



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

PRICING AND MARKETING PRACTICES FOR
NORTH DAKOTA DURUM AND HRS WHEAT
1989 CROP YEAR

Jay T. Hesley
William W. Wilson

Department of Agricultural Economics • Agricultural Experiment Station
North Dakota State University • Fargo, ND 58105-5636

Table of Contents

	Page
List of Tables	iii
List of Figures	v
Highlights	vii
Introduction	1
General Characteristics of Participating Elevators	1
Premiums and Discounts	2
Economics of Dockage Removal	2
References	3
Appendix A	5
Appendix B	21
Appendix C	29

List of Tables

Table		Page
1	NUMBER AND PERCENTAGE OF RESPONSES FROM NINE REGIONS ACROSS NORTH DAKOTA, 1989	7
2	ORGANIZATIONAL STRUCTURE OF RESPONDING ELEVATORS, 1989 .	7
3	LOAD-OUT CAPACITY OF RESPONDING ELEVATORS, 1989	8
4	DISTANCE TO NEAREST COMPETITION OF RESPONDING ELEVATORS, 1989	8
5	STORAGE CAPACITY OF RESPONDING ELEVATORS, 1989	9
6	AVERAGE BOARD PRICE FOR NO. 1 HARD AMBER DURUM AND NO. 1 DNS 14 PERCENT PROTEIN HRS WHEAT AMONG RESPONDING ELEVATORS IN EACH REGION, NOVEMBER 1, 1989	9
7	MARKET SHARE OF COMMISSION COMPANIES AND TRACK BUYERS BY RESPONDING ELEVATORS FOR DURUM AND HRS WHEAT (FALL 1989)	10
8	MARKET SHARE OF COMMISSION COMPANIES AND TRACK BUYERS BY REGION FROM RESPONDING ELEVATORS FOR DURUM AND HRS WHEAT (FALL 1989)	11
9	MARKET SHARE OF COMMISSION COMPANIES AND TRACK BUYERS BY ORGANIZATION FROM RESPONDING ELEVATOR FOR DURUM AND HRS WHEAT (FALL 1989)	12
10	MARKET SHARE OF COMMISSION COMPANIES AND TRACK BUYERS BY SIZE OF ELEVATORS FOR DURUM AND HRS WHEAT (FALL 1989) . .	13
11	MARKET SHARE COMMISSION COMPANIES AND TRACK BUYER BY LOAD-OUT CAPACITY FROM RESPONDING ELEVATOR FOR DURUM AND HRS WHEAT (FALL 1989)	14
12	QUALITY OF 1986, 1987, 1988, AND 1989 DURUM AND HRS WHEAT CROPS	14
13	AVERAGE PRICE ADJUSTMENTS FOR EACH FACTOR AMONG RESPONDING NORTH DAKOTA COUNTRY ELEVATORS (FALL OF 1984, 1985, 1986, 1987, 1988, AND 1989)	15
14	PRICE ADJUSTMENT AVERAGES FOR DURUM AND HRS WHEAT AMONG ELEVATORS OF SPECIFIED REGIONS IN NORTH DAKOTA (FALL 1989)	16
15	PRICE ADJUSTMENT AVERAGES FOR DURUM AND HRS WHEAT AMONG SELECTED TYPES OF ELEVATOR STRUCTURE ORGANIZATIONS (FALL 1989)	17

List of Tables (Continued)

Table		Page
16	PRICE ADJUSTMENT AVERAGES FOR DURUM AND HRS WHEAT AMONG ELEVATORS WITH SELECTED LOAD-OUT CAPACITIES (FALL 1989)	17
17	PRICE ADJUSTMENT AVERAGES FOR DURUM AND HRS WHEAT AMONG ELEVATORS WITH SELECTED DISTANCES TO NEAREST COMPETITION (FALL 1989)	18
18	PRICE ADJUSTMENT AVERAGES FOR DURUM AND HRS WHEAT AMONG ELEVATORS WITH SELECTED STORAGE CAPACITIES (FALL 1989) .	19
19	AVERAGE, HIGH, AND LOW CLEANING COSTS AND WHEAT SCREENING PRICES FOR 1986, 1987, 1988, AND 1989	20

List of Figures

Figure		Page
1	Nine Regions Used to Divide Responding Elevators by Location in the State	23
2	HRS and HRW Average Protein Level, North Dakota and Kansas	24
3	HRS and HRW Market Protein Premium	25
4	Average Price Adjustments Among North Dakota Country Elevators, Durum (#1 HAD)	26
5	Average Price Adjustment Among North Dakota Country Elevators, Durum (#1 HAD)	27
6	Average Price Adjustments Among North Dakota Country Elevators, HRS (#1 DNS) 14% Protein	28

Highlights

The fundamentals of supply and demand for specific and related crops are reflected in the cash market prices. Cash market prices, along with premiums and discounts, reflect the market determined value of quality characteristics. This report is a brief summary of the results of the 1989 survey of North Dakota grain elevators and handlers. This is the sixth year for this report on the grain industry and its pricing factors. The structure of the grain industry remained unchanged. Average quality levels increased in 1989 and premiums and discounts reacted to the change. The economic incentives for cleaning improved with the average price of screenings increasing 16%.

PRICING AND MARKETING PRACTICES FOR
NORTH DAKOTA DURUM AND HRS WHEAT
1989 CROP YEAR

Jay T. Hesley and William W. Wilson*

Introduction

The fundamentals of supply and demand for specific and related crops are reflected in the cash market prices. The cash market also determines premiums and discounts for particular quality characteristics. Quality premiums and discounts offered by the cash market play an important role in the valuation of a commodity. Premiums and discounts offered by competing firms on commodities change frequently with differences in time, location, and the current and perceived market conditions. Data on the changes that occur are usually not collected and publicly reported. Due to the importance of premiums and discounts in the operations and pricing of agricultural commodities, this report presents the results of its annual survey of country elevators and grain handlers.

This report contains information and data on the structure and pricing practices of the North Dakota grain industry. Also included are market shares of the major grain trading participants. The survey was conducted in November 1989. The general characteristics of the grain trading industry in North Dakota will be described in this report, followed by a brief description of premium and discount activities, changes that occurred in the economics of wheat cleaning, and a brief summary.

The tables and figures referred to in the text are contained in Appendixes A and B, and the survey questionnaire can be found in Appendix C. All of the tables and the information contained in the report are self-explanatory. If there is an interest in comparing the information contained in this report with previous reports, copies can be attained from the authors.

General Characteristics of Participating Elevators

Questionnaires were sent to 512 country elevators in North Dakota and 28% responded, resulting in 141 usable observations (Table 1). Roughly two-thirds of the respondents were organized as cooperatives, with the remaining one-third organized as investor-owned operations (Table 2). These are similar to the previous year. Approximately 82% of all respondents, have a load out capacity of 26 cars per day or greater (Table 3). A majority of operations are located within 6 to 10 miles of their nearest competitor (Table 4).

