at North Dakota Hold Points, Total Sample Area and North Dakota Crop Reporting Districts.

northern spring. Approximately 90 per cent of the total carlots included in the 1962 survey graded No. 2 dark northern spring or better as compared to 91 per cent in 1961 during the same six-month period.

TABLE 1. NUMBER OF CARLOTS INCLUDED IN 1962 10 PER CENT SAMPLE, BY GRADE AND INSPECTION CENTER, AND 1962 AND 1961 PERCENTAGE GRADE DISTRIBUTION

Grade	Inspection Center				STATE TOTAL	1962	1961
	Minot	James- town	Grand Forks	Fargo ¹		Per Cent	Per Cent
	- - - - - carlots - - - - -						
No. 1 Heavy DNS	187	225	69	8	489	<u>42.3</u>	34.0
No. 1 DNS	125	135	151	8	419	36.2	<u>44.6</u> 98.6
No. 2 DNS	45	33	47	5	130	11.2	12.3
No. 3 DNS	40	16	26	1	83	7.1	6.6
No. 4 DNS	9	2	9	2	22	1.9	1.0
No. 5 DNS	---	---	2	---	2	0.2	0.1
S.G. DNS	1	1	4	---	6	0.5	1.3
No. 1 Heavy NS	---	---	3	---	3	0.2	----
No. 1 NS	<u>---</u>	<u>---</u>	<u>5</u>	<u>---</u>	<u>5</u>	<u>0.4</u>	<u>0.1</u>
ALL GRADES	407	412	316	24	1,159	100.0	100.0

¹Includes all shipments of hard red spring wheat inspected during the six-month period.

In 1962, 42.3 per cent graded No. 1 heavy dark northern spring, 36.2 per cent graded No. 1 DNS and 11.2 per cent graded No. 2 DNS. A year previous, the respective percentages were 34.0, 44.6 and 12.3 per cent. Appendix A shows the official grain standards for hard red spring wheat. Maximum limits allowed of various factors are indicated for each grade designation.

Protein Content

North Dakota shipments of hard red spring wheat during the 1962 sample period were somewhat lower in protein content than for the same period in 1961. The average of all shipments was 14.2 per cent as compared to 15.1 per cent protein in 1961 (Table 2). In 1962, the range of all shipments was from 10.7

to 18.4 per cent with the northwest district having the largest average protein content of 14.7 per cent and the northeast with the lowest average of 13.6 per cent protein.

TABLE 2. AVERAGE AND RANGE OF PROTEIN CONTENT OF CARLOT SAMPLES OF H.R.S. WHEAT SHIPMENTS, BY CROP REPORTING DISTRICT, AND STATE TOTALS, 1962 AND 1961

Crop Reporting District	Total Number of Shipments	Protein Content, Per Cent	
		Average	Range
Southwest	111	14.2	12.7 - 17.0
West Central	108	14.2	12.6 - 17.9
Northwest	432	14.7	12.5 - 17.9
South Central	140	13.3	11.8 - 17.0
Central	68	14.0	12.7 - 18.4
North Central	64	14.5	12.5 - 16.8
Southeast	---	----	-----
East Central	56	13.9	12.7 - 15.0
Northeast	<u>180</u>	13.6	10.7 - 16.2
NORTH DAKOTA, 1962	1,159	14.2	10.7 - 18.4
NORTH DAKOTA, 1961	778	15.1	11.8 - 18.2

The protein content of each hard red spring wheat carlot shipment was again tabulated on the basis of the number of carlots falling within specified 0.5 per cent protein ranges (Appendix Table B-5). Over eight per cent of the shipments (95 of 1,159) had a protein content of 16.0 per cent or more. Most of these shipments originated in the western part of the state. During the 1961 sample period, 20 per cent of all shipments contained 16.0 per cent protein or more.

Test Weight

The average test weight per bushel of all sample shipments in 1962 was 59.3 pounds (Table 3). This compares with a 59.1 pound average during the same period in 1961. The highest 1962 district average was 60.5 pounds in the southwest while the lowest average of 58.1 pounds per bushel occurred in the central district. The range of all shipments was from 51.2 to 63.2 pounds per bushel.

Bushel weights were also tabulated on the basis of the number of carlots falling within 1 pound test weight ranges. Appendix Table B-9 indicates that 81 per cent of the total shipments (85 per cent in 1961) contained 58 pound wheat or better. Hard red spring wheat grading No. 1 dark northern spring or No. 1 northern spring or over must have a minimum test weight of 58 pounds per bushel.

TABLE 3. AVERAGE AND RANGE OF BUSHEL WEIGHTS OF CARLOT SAMPLES OF H.R.S. WHEAT SHIPMENTS, BY CROP REPORTING DISTRICT, AND STATE TOTALS, 1962 AND 1961

Crop Reporting District	Total Number of Shipments	Bushel Weight, Pounds	
		Average	Range
Southwest	111	60.5	57.7 - 63.0
West Central	108	59.4	55.2 - 62.7
Northwest	432	59.4	53.0 - 63.2
South Central	140	60.1	53.7 - 63.0
Central	68	58.1	57.0 - 62.1
North Central	64	58.2	51.2 - 60.5
Southeast	---	----	-----
East Central	56	59.0	57.0 - 60.8
Northeast	180	58.6	53.3 - 61.7
NORTH DAKOTA, 1962	1,159	59.3	51.2 - 63.2
NORTH DAKOTA, 1961	778	59.1	52.9 - 62.0

Moisture Content

The range in moisture content for all 1962 survey shipments was from 9.5 to 16.4 per cent with an average of 12.1 per cent moisture (Table 4). This compares with a range of 9.1 to 13.9 per cent and an average of 11.2 per cent moisture in 1961. In 1962, the northeast district had the highest moisture content of 12.9 while the northwest district had the lowest average of 11.8 per cent moisture.

TABLE 4. AVERAGE AND RANGE OF MOISTURE CONTENT OF CARLOT SAMPLES OF H.R.S. WHEAT SHIPMENTS, BY CROP REPORTING DISTRICT, AND STATE TOTALS, 1962 AND 1961

Crop Reporting District	Total Number of Shipments	Moisture Content, Per Cent	
		Average	Range
Southwest	111	12.0	10.2 - 13.9
West Central	108	12.1	10.4 - 14.7
Northwest	432	11.5	9.5 - 14.7
South Central	140	12.5	9.7 - 14.0
Central	68	12.6	10.7 - 15.0
North Central	64	11.8	10.4 - 13.7
Southeast	---	----	-----
East Central	56	12.4	11.0 - 14.5
Northeast	180	12.9	10.5 - 16.4
NORTH DAKOTA, 1962	1,159	12.1	9.5 - 16.4
NORTH DAKOTA, 1961	778	11.2	9.1 - 13.9

Thirteen out of the total 1,159 carlots carried the special grade designation of "tough" wheat. Tough wheat is wheat of any of the classes of hard red spring wheat which contains more than 14.5 per cent but not more than 16.0 per cent moisture. One carlot each from the west central and central district and 11 carlots from the northeast district were graded as tough wheat.

Appendix Table B-13 indicates that in 1962, 72.1 per cent of all shipments had a moisture content between 11.0 and 12.9 per cent. During the same six-month period in 1961, 63.4 per cent of the shipments were found within this range.

Other Grade Factors

Other grade factors such as dockage, foreign material, shrunken and broken kernels, damaged kernels, wheat of other classes and other grains also play an important part in grade determination. Table 5 indicates the percentage distribution of carlots containing varying amounts of these factors.

Dockage: In 1962, 95.3 per cent of all shipments contained one per cent dockage or less compared to 86.5 per cent during the same six-month period in 1961. Only 54 out of the total 1,159 carlots contained more than 1 per cent dockage. Most of these shipments were from the three northern crop reporting districts.