Harvest States continues to be the largest purchaser of both HRS and durum, followed by Benson-Quinn and Atwood-Larson with 20% and 15% of the market respectively (Table 7). The market shares held by each

*Hesley is graduate research assistant and Wilson is associate professor, Department of Agricultural Economics, North Dakota State University, Fargo.

individual commission company varied by commodity, location, size, and legal structure (Tables 8-11).

Premiums and Discounts

In previous years significant increases in premiums and discounts have highlighted the importance of grain quality and characteristics of the crop in that year. In 1988 the premiums began to decrease and continued to decrease in 1989. Average protein (HRS) levels decreased and average quality (durum) levels improved in 1989. Both changes in quality were reflected by changes in the premiums in 1989 (Tables 12-13).

A higher quality of wheat was available and the decreases in the discounts reflected these changes (Table 12-13). Figures 4 and 6 show the upward movements in the premiums and discounts offered for durum and HRS 14% protein. A notable change was the 43% reduction in the discount for Amber durum (Figure 5). The average durum grade, for the first time since 1984, increased to #1 HAD (Table 12). Average price adjustment for the different quality characteristics between regions, competitors' location, capacity, and handling capabilities can be found in Tables 14-18.

Economics of Dockage Removal

The economic incentives for dockage removal continued to improve during 1989. The average cleaning capacity was 1,929 bushels of grain per hour with a range of 300 to 15,000, up 18% from 1988. Similar to the 1988 harvest, elevator operators specified wheat as clean with an average of 1.8% dockage and did not clean it further. In the 1989 post-harvest period, wheat was accepted as clean wheat with an average dockage of 1.6% or less. In 1989 wheat with a dockage greater than 1.8% during harvest and 1.6% post-harvest was cleaned to an average .80% and .71% dockage, respectively. These 1989 averages are slightly lower than 1988 averages.

The increasing importance of wheat cleaning was highlighted by a 16% increase in the average price received for wheat screenings. The average cost of cleaning also increased, from 4¢/bu to 4.34¢/bu.

References

- Clow, Bradley B., and William W. Wilson. 1988. Pricing and Marketing Practices for North Dakota Durum and HRS Wheat, Agricultural Economics Miscellaneous Report No. 116. Fargo: North Dakota State University.
- Clow, Bradley B., William W. Wilson, and Rebecca Heilman. April 1987. Pricing and Marketing Practices for North Dakota Durum and HRS Wheat 1986 Crop Year, Agricultural Economics Miscellaneous Report No. 105. Fargo: North Dakota State University, Department of Agricultural Economics.
- Gunn, Steven P., and William W. Wilson. January 1986. Pricing Adjustments for Durum and HRS Wheat in North Dakota 1985, Agricultural Economics Miscellaneous Report No. 91. Fargo: North Dakota State University, Department of Agricultural Economics.
- Gunn, Steven P., and William W. Wilson. January 1986. Grading and Pricing Practices of North Dakota Country Elevator for Durum and Hard Red Spring Wheat, Agricultural Economics Report No. 206. Fargo: North Dakota State University, Department of Agricultural Economics.
- Wilson, William. W. 1989. Pricing and Marketing Practices for North Dakota Durum and HRS Wheat 1988 Crop Year, Agricultural Economics Report No. 123. Fargo: North Dakota State University, Department of Agricultural Economics.

Appendix A

TABLE 1. NUMBER AND PERCENTAGE OF RESPONSES FROM NINE REGIONS ACROSS NORTH DAKOTA, 1989

Region	Number of Elevators Receiving Questionnaires	Number of Elevators Responding	Percentage Responding
1. Northwest	64	19	30
2. North Central	44	10	23
3. Northeast	111	27	24
4. West Central	24	10	42
5. Central	50	19	38
6. East Central	82	20	24
7. Southwest	31	10	32
8. South Central	33	6	18
9. Southeast	<u>73</u>	<u>20</u>	<u>27</u>
Total	512	141	28

SOURCE: Question 2.

TABLE 2. ORGANIZATIONAL STRUCTURE OF RESPONDING ELEVATORS, 1989

Types	Number	Percentage
Cooperatives	98	69
Private	41	30
Other	<u>2</u>	<u>1</u>
Total	141	100

TABLE 3. LOAD-OUT CAPACITY OF RESPONDING ELEVATORS,
1989

Load-Out Capacity	Number	Percentage
6 or less cars/day	26	18
7 - 26 cars/day	79	56
27 - 54 cars/day	26	18
More than 54 cars/day	<u>10</u>	<u>8</u>
Total	141	100

SOURCE: Question 4.

TABLE 4. DISTANCE TO NEAREST COMPETITION OF
RESPONDING ELEVATORS, 1989

Distance to Competition	Number	Percentage
Less than 5 miles	45	32
6 - 10 miles	61	43
More than 10 miles	<u>35</u>	<u>25</u>
Total	141	100

SOURCE: Question 5.

TABLE 5. STORAGE CAPACITY OF RESPONDING ELEVATORS,
1989

Storage Capacity	Number	Percentage
Less than 100,000 bushels	7	4
100,000 to 199,000 bushels	22	16
200,000 to 299,000 bushels	14	10
300,000 to 399,000 bushels	30	21
400,000 to 999,000 bushels	50	35
Over 1,000,000 bushels	<u>18</u>	<u>14</u>
Total	141	100

SOURCE: Question 6.

TABLE 6. AVERAGE BOARD PRICE FOR NO. 1 HARD AMBER DURUM
AND NO. 1 DNS 14 PERCENT PROTEIN HRS WHEAT AMONG
RESPONDING ELEVATORS IN EACH REGION, NOVEMBER 1, 1989

Region	Average Durum Price	Average HRS Wheat Price
1. Northwest	317	337
2. North Central	322	336
3. Northeast	333	349
4. West Central	317	335
5. Central	330	345
6. East Central	340	359
7. Southwest	311	341
8. South Central	320	340
9. Southeast	<u>337</u>	<u>353</u>
State Average	325	346

SOURCE: Question 15 and 17.

TABLE 7. MARKET SHARE OF COMMISSION COMPANIES
AND TRACK BUYERS BY RESPONDING ELEVATORS FOR
DURUM AND HRS WHEAT (FALL 1989)

Company	Durum	HRS Wheat
	-----percent-----	
Harvest States	36	29
Atwood-Larson	14	14
Benson-Quinn	21	17
Kellogg	8	7
Cargill	4	8
Peavey	7	9
Continental	1	4
International Multifoods	1	2
North Dakota State Mill	4	1
Others	4	8

SOURCE: Question 7.

Note: Percentages shown are not weighted by the amount of durum and HRS wheat handled by each elevator and thus indicate the average among the elevators, not the amount of durum and HRS wheat handled by each company in North Dakota.