Foreign Material: Only 27 out of the total 1,159 carlots, or 2.3 per cent, contained foreign material. Ten carlots contained less than one per cent, 12 carlots contained between 1.0 and 1.9 per cent and five carlots contained over 2.0 per cent foreign material. In 1961, 4.4 per cent of all shipments contained foreign material with no single carlot containing over 4.2 per cent.

Shrunken and Broken Kernels: Two carlots from the northwest district were the only shipments containing shrunken and broken kernels during the 1962 sample period. Both carlots contained over 8.0 per cent.

Damaged Kernels: A total of 24 carlots (2.1 per cent) included in the 1962 survey contained varying amounts of damaged kernels ranging from 0.3 to 10.8 per cent. Seventeen of these carlots originated in the northeast district, three in the east central, two in the central and one each in the north central and northwest districts. Of the total 1,159 carlots, 1,135 or 97.9 per cent contained no damaged kernels.

Wheat of Other Classes: The seven carlots containing wheat of other classes originated in the northwest (3), east central (2), and northeast (2) districts. No single carlot contained over 3.0 per cent wheat of other classes. Five of the carlots contained durum while the remaining two contained hard red winter wheat.

TABLE 5. PERCENTAGE DISTRIBUTION OF TOTAL CARLOT SAMPLES FALLING WITHIN 1 PER CENT RANGES OF SPECIFIED GRADING FACTORS, 1962 AND 1961

[illegible]

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Other Grains: One carlot containing flax was the only shipment containing other grains in the total 1,159 sample carlots. The amount was 4.0 per cent and the carlot originated in the northwest crop reporting district.

The percentage distribution and number of carlots falling within specified percentage ranges of other grading factors is shown in Appendix Tables B-17 through B-22. The information is tabulated on the basis of area of origin. Appendix Table B-23 indicates the number of carlots, by grade, containing actual amounts of each grading factor for the entire sample with no area breakdown.

Hard Red Spring Wheat: This class shall include all varieties of hard red spring wheat and may include not more than 10.0 per cent of wheats of other classes. This class shall be divided into the following three subclasses:

- #### A-1. MAXIMUM FACTOR ALLOWANCES FOR HARD RED SPRING WHEAT GRADES

^aThe wheat in grades No. 1 heavy, No. 1, and No. 2 of this class may contain not more than 5.0 per cent, and in grade No. 3 not more than 8.0 per cent of shrunken and broken kernels.

⁴SOURCE: Official Grain Standards of the United States, Revised 1960 Edition, SRA-AMS-177, Grain Division, AMS, USDA.

APPENDIX B

Additional Data on Hard Red Spring Shipments

<u>Table Number</u>		<u>Page</u>
B-1	Percentage Distribution and <u>Number of Carlots</u> Included in 10 Per Cent Sample Survey, by Grade and Crop Reporting District - - -	13
	Average Values and Ranges for <u>Protein Content</u> , <u>Bushel Weight</u> , and <u>Moisture</u> of Carlot Samples in:	
B-2	Western North Dakota, by Grade and Crop Reporting District- - -	14
B-3	Central North Dakota, by Grade and Crop Reporting District- - -	15
B-4	Eastern North Dakota, by Grade and Crop Reporting District- - -	16
B-5	Percentage Distribution and Number of Carlot Samples Falling Within 0.5 Per Cent <u>Protein</u> Ranges, by Crop Reporting District - -	17
	Number of Carlot Samples Falling Within 0.5 Per Cent <u>Protein</u> Ranges in:	
B-6	Western North Dakota, by Crop Reporting District- - - - -	18
B-7	Central North Dakota, by Crop Reporting District- - - - -	19
B-8	Eastern North Dakota, by Crop Reporting District- - - - -	20
B-9	Percentage Distribution and Number of Carlot Samples Falling Within 1 Pound <u>Bushel Weight</u> Ranges, by Crop Reporting District- -	21
	Number of Carlot Samples Falling Within 1 Pound <u>Bushel Weight</u> Ranges in:	
B-10	Western North Dakota, by Grade and Crop Reporting District- - -	22
B-11	Central North Dakota, by Grade and Crop Reporting District- - -	23
B-12	Eastern North Dakota, by Grade and Crop Reporting District- - -	24
B-13	Percentage Distribution and Number of Carlot Samples Falling Within 0.5 <u>Moisture</u> Ranges, by Crop Reporting District - - - - -	25
	Number of Carlot Samples Falling Within 0.5 Per Cent <u>Moisture</u> Ranges in:	
B-14	Western North Dakota, by Grade and Crop Reporting District- - -	26
B-15	Central North Dakota, by Grade and Crop Reporting District- - -	27
B-16	Eastern North Dakota, by Grade and Crop Reporting District- - -	28

APPENDIX B

Additional Data on Hard Red Spring Shipments

<u>Table Number</u>		<u>Page</u>
B-17	Percentage Distribution and Number of Carlot Samples Falling Within 1 Per Cent <u>Dockage</u> Ranges, by Crop Reporting District - - -	29
B-18	Percentage Distribution and Number of Carlot Samples Falling Within 0.5 Per Cent <u>Foreign Material</u> Ranges, by Crop Reporting District - - - - -	30
B-19	Percentage Distribution and Number of Carlots Falling Within 1 Per Cent <u>Shrunken</u> and <u>Broken</u> Ranges, by Crop Reporting District - - - - -	31
B-20	Percentage Distribution and Number of Carlot Samples Falling Within 1 Per Cent <u>Damage</u> Ranges, by Crop Reporting District- - - -	32
B-21	Percentage Distribution and Number of Carlot Samples Falling Within 1 Per Cent Ranges of <u>Wheat of Other Classes</u> , by Crop Reporting District - - - - -	33
B-22	Percentage Distribution and Number of Carlot Samples Falling Within 1 Per Cent <u>Other Grains</u> , by Crop Reporting District - - - -	34
B-23	Number of Carlots in Sample Survey Containing Percentage Amounts of <u>Specified Grading Factors</u> , by Grade, Total North Dakota Sample Shipments- - - - -	35

B-1. PERCENTAGE DISTRIBUTION AND NUMBER OF CARLOTS INCLUDED IN 10 PER CENT SAMPLE SURVEY, BY GRADE AND CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

Grade	Crop Reporting District										Per cent
	South- west	West Cent.	North- west	South Cent.	South Cent.	North Cent.	South- east	East Cent.	North- east	STATE TOTAL	
	Number of Carlots										
No. 1 Heavy DNS	84	54	198	88	8	10	--	15	32	489	42.3
No. 1 DNS	26	33	139	44	29	29	--	27	92	419	36.2
No. 2 DNS	1	12	46	5	20	8	--	10	28	130	11.2
No. 3 DNS	--	9	36	2	10	9	--	2	15	83	7.1
No. 4 DNS	--	--	12	1	--	5	--	2	2	22	1.9
No. 5 DNS	--	--	--	--	--	1	--	--	1	2	0.2
Sample Grade DNS	--	--	1	--	1	1	--	--	3	6	0.5
No. 1 Heavy NS	--	--	--	--	--	--	--	--	3	3	0.2
No. 1 NS	--	--	--	--	--	1	--	--	4	5	0.4
ALL GRADES	111	108	432	140	68	64	--	56	180	1,159	100.0

B-2. AVERAGE VALUES AND RANGES FOR PROTEIN CONTENT, BUSHEL WEIGHT AND MOISTURE OF CARLOT SAMPLES OF HARD RED SPRING WHEAT IN WESTERN NORTH DAKOTA, BY GRADE AND CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