TABLE 8. MARKET SHARE OF COMMISSION COMPANIES AND TRACK BUYERS BY REGION FROM RESPONDING ELEVATORS FOR DURUM AND HRS WHEAT (FALL 1989)

Commodity (Base Grade)	Company	Region								
		1	2	3	4	5	6	7	8	9
-----percent-----										
Durum	Harvest States	40	36	35	44	35	24	58	10	37
	Atwood-Larson	9	13	12	22	15	6	14	30	18
	Benson-Quinn	11	12	19	20	22	36	11	30	25
	Kellogg	11	0	13	11	12	0	14	0	7
	Cargill	5	13	1	2	6	8	0	0	2
	Peavey	10	0	15	0	4	7	0	20	3
	Continental	5	0	0	0	0	1	0	8	0
	IMF	0	0	0	0	2	7	0	0	0
	Others	9	27	5	0	3	11	2	2	8
HRS	Harvest States	39	38	24	45	27	20	19	4	36
	Atwood-Larson	10	16	10	23	21	3	13	26	21
	Benson-Quinn	9	6	18	14	15	29	21	18	18
	Kellogg	12	9	11	5	11	1	1	13	5
	Cargill	6	20	6	10	1	16	12	0	3
	Peavey	2	3	17	1	12	9	2	18	10
	Continental	6	0	3	0	1	9	9	6	4
	IMF	0	0	6	0	0	6	0	0	0
	Others	17	12	4	3	15	7	24	16	4

TABLE 9. MARKET SHARE OF COMMISSION COMPANIES AND
TRACK BUYERS BY ORGANIZATION FROM RESPONDING ELEVATOR
FOR DURUM AND HRS WHEAT (FALL 1989)

Commodity (Base Grade)	Company	Investor Oriented Firm	Cooperative
		-----percent-----	
Durum	Harvest States	6	48
	Atwood-Larson	19	11
	Benson-Quinn	14	24
	Kellogg	20	4
	Cargill	11	2
	Peavey	13	4
	Continental	5	0
	IMF	4	0
	Others	7	8
		<u>100</u>	<u>100</u>
HRS	Harvest States	1	41
	Atwood-Larson	13	14
	Benson-Quinn	13	19
	Kellogg	15	5
	Cargill	14	5
	Peavey	19	3
	Continental	7	3
	IMF	5	1
	Others	10	10
		<u>100</u>	<u>100</u>

TABLE 10. MARKET SHARE OF COMMISSION COMPANIES AND TRACK BUYERS BY SIZE OF ELEVATORS FOR DURUM AND HRS WHEAT (FALL 1989)

Commodity (Base Grade)	Company	Elevator Size (By Bushels)					
		0 to 99,000	100,000 to 199,000	200,000 to 299,000	300,000 to 399,000	400,000 To 999,000	Over 1,000,000
		-----percent-----					
Durum	Harvest States	28	26	38	39	32	50
	Atwood-Larson	0	13	30	7	17	10
	Benson-Quinn	30	15	0	31	28	8
	Kellogg	14	11	16	9	5	6
	Cargill	4	2	1	1	5	13
	Peavey	13	8	11	0	6	6
	Continental	3	6	0	1	0	0
	IMF	0	0	0	4	0	2
	Others	7	9	4	7	7	6

HRS	Harvest States	16	24	26	33	28	37
	Atwood-Larson	0	12	37	8	17	8
	Benson-Quinn	29	9	5	27	19	11
	Kellogg	15	13	11	9	3	6
	Cargill	4	4	3	6	8	21
	Peavey	3	11	10	4	11	10
	Continental	17	9	0	2	3	3
	IMF	0	3	0	3	2	0
	Others	3	20	9	10	9	5

TABLE 11. MARKET SHARE COMMISSION COMPANIES AND TRACK BUYER BY LOAD-OUT CAPACITY FROM RESPONDING ELEVATOR FOR DURUM AND HRS WHEAT (FALL 1989)

Commodity (Base Grade)	Company	Load-out Capacity			
		Less Than 6 Cars	7 To 26 Cars	27 To 54 Cars	Greater Than 54 Cars
		----- percent -----			
Durum	Harvest States	33	32	40	51
	Atwood-Larson	17	15	7	18
	Benson-Quinn	16	23	24	3
	Kellogg	18	9	4	0
	Cargill	2	3	7	10
	Peavey	1	8	11	2
	Continental	0	2	0	1
	IMF	6	0	1	2
	Others	7	8	5	12
HRS	Harvest States	16	31	33	36
	Atwood-Larson	19	14	5	25
	Benson-Quinn	13	19	20	3
	Kellogg	15	7	5	1
	Cargill	1	8	9	19
	Peavey	4	9	15	5
	Continental	3	4	5	7
	IMF	4	2	0	2
	Others	25	8	6	4

*Totals may not add to 100 due to rounding.

TABLE 12. QUALITY OF 1986, 1987, 1988, AND 1989 DURUM AND HRS WHEAT CROPS

Commodity (Base Grade)	Factor	Average Values			
		1986	1987	1988	1989
Durum	Test weight (lbs)	59.3	58.5	60.4	60.7
	Moisture %	12.4	12.2	10.9	11.2
	Grade	2 HAD	2 HAD	2 HAD	1 HAD
	Shrunken & broken kernels %	1.2	0.9	0.9	1.6
	Foreign material %	0.1	0.2	0.3	0.1
	Damaged kernels %	0.8	1.5	0.3	0.1
	Contrasting classes %	0.4	0.6	0.7	0.5
HRS	Test weight (lbs)	58.7	58.9	60.2	60.2
	Moisture %	12.4	12.2	10.6	11.1
	Protein %	14.6	14.9	16.6	16.0
	Shrunken & broken kernels %	1.6	1.3	1.9	1.9
	Foreign material %	0.0	0.2	0.1	0.0
	Damaged kernels %	0.6	0.6	0.1	0.1
	Contrasting classes %	0.0	.0	0.2	0.0

SOURCE: 1986, 1987, 1988, and 1989 durum wheat and HRS wheat quality reports, Department of Food Science and Cereal Technology, North Dakota State University, Fargo, ND.

TABLE 13. AVERAGE PRICE ADJUSTMENTS FOR EACH FACTOR AMONG RESPONDING NORTH DAKOTA COUNTRY ELEVATORS
(FALL OF 1984, 1985, 1986, 1987, 1988, AND 1989)

Commodity (Base Grade)	Factor	1984	1985	1986	1987	1988	1989
-----¢/bu-----							
Durum	58 lbs test weight	-2.2	-2.2	-2.7	-7.0	-10.7	-6.4
	14.5% moisture	-6.0	-7.6	-7.2	-7.3	-7.8	-7.1
	Amber durum	-5.7	-16.7	-21.0	-22.6	-26.8	-15.3
	4% damaged kernels	-6.0	-6.9	-8.4	-8.9	-12.8	-10.7
	1% foreign material	-2.8	-1.9	-1.9	-2.4	-2.9	-3.2
	5% shrunken & broken kernels	-6.6	-3.9	-5.0	-4.8	-5.9	-5.6
	2% contrasting classes	-2.0	-4.4	-4.8	-5.0	-6.6	-5.5
	5% wheat of other classes	--	-9.9	-11.7	-11.8	-16.2	-12.4
HRS	57 lbs test weight	-1.9	-1.8	-2.9	-3.2	-3.6	-2.5
	#1 DNS	-5.9	-6.8	-6.5	-7.5	-5.7	-5.9
14% Protein	16% protein	41.0	63.4	62.6	86.8	9.7	0.7
	12% protein	-38.0	-67.4	-43.9	-38.5	-12.6	-1.5
	4% damaged kernels	-2.0	-6.6	-8.9	-8.4	-10.5	-9.5
	1% foreign material	-1.4	-1.3	-1.7	-2.0	-1.8	-2.0
	5% shrunken & broken kernels	-2.2	-3.0	-4.2	-4.1	-4.7	-4.1
	2% contrasting classes	-1.6	-3.2	-3.5	-3.7	-4.6	-3.6
	5% wheat of other classes	--	-7.0	-8.6	-9.1	-9.6	-8.1

SOURCE: Questions 16 and 18.

TABLE 14. PRICE ADJUSTMENT AVERAGES FOR DURUM AND HRS WHEAT AMONG ELEVATORS OF SPECIFIED REGIONS IN NORTH DAKOTA (FALL 1989)

Commodity (Base Grade)	Company	Region								
		1	2	3	4	5	6	7	8	9
		-----¢/bu-----								
Durum #1 HAD	58 lbs test weight	-7	-8	-5	-7	-7	-5	-7	-4	-7
	14.5% moisture	-7	-9	-8	-8	-7	-5	-6	-4	-9
	4% damaged kernels	-15	-16	-15	-20	-13	-16	-15	-18	-15
	4% damaged kernels	-9	-11	-10	-14	-10	-13	-10	-8	-13
	1% foreign material	-4	-5	-4	-2	-2	-2	-3	-2	-4
	5% shrunken & broken kernels	-6	-9	-5	-5	-5	-4	-7	-5	-6
	2% contrasting classes	-5	-7	-5	-9	-4	-4	-11	-6	-6
	5% wheat of other classes	-13	-15	-11	-15	-10	-10	-16	-17	-14
HRS #1 DNS 14% Protein	57 lbs test weight	-3	-3	-3	-1	-3	-2	-2	-3	-2
	14.5% moisture	-7	-7	-7	-5	-6	-4	-6	-4	-6
	16% protein	0	-3	-1	0	0	-1	0	0	-2
	12% protein	-3	-3	-1	0	-2	-1	-1	-1	-2
	4% damaged kernels	-10	-12	-9	-11	-9	-8	-11	-8	-10
	1% foreign material	-3	-2	-2	-1	-2	-2	-2	-2	-2
	5% shrunken & broken kernels	-6	-6	-4	-4	-4	-3	-4	-4	-3
	2% contrasting classes	-4	-3	-4	-3	-5	-2	-5	-4	-3
5% wheat of other classes	-10	-8	-8	-8	-11	-4	-7	-11	-8	

16

SOURCE: Questions 2, 16, and 18.

TABLE 15. PRICE ADJUSTMENT AVERAGES FOR DURUM AND HRS WHEAT AMONG SELECTED TYPES OF ELEVATOR STRUCTURE ORGANIZATIONS (FALL 1989)

Commodity (Base Grade)	Factor	-----¢/bu.-----	
		Cooperative	Private
Durum #1 HAD	58 lbs. test weight	- 6	- 6
	14.5% moisture	- 7	- 7
	Amber durum	-15	-15
	4% damaged kernels	-11	-11
	1% foreign material	- 3	- 3
	5% shrunken and broken kernels	- 6	- 5
	2% contrasting classes	- 6	- 5
	5% wheat of other classes	-13	-12
HRS #1 DNS 14% Protein	57 lbs. test weight	- 2	- 3
	14.5% moisture	- 6	- 6
	16% protein	- 1	0
	12% protein	- 2	- 1
	4% damaged kernels	-10	- 9
	1% foreign material	- 2	- 2
	5% shrunken and broken kernels	- 4	- 4
	2% contrasting classes	- 4	- 4
5% wheat of other classes	- 8	- 8	

TABLE 16. PRICE ADJUSTMENT AVERAGES FOR DURUM AND HRS WHEAT AMONG ELEVATORS WITH SELECTED LOAD-OUT CAPACITIES (FALL 1989)

Commodity (Base Grade)	Factor	Load-out Capacity			
		Less Than 6 Cars	7 To 26 Cars	27 To 54 Cars	Greater Than 54 Cars
Durum #1 HAD	58 lbs. test weight	- 6	- 7	- 6	- 7
	14.5% moisture	- 8	- 7	- 7	- 5
	Amber durum	-16	-15	-14	-21
	4% damaged kernels	-11	-11	-10	-13
	1% foreign material	- 4	- 3	3	- 1
	5% shrunken and broken kernels	- 6	- 6	- 6	- 3
	2% contrasting classes	- 8	- 6	- 4	- 4
	5% wheat of other classes	-14	-13	-10	-11
HRS #1 DNS 14% Protein	57 lbs. test weight	- 3	- 3	- 2	- 2
	14.5% moisture	- 5	- 6	- 7	- 5
	16% protein	0	- 1	0	- 1
	12% protein	- 1	- 2	- 1	- 1
	4% damaged kernels	- 9	- 9	- 9	-14
	1% foreign material	- 2	- 2	- 2	- 1
	5% shrunken and broken kernels	- 4	- 4	- 4	- 2
	2% contrasting classes	- 6	- 3	- 3	- 2
5% wheat of other classes	-10	- 8	- 7	- 3	

SOURCE: Questions 4, 16, and 18.

TABLE 17. PRICE ADJUSTMENT AVERAGES FOR DURUM AND HRS WHEAT AMONG ELEVATORS WITH SELECTED DISTANCES TO NEAREST COMPETITION (FALL 1989)

Commodity (Base Grade) Miles	Factor	Less		Greater
		Than 5 Miles	6 To 10 Miles	Than 10
-----¢/bu.-----				
Durum	58 lbs. test weight	- 6	- 6	- 7
#1 HAD	14.5% moisture	- 8	- 7	- 6
	Amber durum	-16	-15	-16
	4% damaged kernels	-11	-11	-11
	1% foreign material	- 4	- 3	- 2
	5% shrunken and broken kernels	- 6	- 5	- 6
	2% contrasting classes	- 7	- 5	- 5
	5% wheat of other classes	-13	-12	-12
HRS	57 lbs. test weight	- 3	- 2	- 2
#1 DNS	14.5% moisture	- 6	- 6	- 6
14% Protein	16% protein	- 1	- 1	- 1
	12% protein	- 1	- 1	- 2
	4% damaged kernels	- 9	- 9	-11
	1% foreign material	- 2	- 2	- 2
	5% shrunken and broken kernels	- 4	- 4	- 4
	2% contrasting classes	- 4	- 4	- 3
	5% wheat of other classes	- 7	- 9	- 9

SOURCE: Questions 5, 16, and 18.