SOUTHWEST DISTRICT						
Grade	Protein Content, %		Bushel Weight, lb.		Moisture Content, %	
	Average	Range	Average	Range	Average	No. of Samples
1 Heavy DNS	14.1	13.0-15.6	61.0	60.5-63.0	12.0	83
1 DNS	14.3	12.7-15.8	59.2	58.5-59.8	12.0	27
2 DNS	17.0	-----	57.7	-----	12.5	1
3 DNS	-----	-----	-----	-----	-----	---
4 DNS	-----	-----	-----	-----	-----	---
5 DNS	-----	-----	-----	-----	-----	---
Sample Grade DNS	-----	-----	-----	-----	-----	---
1 Heavy NS	-----	-----	-----	-----	-----	---
1 NS	-----	-----	-----	-----	-----	---
ALL GRADES	14.2	12.7-17.0	60.5	57.7-63.0	12.0	111
WEST CENTRAL DISTRICT						
1 Heavy DNS	13.7	12.6-16.1	60.8	60.0-62.7	12.1	54
1 DNS	14.2	12.6-17.3	58.9	58.0-59.7	12.2	33
2 DNS	15.0	13.0-16.1	57.2	57.0-57.6	12.2	12
3 DNS	16.6	14.8-17.9	56.0	55.2-56.7	11.2	9
4 DNS	-----	-----	-----	-----	-----	---
5 DNS	-----	-----	-----	-----	-----	---
Sample Grade DNS	-----	-----	-----	-----	-----	---
1 Heavy NS	-----	-----	-----	-----	-----	---
1 NS	-----	-----	-----	-----	-----	---
ALL GRADES	14.2	12.6-17.9	59.4	55.2-62.7	12.1	108
NORTHWEST DISTRICT						
1 Heavy DNS	14.2	12.5-16.6	61.0	60.0-63.2	11.5	198
1 DNS	14.9	12.9-17.7	58.9	58.0-59.7	11.6	139
2 DNS	15.5	13.0-17.0	57.5	57.0-60.6	11.4	46
3 DNS	15.6	11.4-17.2	56.6	55.0-60.7	11.3	36
4 DNS	16.2	15.2-17.9	54.1	53.0-55.2	11.3	12
5 DNS	-----	-----	-----	-----	-----	---
Sample Grade DNS	15.4	-----	57.2	-----	11.0	1
1 Heavy NS	-----	-----	-----	-----	-----	---
1 NS	-----	-----	-----	-----	-----	---
ALL GRADES	14.7	12.5-17.9	59.4	53.0-63.2	11.5	432

B-3. AVERAGE VALUES AND RANGES FOR PROTEIN CONTENT, BUSHEL WEIGHT AND MOISTURE OF CARLOT SAMPLES OF HARD RED SPRING WHEAT IN CENTRAL NORTH DAKOTA, BY GRADE AND CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

SOUTH CENTRAL DISTRICT							
Grade	Protein Content, %		Bushel Weight, lb.		Moisture Content, %		No. of Samples
	Average	Range	Average	Range	Average	Range	
1 Heavy DNS	13.1	11.8-14.5	60.8	60.0-63.0	12.5	11.3-14.0	88
1 DNS	13.4	12.0-16.0	59.2	58.0-59.7	12.6	11.0-14.0	44
2 DNS	14.0	12.8-16.0	58.8	57.3-60.7	12.1	11.4-12.7	5
3 DNS	15.2	14.8-15.5	56.8	55.1-58.5	12.4	11.6-13.3	2
4 DNS	17.0	-----	53.7	-----	9.7	-----	1
5 DNS	-----	-----	-----	-----	-----	-----	--
Sample Grade DNS	-----	-----	-----	-----	-----	-----	--
1 Heavy NS	-----	-----	-----	-----	-----	-----	--
1 NS	-----	-----	-----	-----	-----	-----	--
ALL GRADES	13.3	11.8-17.0	60.1	53.7-63.0	12.5	9.7-14.0	140
CENTRAL DISTRICT							
1 Heavy DNS	13.7	12.7-15.0	60.6	60.0-62.1	12.1	11.3-12.8	8
1 DNS	14.1	12.7-15.5	58.5	58.0-59.7	12.5	11.4-13.5	29
2 DNS	13.7	12.8-16.0	57.4	57.0-59.5	13.0	11.6-15.0	20
3 DNS	14.7	13.6-18.4	56.2	55.5-56.7	12.4	10.7-13.2	10
4 DNS	-----	-----	-----	-----	-----	-----	--
5 DNS	-----	-----	-----	-----	-----	-----	--
Sample Grade DNS	14.0	-----	57.0	-----	12.9	-----	1
1 Heavy NS	-----	-----	-----	-----	-----	-----	--
1 NS	-----	-----	-----	-----	-----	-----	--
ALL GRADES	14.0	12.7-18.4	58.1	57.0-62.1	12.6	10.7-15.0	68
NORTH CENTRAL DISTRICT							
1 Heavy DNS	14.1	13.7-14.7	60.2	60.0-60.5	11.7	10.4-12.7	10
1 DNS	14.2	12.5-16.1	58.9	58.1-59.7	11.9	10.5-13.7	29
2 DNS	14.4	13.5-16.8	57.8	57.0-59.7	12.0	11.2-13.1	8
3 DNS	15.2	13.7-16.7	56.6	55.5-58.0	11.9	10.6-13.3	9
4 DNS	15.8	15.4-16.2	54.3	53.5-54.6	11.0	10.5-11.5	5
5 DNS	15.5	-----	51.2	-----	11.6	-----	1
Sample Grade DNS	12.7	-----	59.2	-----	13.3	-----	1
1 Heavy NS	-----	-----	-----	-----	-----	-----	--
1 NS	13.0	-----	59.0	-----	13.2	-----	1
ALL GRADES	14.5	12.5-16.8	58.2	51.2-60.5	11.8	10.4-13.7	64

B-4. AVERAGE VALUES AND RANGES FOR PROTEIN CONTENT, BUSHEL WEIGHT AND MOISTURE OF CARLOT SAMPLES OF HARD RED SPRING WHEAT IN EASTERN NORTH DAKOTA, BY GRADE AND CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962¹

EAST CENTRAL DISTRICT									
Grade	Protein Content, %		Bushel Weight, lb.		Moisture Content, %		Average	Range	Samples
	Average	Range	Average	Range	Average	Range			
1 Heavy DNS	14.2	12.9-14.9	60.5	60.0-60.8	11.8	11.1-12.6			15
1 DNS	13.8	12.7-15.0	58.7	58.0-59.6	12.5	11.0-14.4			27
2 DNS	13.7	12.9-14.8	57.6	57.0-58.3	13.1	11.2-14.5			10
3 DNS	13.8	13.5-14.2	58.4	58.3-58.6	12.9	12.2-13.7			2
4 DNS	13.8	13.8-13.9	58.8	57.5-60.0	12.0	11.3-12.7			2
5 DNS	-----	-----	-----	-----	-----	-----			--
Sample Grade DNS	-----	-----	-----	-----	-----	-----			--
1 Heavy NS	-----	-----	-----	-----	-----	-----			--
1 NS	-----	-----	-----	-----	-----	-----			--
ALL GRADES	13.9	12.7-15.0	59.0	57.0-60.8	12.4	11.0-14.5			56
NORTHEAST DISTRICT									
1 Heavy DNS	13.9	12.3-15.8	60.3	60.0-61.6	12.0	10.5-13.0			32
1 DNS	13.7	12.3-16.2	58.8	58.0-59.7	13.0	10.6-16.0			92
2 DNS	13.6	12.7-14.8	57.5	57.0-60.2	13.2	11.4-15.2			28
3 DNS	13.6	12.5-14.3	56.2	55.2-57.0	13.4	11.4-15.0			15
4 DNS	14.0	13.5-14.5	55.5	54.3-56.7	14.2	14.0-14.4			2
5 DNS	13.4	-----	54.5	-----	14.5	-----			1
Sample Grade DNS	13.0	12.5-13.8	54.1	53.3-55.0	14.9	11.9-16.4			3
1 Heavy NS	10.9	10.7-11.3	61.1	60.5-61.7	12.4	11.4-12.9			3
1 NS	12.2	11.8-12.6	58.9	58.3-59.5	13.1	12.0-13.7			4
ALL GRADES	13.6	10.7-16.2	58.6	53.3-61.7	12.9	10.5-16.4			180

¹No carlot shipments were present from the Southeast Crop Reporting District in the total sample.