TABLE 18. PRICE ADJUSTMENT AVERAGES FOR DURUM AND HRS WHEAT AMONG ELEVATORS WITH SELECTED STORAGE CAPACITIES (FALL 1989)

Commodity (Base Grade)	Factor	Bushels					
		Less Than 0 to 99,000	100,000 to 199,000	200,000 to 299,000	300,000 to 399,000	400,000 to 999,000	Over 1,000,000
-----¢/bu-----							
Durum	58 lbs test weight	-8	-7	-6	-6	-6	-8
#1 HAD	14.5% moisture	-7	-8	-7	-8	-7	-6
	4% damaged kernels	-14	-16	-15	-16	-16	-14
	4% damaged kernels	-14	-12	-16	-10	-11	-10
	1% foreign material	-3	-6	-3	-2	-3	-2
	5% shrunken & broken kernels	-5	-8	-5	-5	-5	-5
	2% contrasting classes	-5	-10	-4	-5	-5	-4
	5% wheat of other classes	-1	-15	-11	-12	-13	-11
HRS	57 lbs test weight	-3	-3	-3	-2	-3	-2
#1 DNS	14.5% moisture	-6	-5	-6	-6	-6	-6
14% Protein	16% protein	0	-3	-1	-1	0	-1
	12% protein	-1	-4	-1	-1	-1	-1
	4% damaged kernels	-9	-9	-9	-9	-10	-10
	1% foreign material	-4	-2	-2	-2	-2	-2
	5% shrunken & broken kernels	-4	-4	-4	-4	-5	-3
	2% contrasting classes	-4	-5	-3	-3	-4	-2
	5% wheat of other classes	-10	-8	-9	-8	-8	-6

19

SOURCE: Questions 6, 16, and 18.

TABLE 19. AVERAGE, HIGH, AND LOW CLEANING COSTS AND WHEAT SCREENING PRICES FOR 1986, 1987, 1988, AND 1989

Item	1986			1987			1988			1989		
	Avg	High	Low	Avg	High	Low	Avg	High	Low	Avg	High	Low
Cleaning costs	4.00	25.00	0.0	3.50	20.00	0.0	4.00	20.00	0.00	4.64	30.00	0.00
Prices received	16.08	45.00	0.0	9.90	30.00	0.0	26.94	45.00	10.00	30.27	50.00	5.00

SOURCE: Questions 12 and 14.

Appendix B

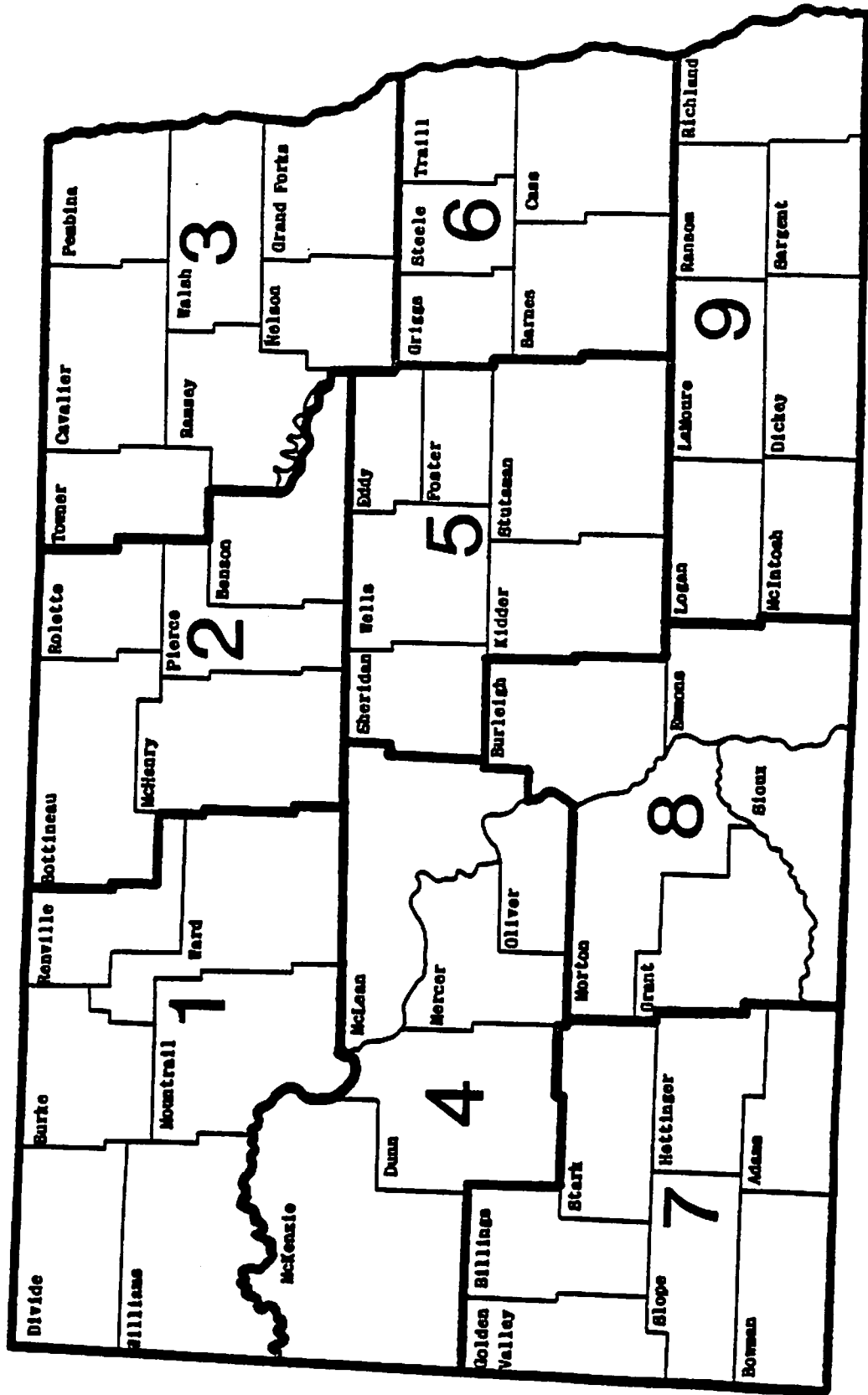


Figure 1. Nine Regions Used to Divide Responding Elevators by Location in the State

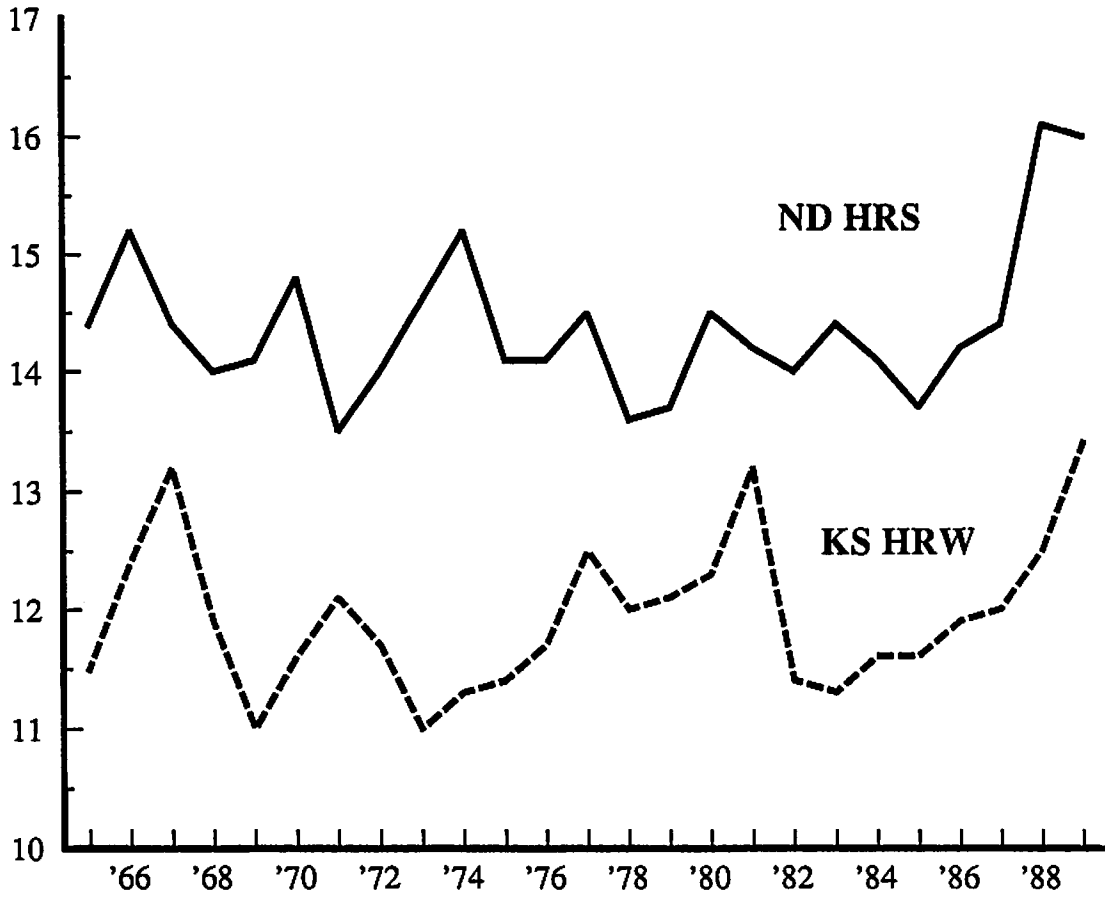
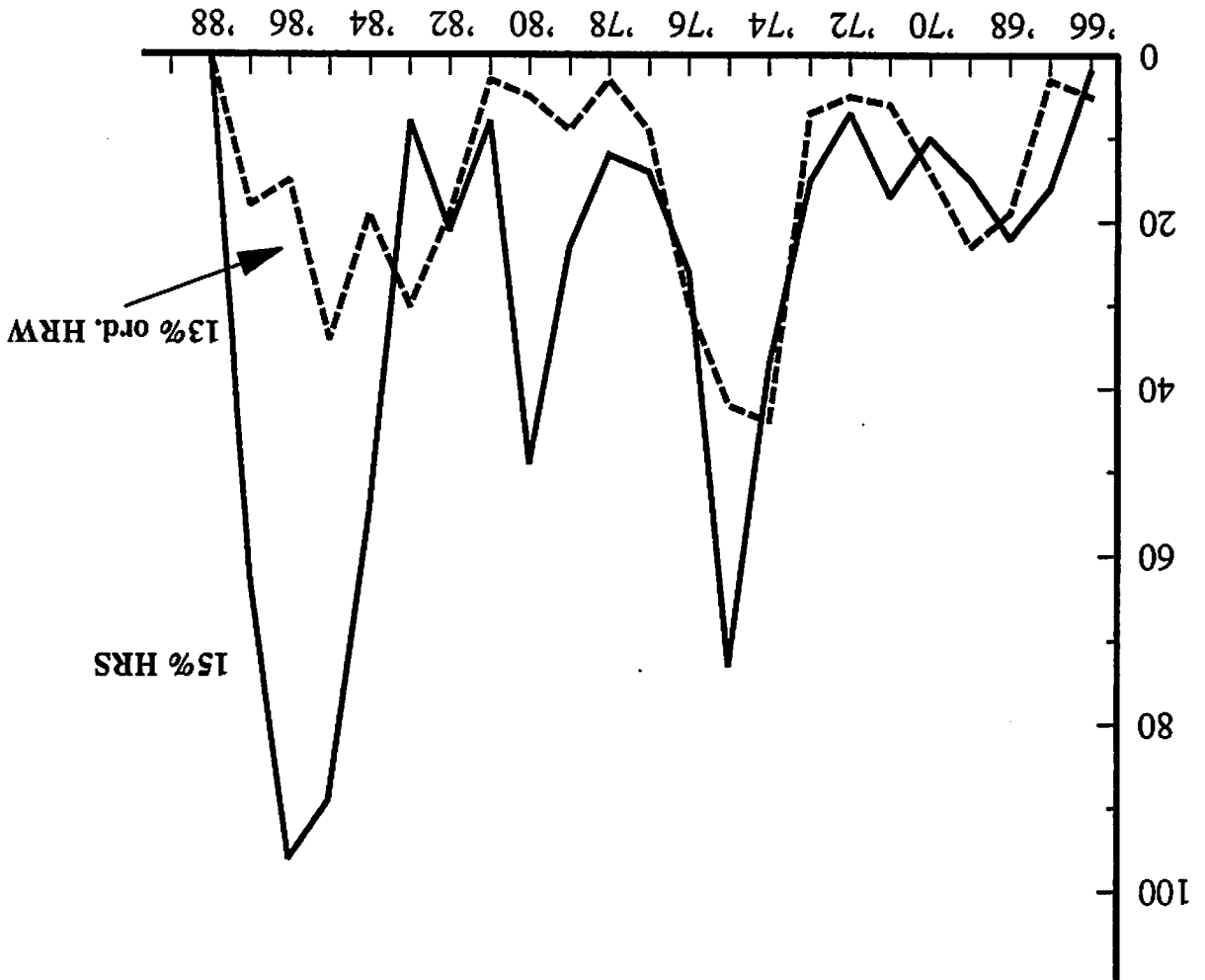