B-5. PERCENTAGE DISTRIBUTION AND NUMBER OF CARLOT SAMPLES OF HARD RED SPRING WHEAT FALLING WITHIN 0.5 PER CENT PROTEIN RANGES, BY CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

	Protein Range, Per Cent															
	10.5 to 10.9	11.0 to 11.4	11.5 to 11.9	12.0 to 12.4	12.5 to 12.9	13.0 to 13.4	13.5 to 13.9	14.0 to 14.4	14.5 to 14.9	15.0 to 15.4	15.5 to 15.9	16.0 to 16.4	16.5 to 16.9	17.0 to 17.4	17.5 to 17.9	18.0 to 18.4
C.R.D.	10.9	11.4	11.9	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.4	16.9	17.4	17.9	18.4
S.W.	--	--	--	--	1	10	27	44	15	9	4	--	--	1	--	111
W.C.	--	--	--	--	9	26	20	18	7	9	4	6	4	2	3	108
N.W.	--	1	--	--	8	28	89	76	48	68	45	36	22	7	4	432
S.C.	--	--	1	10	23	68	20	9	2	1	3	2	--	1	--	140
Cent.	--	--	--	--	4	11	20	15	7	7	2	1	--	--	--	68
N.C.	--	--	--	--	3	4	12	17	8	7	6	5	2	--	--	64
S.E.	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E.C.	--	--	--	--	3	6	23	14	9	1	--	--	--	--	--	56
N.E.	2	1	1	4	10	48	53	42	13	4	1	1	--	--	--	180
TOTAL	2	2	2	14	61	201	264	235	109	106	65	51	28	11	7	1,159
Per Cent	0.2	0.2	0.2	1.2	5.3	17.3	22.8	20.3	9.4	9.1	5.6	4.4	2.4	0.9	0.6	0.1

B-6. NUMBER OF CARLOT SAMPLES OF HARD RED SPRING WHEAT FALLING WITHIN 0.5 PER CENT PROTEIN RANGES IN WESTERN NORTH DAKOTA, BY CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

SOUTHWEST DISTRICT																			
		Protein Range, Per Cent																	
		10.5 to	11.0 to	11.5 to	12.0 to	12.5 to	13.0 to	13.5 to	14.0 to	14.5 to	15.0 to	15.5 to	16.0 to	16.5 to	17.0 to	17.5 to	18.0 to		
Grade		10.9	11.4	11.9	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.4	16.9	17.4	17.9	18.4	TOTAL	
1 Heavy	DNS	--	--	--	--	--	9	23	31	11	7	2	--	--	--	--	--	83	
1 DNS		--	--	--	--	1	1	4	13	4	2	2	--	--	--	--	--	27	
2 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	
3 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
5 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
S. G.	DNS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1 Heavy	NS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1 NS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TOTAL		--	--	--	--	1	10	27	44	15	9	4	--	--	1	--	--	111	
WEST CENTRAL DISTRICT																			
1 Heavy	DNS	--	--	--	--	7	15	14	10	3	4	--	1	--	--	--	--	54	
1 DNS		--	--	--	--	2	10	5	6	1	3	1	2	2	1	--	--	33	
2 DNS		--	--	--	--	--	1	1	2	2	1	2	3	--	--	--	--	12	
3 DNS		--	--	--	--	--	--	--	--	1	1	1	--	2	1	3	--	9	
4 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
5 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
S. G.	DNS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1 Heavy	NS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1 NS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TOTAL		--	--	--	--	9	26	20	18	7	9	4	6	4	2	3	--	108	
NORTHWEST DISTRICT																			
1 Heavy	DNS	--	--	--	--	7	13	60	56	29	21	8	1	3	--	--	--	198	
1 DNS		--	--	--	--	1	13	23	19	13	26	17	18	5	2	2	--	139	
2 DNS		--	--	--	--	--	2	3	1	5	7	10	10	7	1	--	--	46	
3 DNS		--	1	--	--	--	--	3	--	1	10	9	3	5	4	--	--	36	
4 DNS		--	--	--	--	--	--	--	--	--	3	1	4	2	--	2	--	12	
5 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
S. G.	DNS	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1	
1 Heavy	NS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1 NS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TOTAL		--	1	--	--	8	28	89	76	48	68	45	36	22	7	4	--	432	

B-7. NUMBER OF CARLOT SAMPLES OF HARD RED SPRING WHEAT FALLING WITHIN 0.5 PER CENT PROTEIN RANGES IN CENTRAL NORTH DAKOTA, BY CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

		SOUTH CENTRAL DISTRICT																	
		Protein Range, Per Cent																	
		10.5 to 10.9	11.0 to 11.4	11.5 to 11.9	12.0 to 12.4	12.5 to 12.9	13.0 to 13.4	13.5 to 13.9	14.0 to 14.4	14.5 to 14.9	15.0 to 15.4	15.5 to 15.9	16.0 to 16.4	16.5 to 16.9	17.0 to 17.4	17.5 to 17.9	18.0 to 18.4		
Grade		10.9	11.4	11.9	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.4	16.9	17.4	17.9	18.4	TOTAL	
1 Heavy DNS		--	--	1	8	13	49	13	3	1	--	--	--	--	--	--	--	88	
1 DNS		--	--	--	2	9	17	7	6	--	--	2	1	--	--	--	--	44	
2 DNS		--	--	--	--	1	2	--	--	--	1	--	1	--	--	--	--	5	
3 DNS		--	--	--	--	--	--	--	--	1	--	1	--	--	--	--	--	2	
4 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	
5 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
S. G. DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1 Heavy NS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1 NS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TOTAL		--	--	1	10	23	68	20	9	2	1	3	2	--	1	--	--	140	

		CENTRAL DISTRICT																	
		10.5 to 10.9	11.0 to 11.4	11.5 to 11.9	12.0 to 12.4	12.5 to 12.9	13.0 to 13.4	13.5 to 13.9	14.0 to 14.4	14.5 to 14.9	15.0 to 15.4	15.5 to 15.9	16.0 to 16.4	16.5 to 16.9	17.0 to 17.4	17.5 to 17.9	18.0 to 18.4	TOTAL	
1 Heavy DNS		--	--	--	--	1	3	1	1	--	2	--	--	--	--	--	--	8	
1 DNS		--	--	--	--	1	5	9	5	2	5	2	--	--	--	--	--	29	
2 DNS		--	--	--	--	2	3	7	6	1	--	--	1	--	--	--	--	20	
3 DNS		--	--	--	--	--	--	3	2	4	--	--	--	--	--	--	1	10	
4 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
5 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
S. G. DNS		--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	1	
1 Heavy NS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1 NS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TOTAL		--	--	--	--	4	11	20	15	7	7	2	1	--	--	--	1	68	

		NORTH CENTRAL DISTRICT																	
		10.5 to 10.9	11.0 to 11.4	11.5 to 11.9	12.0 to 12.4	12.5 to 12.9	13.0 to 13.4	13.5 to 13.9	14.0 to 14.4	14.5 to 14.9	15.0 to 15.4	15.5 to 15.9	16.0 to 16.4	16.5 to 16.9	17.0 to 17.4	17.5 to 17.9	18.0 to 18.4	TOTAL	
1 Heavy DNS		--	--	--	--	--	--	4	4	2	--	--	--	--	--	--	--	10	
1 DNS		--	--	--	--	2	3	6	8	3	3	1	3	--	--	--	--	29	
2 DNS		--	--	--	--	--	--	1	4	2	--	--	--	1	--	--	--	8	
3 DNS		--	--	--	--	--	--	1	1	1	3	1	1	1	--	--	--	9	
4 DNS		--	--	--	--	--	--	--	--	--	1	3	1	--	--	--	--	5	
5 DNS		--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1	
S. G. DNS		--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	
1 Heavy NS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1 NS		--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	
TOTAL		--	--	--	--	3	4	12	17	8	7	6	5	2	--	--	--	64	

B-8. NUMBER OF CARLOT SAMPLES OF HARD RED SPRING WHEAT FALLING WITHIN 0.5 PER CENT PROTEIN RANGES IN EASTERN NORTH DAKOTA, BY CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962¹

		EAST CENTRAL DISTRICT																	
		Protein Range, Per Cent																	
		10.5 to	11.0 to	11.5 to	12.0 to	12.5 to	13.0 to	13.5 to	14.0 to	14.5 to	15.0 to	15.5 to	16.0 to	16.5 to	17.0 to	17.5 to	18.0 to		
Grade		10.9 to	11.4 to	11.9 to	12.4 to	12.9 to	13.4 to	13.9 to	14.4 to	14.9 to	15.4 to	15.9 to	16.4 to	16.9 to	17.4 to	17.9 to	18.4 to	TOTAL	
1 Heavy DNS	--	--	--	--	1	1	1	2	6	5	--	--	--	--	--	--	--	15	
1 DNS	--	--	--	--	1	2	2	15	6	2	1	--	--	--	--	--	--	27	
2 DNS	--	--	--	--	1	3	3	3	1	2	--	--	--	--	--	--	--	10	
3 DNS	--	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	2	
4 DNS	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	2	
5 DNS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
S. G. DNS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1 Heavy NS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1 NS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TOTAL	--	--	--	--	3	6	6	23	14	9	1	--	--	--	--	--	--	56	

		NORTHEAST DISTRICT																	
		Protein Range, Per Cent																	
		10.5 to	11.0 to	11.5 to	12.0 to	12.5 to	13.0 to	13.5 to	14.0 to	14.5 to	15.0 to	15.5 to	16.0 to	16.5 to	17.0 to	17.5 to	18.0 to		
Grade		10.9 to	11.4 to	11.9 to	12.4 to	12.9 to	13.4 to	13.9 to	14.4 to	14.9 to	15.4 to	15.9 to	16.4 to	16.9 to	17.4 to	17.9 to	18.4 to	TOTAL	
1 Heavy DNS	--	--	--	--	1	7	6	6	10	3	3	1	--	--	--	--	--	32	
1 DNS	--	--	--	1	2	30	38	8	23	6	1	--	1	--	--	--	--	92	
2 DNS	--	--	--	--	3	8	8	6	6	3	--	--	--	--	--	--	--	28	
3 DNS	--	--	--	--	1	2	9	3	3	--	--	--	--	--	--	--	--	15	
4 DNS	--	--	--	--	--	--	1	--	--	1	--	--	--	--	--	--	--	2	
5 DNS	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	
S. G. DNS	--	--	--	--	2	--	1	--	--	--	--	--	--	--	--	--	--	3	
1 Heavy NS	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	
1 NS	--	--	1	2	1	--	--	--	--	--	--	--	--	--	--	--	--	4	
TOTAL	2	1	1	4	10	48	53	42	42	13	4	1	1	--	--	--	--	180	

¹No carlot shipments were present from the Southeast Crop Reporting District in the total sample.

B-9. PERCENTAGE DISTRIBUTION AND NUMBER OF CARLOT SAMPLES OF HARD RED SPRING WHEAT FALLING WITHIN 1 POUND BUSHEL WEIGHT RANGES, BY CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

Crop Reporting District	Bushel Weight, Lb.													TOTAL
	51	52	53	54	55	56	57	58	59	60	61	62	63	
Southwest	--	--	--	--	--	--	1	6	21	33	39	10	1	111
West Central	--	--	--	--	3	6	12	14	19	31	21	2	--	108
Northwest	--	--	3	8	5	25	45	65	79	101	68	30	3	432
South Central	--	--	1	--	1	--	2	10	36	55	23	11	1	140
Central	--	--	--	--	2	8	20	20	10	6	1	1	--	68
North Central	1	--	1	4	1	7	6	14	20	10	--	--	--	64
Southeast	--	--	--	--	--	--	--	--	--	--	--	--	--	---
East Central	--	--	--	--	--	--	10	19	11	13	3	--	--	56
Northeast	--	--	<u>1</u>	<u>3</u>	<u>4</u>	<u>12</u>	<u>26</u>	<u>48</u>	<u>50</u>	<u>30</u>	<u>6</u>	<u>--</u>	<u>--</u>	<u>180</u>
STATE TOTAL	1	--	6	15	16	58	122	196	246	279	161	54	5	1,159
Percentage Distribution	0.1	--	0.5	1.3	1.4	5.1	10.5	16.9	21.2	24.1	13.9	4.6	0.4	100.0

B-10. NUMBER OF CARLOT SAMPLES OF HARD RED SPRING WHEAT FALLING WITHIN 1 POUND BUSHEL WEIGHT RANGES IN WESTERN NORTH DAKOTA, BY GRADE AND CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

SOUTHWEST DISTRICT													
Grade	51	52	53	54	55	56	57	58	59	60	61	62	TOTAL
1 Heavy DNS	--	--	--	--	--	--	--	--	--	33	39	10	83
1 DNS	--	--	--	--	--	--	--	6	21	--	--	--	27
2 DNS	--	--	--	--	--	--	1	--	--	--	--	--	1
3 DNS	--	--	--	--	--	--	--	--	--	--	--	--	--
4 DNS	--	--	--	--	--	--	--	--	--	--	--	--	--
5 DNS	--	--	--	--	--	--	--	--	--	--	--	--	--
S. G. DNS	--	--	--	--	--	--	--	--	--	--	--	--	--
1 Heavy NS	--	--	--	--	--	--	--	--	--	--	--	--	--
1 NS	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL	--	--	--	--	--	--	1	6	21	33	39	10	111
WEST CENTRAL DISTRICT													
1 Heavy DNS	--	--	--	--	--	--	--	--	--	31	21	2	54
1 DNS	--	--	--	--	--	--	--	14	19	--	--	--	33
2 DNS	--	--	--	--	--	--	12	--	--	--	--	--	12
3 DNS	--	--	--	--	3	6	--	--	--	--	--	--	9
4 DNS	--	--	--	--	--	--	--	--	--	--	--	--	--
5 DNS	--	--	--	--	--	--	--	--	--	--	--	--	--
S. G. DNS	--	--	--	--	--	--	--	--	--	--	--	--	--
1 Heavy NS	--	--	--	--	--	--	--	--	--	--	--	--	--
1 NS	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL	--	--	--	--	3	6	12	14	19	31	21	2	108
NORTHWEST DISTRICT													
1 Heavy DNS	--	--	--	--	--	--	--	--	--	97	68	30	198
1 DNS	--	--	--	--	--	--	--	62	77	--	--	--	139
2 DNS	--	--	--	--	--	--	41	1	2	2	--	--	46
3 DNS	--	--	--	--	4	25	3	2	--	2	--	--	36
4 DNS	--	--	3	8	1	--	--	--	--	--	--	--	12
5 DNS	--	--	--	--	--	--	--	--	--	--	--	--	--
S. G. DNS	--	--	--	--	--	--	1	--	--	--	--	--	1
1 Heavy NS	--	--	--	--	--	--	--	--	--	--	--	--	--
1 NS	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL	--	--	3	8	5	25	45	65	79	101	68	30	432

B-11. NUMBER OF CARLOT SAMPLES OF HARD RED SPRING WHEAT FALLING WITHIN 1 POUND BUSHEL WEIGHT RANGES IN CENTRAL NORTH DAKOTA, BY GRADE AND CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