Figure 2. HRS and HRW Average Protein Level, North Dakota and Kansas

Figure 3. HRS and HRW Market Protein Premium



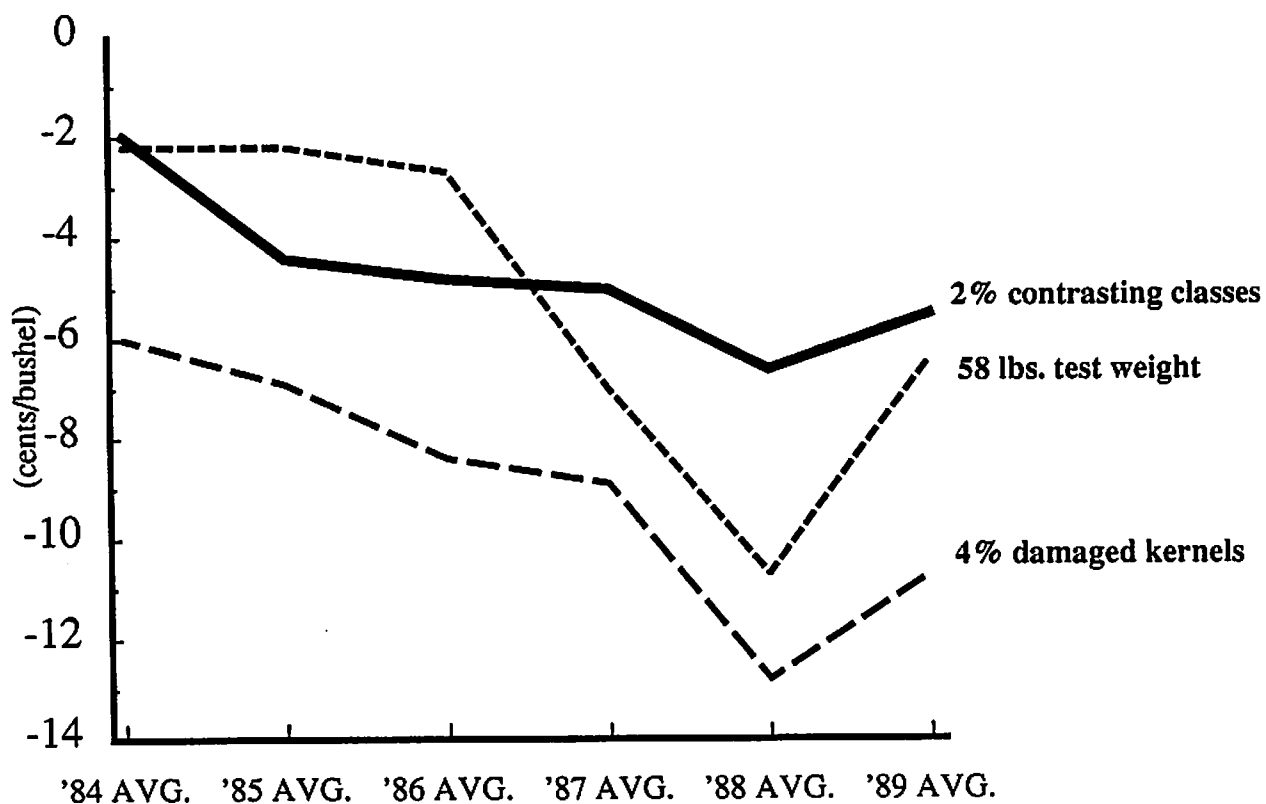


Figure 4. Average Price Adjustments Among North Dakota Country Elevators, Durum (#1 HAD)

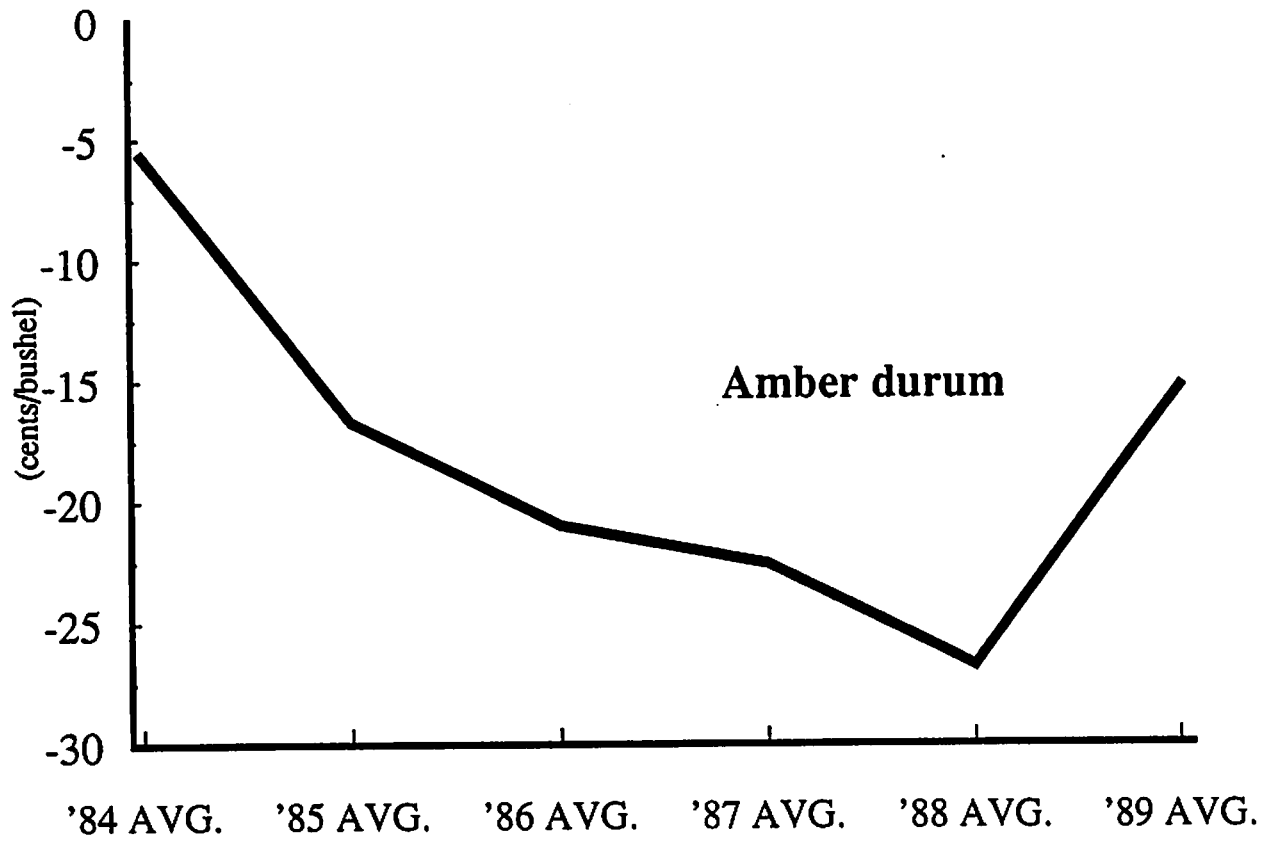


Figure 5. Average Price Adjustment Among North Dakota Country Elevators, Durum (#1 HAD)