SOUTH CENTRAL DISTRICT													
Grade	51	52	53	54	55	56	57	58	59	60	61	62	TOTAL
1 Heavy DNS	--	--	--	--	--	--	--	--	--	53	23	11	88
1 DNS	--	--	--	--	--	--	--	8	36	--	--	--	44
2 DNS	--	--	--	--	--	--	2	1	--	2	--	--	5
3 DNS	--	--	--	--	1	--	--	1	--	--	--	--	2
4 DNS	--	--	1	--	--	--	--	--	--	--	--	--	1
5 DNS	--	--	--	--	--	--	--	--	--	--	--	--	--
S. G. DNS	--	--	--	--	--	--	--	--	--	--	--	--	--
1 Heavy NS	--	--	--	--	--	--	--	--	--	--	--	--	--
1 NS	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL	--	--	1	--	1	--	2	10	36	55	23	11	140
CENTRAL DISTRICT													
1 Heavy DNS	--	--	--	--	--	--	--	--	--	6	1	1	8
1 DNS	--	--	--	--	--	--	--	20	9	--	--	--	29
2 DNS	--	--	--	--	--	--	19	--	1	--	--	--	20
3 DNS	--	--	--	--	2	8	--	--	--	--	--	--	10
4 DNS	--	--	--	--	--	--	--	--	--	--	--	--	--
5 DNS	--	--	--	--	--	--	--	--	--	--	--	--	--
S. G. DNS	--	--	--	--	--	--	1	--	--	--	--	--	1
1 Heavy NS	--	--	--	--	--	--	--	--	--	--	--	--	--
1 NS	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL	--	--	--	--	2	8	20	20	10	6	1	1	68
NORTH CENTRAL DISTRICT													
1 Heavy DNS	--	--	--	--	--	--	--	--	--	10	--	--	10
1 DNS	--	--	--	--	--	--	--	12	17	--	--	--	29
2 DNS	--	--	--	--	--	--	6	1	1	--	--	--	8
3 DNS	--	--	--	--	1	7	--	1	--	--	--	--	9
4 DNS	--	--	1	4	--	--	--	--	--	--	--	--	5
5 DNS	1	--	--	--	--	--	--	--	--	--	--	--	1
S. G. DNS	--	--	--	--	--	--	--	--	1	--	--	--	1
1 Heavy NS	--	--	--	--	--	--	--	--	--	--	--	--	--
1 NS	--	--	--	--	--	--	--	--	1	--	--	--	1
TOTAL	1	--	1	4	1	7	6	14	20	10	--	--	64

B-12. NUMBER OF CARLOT SAMPLES OF HARD RED SPRING WHEAT FALLING WITHIN 1 POUND BUSHEL WEIGHT RANGES IN EASTERN NORTH DAKOTA, BY GRADE AND CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962¹

EAST CENTRAL DISTRICT												
Grade	Bushel Weight, Lb.											
	51	52	53	54	55	56	57	58	59	60	61	TOTAL
1 Heavy DNS	--	--	--	--	--	--	--	--	--	12	3	15
1 DNS	--	--	--	--	--	--	--	16	11	--	--	27
2 DNS	--	--	--	--	--	--	9	1	--	--	--	10
3 DNS	--	--	--	--	--	--	--	2	--	--	--	2
4 DNS	--	--	--	--	--	--	1	--	--	1	--	2
5 DNS	--	--	--	--	--	--	--	--	--	--	--	--
S. G. DNS	--	--	--	--	--	--	--	--	--	--	--	--
1 Heavy NS	--	--	--	--	--	--	--	--	--	--	--	--
1 NS	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL	--	--	--	--	--	--	10	19	11	13	3	56

NORTHEAST												
Grade	Bushel Weight, Lb.											
	51	52	53	54	55	56	57	58	59	60	61	TOTAL
1 Heavy DNS	--	--	--	--	--	--	--	--	--	28	4	32
1 DNS	--	--	--	--	--	--	--	45	47	--	--	92
2 DNS	--	--	--	--	--	--	25	1	1	1	--	28
3 DNS	--	--	--	--	3	11	1	--	--	--	--	15
4 DNS	--	--	--	1	--	1	--	--	--	--	--	2
5 DNS	--	--	--	1	--	--	--	--	--	--	--	1
S. G. DNS	--	--	1	1	1	--	--	--	--	--	--	3
1 Heavy NS	--	--	--	--	--	--	--	--	--	1	2	3
1 NS	--	--	--	--	--	--	--	2	2	--	--	4
TOTAL	--	--	1	3	4	12	26	48	50	30	6	180

¹No carlot shipments were present from the Southeast Crop Reporting District in the total sample.

B-13. PERCENTAGE DISTRIBUTION AND NUMBER OF CARLOT SAMPLES OF HARD RED SPRING WHEAT FALLING WITHIN 0.5 PER CENT MOISTURE CONTENT RANGES, BY CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

Crop Reporting District	Moisture Range, Per Cent																TOTAL
	9.5 to 9.9	10.0 to 10.4	10.5 to 10.9	11.0 to 11.4	11.5 to 11.9	12.0 to 12.4	12.5 to 12.9	13.0 to 13.4	13.5 to 13.9	14.0 to 14.4	14.5 to 14.9	15.0 to 15.4	15.5 to 15.9	16.0 to 16.4			
Southwest	--	1	2	14	40	30	18	3	3	--	--	--	--	--	111		
West Central	--	1	7	15	19	38	12	11	2	2	1	--	--	--	108		
Northwest	6	25	75	124	97	57	28	11	4	3	2	--	--	--	432		
South Central	1	--	--	10	17	41	37	22	9	3	--	--	--	--	140		
Central	--	--	1	2	6	17	26	9	5	1	--	1	--	--	68		
North Central	--	1	6	11	18	15	6	6	1	--	--	--	--	--	64		
Southeast	--	--	--	--	--	--	--	--	--	--	--	--	--	--	---		
East Central	--	--	--	10	7	16	7	7	5	3	1	--	--	--	56		
Northeast	--	--	4	12	13	38	34	22	22	13	14	5	--	3	180		
STATE TOTAL	7	28	95	198	217	252	168	91	51	25	18	6	--	3	1,159		
Percentage Distribution	0.6	2.4	8.2	17.1	18.7	21.7	14.6	7.8	4.4	2.2	1.6	0.5	--	0.2	100		

B-14. NUMBER OF CARLOT SAMPLES OF HARD RED SPRING WHEAT FALLING WITHIN 0.5 PER CENT MOISTURE CONTENT RANGES IN WESTERN NORTH DAKOTA, BY GRADE AND CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

		SOUTHWEST DISTRICT																	
		Moisture Range, Per Cent																	
		9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0				
Grade		to	to	to	to	to	to	to	to	to	to	to	to	to	to				
		9.9	10.4	10.9	11.4	11.9	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.4	TOTAL			
1 Heavy DNS		--	--	2	12	30	21	13	2	3	--	--	--	--	--	83			
1 DNS		--	1	--	2	10	9	4	1	--	--	--	--	--	--	27			
2 DNS		--	--	--	--	--	--	1	--	--	--	--	--	--	--	1			
3 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
4 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
5 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
S. G. DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
1 Heavy NS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
1 NS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
TOTAL		--	1	2	14	40	30	18	3	3	--	--	--	--	--	111			

		WEST CENTRAL DISTRICT																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 Heavy DNS		--	--	2	7	10	20	7	7	--	1	--	--	--	--	--	--	--	54
1 DNS		--	--	2	2	7	11	5	4	2	--	--	--	--	--	--	--	--	33
2 DNS		--	1	1	1	1	6	--	--	--	1	1	--	--	--	--	--	--	12
3 DNS		--	--	2	5	1	1	--	--	--	--	--	--	--	--	--	--	--	9
4 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
S. G. DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1 Heavy NS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1 NS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL		--	1	7	15	19	38	12	11	2	2	1	--	--	--	--	--	--	108