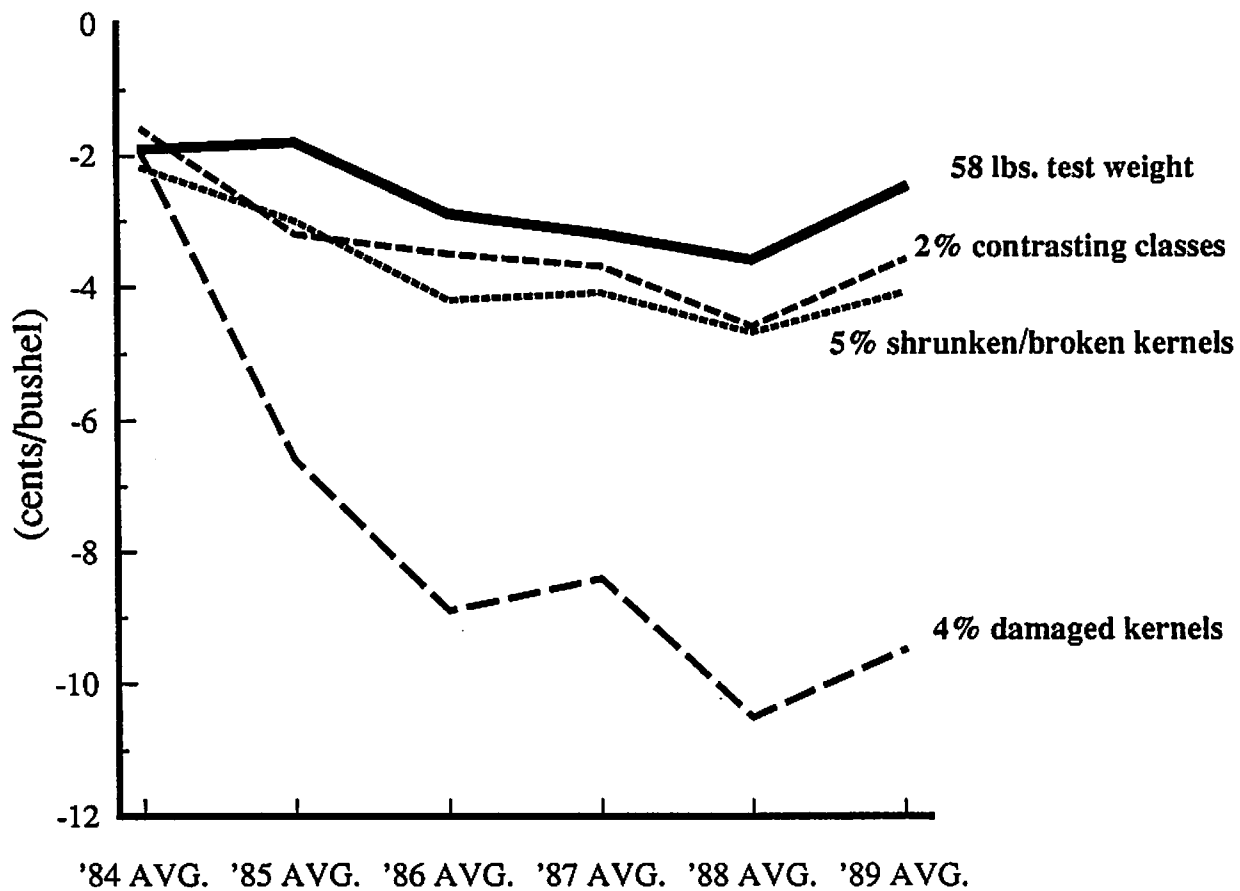


Figure 6. Average Price Adjustments Among North Dakota Country Elevators, HRS (#1 DNS) 14% Protein

Appendix C

GRAIN MARKETING QUESTIONNAIRE

(Fall 1989)

1. Name of firm _____
2. Location of firm _____
3. This elevator is a:
 - _____ (a) Locally owned cooperative elevator
 - _____ (b) Harvest States line elevator
 - _____ (c) Locally owned private elevator
 - _____ (d) Line elevator of a large private company
 - _____ (e) Other _____
4. What is the largest number of rail cars that your elevator can load in one day?
 - _____ (a) Less than 6 cars
 - _____ (b) Between 7 and 26 cars
 - _____ (c) Between 27 and 54 cars
 - _____ (d) More than 54 cars
5. How far away is your nearest competition?
 - _____ (a) Less than 5 miles
 - _____ (b) 6 to 10 miles
 - _____ (c) More than 10 miles
6. What is the total plant storage capacity at this facility? _____ bushels
7. What were the major commission companies or track buyers you sold your durum and HRS wheat through and the approximate percentage of sales to each (over the past year)?

<u>Name</u>	<u>Approximate Percent of Sales</u>	
	<u>Durum</u>	<u>HRS Wheat</u>
a. Harvest States	_____	_____
b. Peavey	_____	_____
c. Cargill	_____	_____
d. Atwood-Larson	_____	_____
e. Benson-Quinn	_____	_____
f. Kellogg	_____	_____
g. Continental	_____	_____
h. IMF	_____	_____
i. North Dakota Mill	_____	_____
j. _____	_____	_____

8. What percentage of your wheat is cleaned before shipment? _____%
9. At what dockage percentage do you not clean wheat?
 - Harvest _____ Postharvest _____
10. How many bushels can you clean per hour? _____
11. To what dockage percentage level do you clean your wheat?
 - Harvest _____ Postharvest _____

12. What would you estimate your cleaning costs to be in cents per bushel? _____
13. To whom do you sell most of your screenings? _____
14. What average price do you receive for wheat screenings? _____
15. What was your board price for #1 Hard Amber Durum (milling) on November 7, 1989? _____
16. What are your discounts for durum which grade the following values?
(Base grade = #1 HAD)

- | | |
|--|-------------|
| a. 58 lb. Test Weight | _____ ¢/Bu. |
| b. 14.5% Moisture | _____ ¢/Bu. |
| c. Amber Durum (color) | _____ ¢/Bu. |
| d. 4% Total Damaged Kernels | _____ ¢/Bu. |
| e. 1% Foreign Material | _____ ¢/Bu. |
| f. 5% Shrunken & Broken Kernels | _____ ¢/Bu. |
| g. 2% Contrasting Classes | _____ ¢/Bu. |
| h. 5% Wheat of Other Classes | _____ ¢/Bu. |
| i. Variety: Premium (+) - Discount (-) | |
| Vic | _____ ¢/Bu. |
| Ward | _____ ¢/Bu. |
| Lloyd | _____ ¢/Bu. |
| Other varieties | _____ ¢/Bu. |
| j. Other _____ | _____ ¢/Bu. |

17. What was your board price for #1 DNS 14% protein on November 7, 1989? _____

18. What are your discounts and premiums for HRS wheat which grade the following values?
(Base grade = #1 DNS 14% protein)

- | | |
|---------------------------------|-----------------------------------|
| a. 57 lb. Test Weight | _____ ¢/Bu. |
| b. 14.5% Moisture | _____ ¢/Bu. |
| c. 16% Protein | _____ ¢/Bu. (tested 12% moisture) |
| d. 12% Protein | _____ ¢/Bu. (tested 12% moisture) |
| e. 4% Total Damaged Kernels | _____ ¢/Bu. |
| f. 1% Foreign Materials | _____ ¢/Bu. |
| g. 5% Shrunken & Broken Kernels | _____ ¢/Bu. |
| h. 2% Contrasting Classes | _____ ¢/Bu. |
| i. 5% Wheat of Other Classes | _____ ¢/Bu. |
| j. Other _____ | _____ ¢/Bu. |

19. Would you like a copy of the completed report? _____ Yes _____ No