		NORTHWEST DISTRICT																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 Heavy DNS		1	12	37	56	43	29	11	5	1	1	2	--	--	--	--	--	--	198
1 DNS		2	9	19	35	35	17	14	5	2	1	--	--	--	--	--	--	--	139
2 DNS		1	2	9	18	10	--	3	1	1	1	--	--	--	--	--	--	--	46
3 DNS		1	2	8	11	5	9	--	--	--	--	--	--	--	--	--	--	--	36
4 DNS		1	--	2	3	4	2	--	--	--	--	--	--	--	--	--	--	--	12
5 DNS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
S. G. DNS		--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1
1 Heavy NS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1 NS		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL		6	25	75	124	97	57	28	11	4	3	2	--	--	--	--	--	--	432

B-15. NUMBER OF CARLOT SAMPLES OF HARD RED SPRING WHEAT FALLING WITHIN 0.5 PER CENT MOISTURE CONTENT RANGES IN CENTRAL NORTH DAKOTA, BY GRADE AND CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

		SOUTH CENTRAL DISTRICT																	
		Moisture Range, Per Cent																	
		9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0				
Grade		to	to	to	to	to	to	to	to	to	to	to	to	to	to				
		9.9	10.4	10.9	11.4	11.9	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.4	TOTAL			
1 Heavy DNS	--	--	--	--	6	11	31	21	11	6	2	--	--	--	--	88	--	--	--
1 DNS	--	--	--	--	3	4	9	14	10	3	1	--	--	--	--	44	--	--	--
2 DNS	--	--	--	--	1	1	1	2	--	--	--	--	--	--	--	5	--	--	--
3 DNS	--	--	--	--	--	1	--	--	1	--	--	--	--	--	--	2	--	--	--
4 DNS	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
5 DNS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
S. G. DNS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1 Heavy NS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1 NS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL	1	--	--	--	10	17	41	37	22	9	3	--	--	--	--	140	--	--	--
CENTRAL DISTRICT																			
1 Heavy DNS	--	--	--	--	1	2	2	3	--	--	--	--	--	--	--	8	--	--	--
1 DNS	--	--	--	--	1	2	11	10	2	3	--	--	--	--	--	29	--	--	--
2 DNS	--	--	--	--	--	2	2	7	5	2	1	--	1	--	--	20	--	--	--
3 DNS	--	--	--	1	--	--	2	5	2	--	--	--	--	--	--	10	--	--	--
4 DNS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5 DNS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
S. G. DNS	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--
1 Heavy NS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1 NS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL	--	--	1	1	2	6	17	26	9	5	1	--	1	--	--	68	--	--	--
NORTH CENTRAL DISTRICT																			
1 Heavy DNS	--	1	1	1	1	1	4	2	--	--	--	--	--	--	--	10	--	--	--
1 DNS	--	--	2	4	10	8	8	2	2	1	--	--	--	--	--	29	--	--	--
2 DNS	--	--	--	2	3	1	1	1	1	--	--	--	--	--	--	8	--	--	--
3 DNS	--	--	1	2	2	2	2	1	1	--	--	--	--	--	--	9	--	--	--
4 DNS	--	--	2	2	2	1	--	--	--	--	--	--	--	--	--	5	--	--	--
5 DNS	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	1	--	--	--
S. G. DNS	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--
1 Heavy NS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1 NS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL	--	1	6	11	18	15	6	6	6	1	--	--	--	--	--	64	--	--	--

B-16. NUMBER OF CARLOT SAMPLES OF HARD RED SPRING WHEAT FALLING WITHIN 0.5 PER CENT MOISTURE CONTENT RANGES IN EASTERN NORTH DAKOTA, BY GRADE AND CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962¹

		EAST CENTRAL DISTRICT																	
		Moisture Range, Per Cent																	
		9.5 to	10.0 to	10.5 to	11.0 to	11.5 to	12.0 to	12.5 to	13.0 to	13.5 to	14.0 to	14.5 to	15.0 to	15.5 to	16.0 to				
Grade		9.9	10.4	10.9	11.4	11.9	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.4	TOTAL			
1 Heavy DNS	--	--	--	--	6	3	5	1	--	--	--	--	--	--	--	15	--	--	15
1 DNS	--	--	--	--	2	2	10	5	4	3	1	--	--	--	--	27	--	--	27
2 DNS	--	--	--	--	1	2	--	--	3	1	2	1	--	--	--	10	--	--	10
3 DNS	--	--	--	--	--	--	1	--	--	1	--	--	--	--	--	2	--	--	2
4 DNS	--	--	--	--	1	--	--	1	--	--	--	--	--	--	--	2	--	--	2
5 DNS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
S. G. DNS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1 Heavy NS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1 NS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL	--	--	--	--	10	7	16	7	7	5	3	1	--	--	--	56	--	--	56

		NORTHEAST DISTRICT																	
		Moisture Range, Per Cent																	
		9.5 to	10.0 to	10.5 to	11.0 to	11.5 to	12.0 to	12.5 to	13.0 to	13.5 to	14.0 to	14.5 to	15.0 to	15.5 to	16.0 to				
Grade		9.9	10.4	10.9	11.4	11.9	12.4	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.4	TOTAL			
1 Heavy DNS	--	--	2	2	4	5	14	6	1	--	--	--	--	--	--	32	--	--	32
1 DNS	--	--	2	2	5	6	14	20	14	15	4	8	3	--	1	92	--	--	92
2 DNS	--	--	--	--	1	1	5	5	5	4	4	2	1	--	--	28	--	--	28
3 DNS	--	--	--	--	1	--	4	1	1	1	3	3	1	--	--	15	--	--	15
4 DNS	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	2	--	--	2
5 DNS	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	1	--	--	1
S. G. DNS	--	--	--	--	--	1	--	--	--	--	--	--	--	--	2	3	--	--	3
1 Heavy NS	--	--	--	--	1	--	--	2	--	--	--	--	--	--	--	3	--	--	3
1 NS	--	--	--	--	--	--	1	--	1	2	--	--	--	--	--	4	--	--	4
TOTAL	--	--	4	12	13	13	38	34	22	22	13	14	5	--	3	180	--	--	180

¹No carlot shipments were present from the Southeast Crop Reporting District in the total sample.

B-17. PERCENTAGE DISTRIBUTION AND NUMBER OF CARLOT SAMPLES OF HARD RED SPRING WHEAT FALLING WITHIN 1 PER CENT DOCKAGE RANGES, BY CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

Crop Reporting District	Dockage													
	None	1	2	3	4	5	6	7	TOTAL					
	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent						
Southwest	99	11	1	--	--	--	--	--	111					
West Central	66	34	3	4	1	--	--	--	108					
Northwest	272	142	15	1	1	--	1	--	432					
South Central	107	30	3	--	--	--	--	--	140					
Central	44	23	--	1	--	--	--	--	68					
North Central	39	20	3	2	--	--	--	--	64					
Southeast	--	--	--	--	--	--	--	--	---					
East Central	32	22	1	--	--	--	--	1	56					
Northeast	85	79	6	5	3	1	1	--	180					
STATE TOTAL	744	361	32	13	5	1	2	1	1,159					
Percentage Distribution	64.2	31.1	2.8	1.1	0.4	0.1	0.2	0.1	100.0					

B-18. PERCENTAGE DISTRIBUTION AND NUMBER OF CARLOT SAMPLES OF HARD RED SPRING WHEAT FALLING WITHIN 0.5 PER CENT FOREIGN MATERIAL RANGES, BY CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

Crop Reporting District	None	Foreign Material Range, Per Cent															TOTAL
		0.1 to 0.4	0.5 to 0.9	1.0 to 1.4	1.5 to 1.9	2.0 to 2.4	2.5 to 2.9	3.0 to 3.4	3.5 to 3.9	4.0 to 4.4	4.5 to 4.9	5.0 to 5.4	5.5 to 5.9	6.0 to 6.4	6.5 to 6.9		
Southwest	111	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	111
W. Central	108	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	108
Northwest	422	--	3	3	2	--	1	--	--	--	--	1	--	--	--	--	432
S. Central	137	--	2	--	1	--	--	--	--	--	--	--	--	--	--	--	140
Central	66	--	--	1	--	--	--	--	--	--	--	--	--	--	1	--	68
N. Central	58	--	3	2	--	1	--	--	--	--	--	--	--	--	--	--	64
Southeast	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	---
E. Central	53	--	--	1	1	--	1	--	--	--	--	--	--	--	--	--	56
Northeast	<u>177</u>	--	<u>2</u>	<u>1</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>180</u>
STATE TOTAL	1,132	--	10	8	4	1	2	--	--	--	--	1	--	--	1	--	1,159
Percentage Distribution	97.7	--	0.8	0.7	0.3	0.1	0.2	--	--	--	--	0.1	--	--	0.1	--	100.0

B-19. PERCENTAGE DISTRIBUTION AND NUMBER OF CARLOTS OF HARD RED SPRING WHEAT FALLING WITHIN 1 PER CENT SHRUNKEN AND BROKEN RANGES, BY CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

Crop Reporting District	Shrunken and Broken Range, Per Cent												TOTAL
	0.1 to 0.9	1.0 to 1.9	2.0 to 2.9	3.0 to 3.9	4.0 to 4.9	5.0 to 5.9	6.0 to 6.9	7.0 to 7.9	8.0 to 8.9	9.0 to 9.9	10.0 to 10.9		
None													
Southwest	111	--	--	--	--	--	--	--	--	--	--	111	
West Central	108	--	--	--	--	--	--	--	--	--	--	108	
Northwest	430	--	--	--	--	--	--	--	1	--	1	432	
South Central	140	--	--	--	--	--	--	--	--	--	--	140	
Central	68	--	--	--	--	--	--	--	--	--	--	68	
North Central	64	--	--	--	--	--	--	--	--	--	--	64	
Southeast	---	--	--	--	--	--	--	--	--	--	--	---	
East Central	56	--	--	--	--	--	--	--	--	--	--	56	
Northeast	<u>180</u>	--	--	--	--	--	--	--	--	--	--	<u>180</u>	
STATE TOTAL	1,157	--	--	--	--	--	--	--	1	--	1	1,159	
Percentage Distribution	99.8	--	--	--	--	--	--	--	0.1	--	0.1	100.0	

1962 crop

B-20. PERCENTAGE DISTRIBUTION AND NUMBER OF CARLOT SAMPLES OF HARD RED SPRING WHEAT FALLING WITHIN 1 PER CENT DAMAGE RANGES, BY CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

Crop Reporting District	Damage Range, Per Cent												TOTAL
	None	0.1 to 0.9	1.0 to 1.9	2.0 to 2.9	3.0 to 3.9	4.0 to 4.9	5.0 to 5.9	6.0 to 6.9	7.0 to 7.9	8.0 to 8.9	9.0 to 9.9	10.0 to 10.9	
Southwest	111	--	--	--	--	--	--	--	--	--	--	--	111
West Central	108	--	--	--	--	--	--	--	--	--	--	--	108
Northwest	431	--	--	1	--	--	--	--	--	--	--	--	432
South Central	140	--	--	--	--	--	--	--	--	--	--	--	140
Central	66	--	--	--	--	2	--	--	--	--	--	--	68
North Central	63	--	1	--	--	--	--	--	--	--	--	--	64
Southeast	---	--	--	--	--	--	--	--	--	--	--	--	---
East Central	53	1	--	1	--	--	--	--	--	--	--	1	56
Northeast	<u>163</u>	--	<u>1</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>--</u>	<u>--</u>	<u>3</u>	<u>180</u>
STATE TOTAL	1,135	1	2	6	3	4	1	1	2	--	--	4	1,159
Percentage Distribution	97.9	0.1	0.2	0.6	0.2	0.3	0.1	0.1	0.2	--	--	0.3	100.0

B-22. PERCENTAGE DISTRIBUTION AND NUMBER OF CARLOT SAMPLES OF HARD RED SPRING WHEAT FALLING WITHIN 1 PER CENT RANGES OF OTHER GRAINS, BY CROP REPORTING DISTRICT, JULY THROUGH DECEMBER, 1962

Crop Reporting District	None	Other Grain Content Range, Per Cent										TOTAL
		0.1 to 0.9	1.0 to 1.9	2.0 to 2.9	3.0 to 3.9	4.0 to 4.9	5.0 to 5.9	6.0 to 6.9	7.0 to 7.9	8.0 to 8.9	9.0 to 9.9	10.0 to 10.9
Southwest	111	--	--	--	--	--	--	--	--	--	--	111
West Central	108	--	--	--	--	--	--	--	--	--	--	108
Northwest	431	--	--	--	--	1	--	--	--	--	--	432
South Central	140	--	--	--	--	--	--	--	--	--	--	140
Central	68	--	--	--	--	--	--	--	--	--	--	68
North Central	64	--	--	--	--	--	--	--	--	--	--	64
Southeast	---	--	--	--	--	--	--	--	--	--	--	---
East Central	56	--	--	--	--	--	--	--	--	--	--	56
Northeast	180	--	--	--	--	--	--	--	--	--	--	180
STATE TOTAL	1,158	--	--	--	--	1	--	--	--	--	--	1,159
Percentage Distribution	99.9	--	--	--	--	0.1	--	--	--	--	--	100.0

B-23. NUMBER OF CARLOTS IN SAMPLE SURVEY CONTAINING PERCENTAGE AMOUNTS OF SPECIFIED GRADING FACTORS, BY GRADE, TOTAL NORTH DAKOTA SAMPLE SHIPMENTS, JULY THROUGH DECEMBER, 1962

Grades													
No. 1 Heavy D.N.S.		No. 2 D.N.S.		No. 3 D.N.S.		No. 4 D.N.S.		No. 5 D.N.S.		Sample Grade D.N.S.		No. 1 Heavy N.S.	
No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.	No.	Amt.
DOCKAGE													
97	1.0	148	1.0	60	1.0	34	1.0	13	1.0	1	1.0	5	1.0
10	2.0	10	2.0	7	2.0	3	2.0	1	2.0			1	2.0
3	3.0	7	3.0	2	3.0	1	3.0					1	6.0
1	4.0	1	4.0	2	4.0	1	4.0						
		1	5.0	1	6.0								
				1	7.0								
FOREIGN MATERIAL													
		5	0.5	2	0.6	1	1.3	2	2.5			1	5.7
		1	4.5	2	0.8	1	1.5					1	8.8
				1	0.9	2	1.8						
				7	1.0	1	2.0						
SHRUNKEN AND BROKEN													
				1	8.0	1	10.0						
DAMAGE													
		3	2.0	2	1.0	1	0.3	1	2.8	1	10.4	1	6.0
				1	2.0	1	2.0	2	10.0			1	7.0
				3	3.0	1	5.0					1	10.8
				4	4.0	1	7.0						

(continued)

B-23. (Continued)

Grades									
No. 1 Heavy D.N.S.	No. 1 D.N.S.	No. 2 D.N.S.	No. 3 D.N.S.	No. 4 D.N.S.	No. 5 D.N.S.	Sample Grade D.N.S.	Heavy N.S.	No. 1 N.S.	
No. Amt.	No. Amt.	No. Amt.	No. Amt.	No. Amt.	No. Amt.	No. Amt.	No. Amt.	No. Amt.	No. Amt.
OTHER WHEAT ¹									
1	1.0	1	1.7	4	3.0				
		1	2.0						
OTHER GRAINS ²									
				1	4.0				
TOUGH ³									
3	14.8	1	14.7	1	14.9				
1	14.9	1	15.0	1	15.0				
3	15.0	1	15.2						
1	16.0								

¹The wheat of other classes contained in each of the total seven carlots was durum except two of the carlots grading No. 3 D.N.S. which contained hard red winter wheat.

²The other grain contained in the one carlot was flax.

³Moisture content shown as amount. Tough wheat is hard red spring wheat which contains more than 14.5 per cent but not more than 16.0 per cent moisture.