Approved February 19, 1985
Date

MINUTES OF THE Senate COMMITTEE ON Agriculture.

The meeting was called to order by Senator Allen at
Chairperson

10:00 a.m./~~p.m.~~ on February 13, 1985 in room 423-S of the Capitol.

All members were present except:

Committee staff present: Raney Gilliland, Research Department
Jim Wilson, Revisor of Statutes Department

Conferees appearing before the committee: Tom Sloan, Administrative Assistant to President Talkington
Gary Gilbert, Gilbert Grain, Clay Center
Tom Tunnell, Kansas Feed and Grain Dealers
Bill R. Fuller, Kansas Farm Bureau

Senator Allen called the Senate Agriculture Committee to order at 10:00 a.m.

Senator Doyen moved the minutes of the February 7 and 11 meeting be approved. Senator Norvell seconded the motion. Motion carried.

Senator Allen stated the purpose of todays meeting was to hear S.B. 23. The chairman introduced the following who spoke and answered questions.

Tom Sloan, Administrative Assistant to President Talkington, the first proponent to speak, expressed support for S.B. 23 which encourages development of markets for quality Kansas grain in domestic and international markets. (see attachment A).

Gary Gilbert, an elevator owner from Clay Center, told of work done in his elevator on cleaning grain using a rotary cleaner and the best results with a multi-aspirator. (see attachment B).

The question ask was, do you think elevators will be required to have an aspirator in order to have 100% Kansas Finest Quality Grain for marketing? No, lots of wheat grown in Kansas meets the 100% Kansas Finest Quality grade, however, the use of an aspirator still would not make some of the substandard wheat meet that standard.

Tom Tunnell, Executive Vice President, expressed concerns the Kansas Grain and Feed Dealers Association has with S.B. 23. The organization applauds any effort to increase the export of Kansas produced grain. Mr. Tunnell summarized by saying his organization, considering the estimated cost of the program, does not feel the cost benefit is present in this bill. (see attachment C).

The question ask was, how is this program going to work? Mr. Tunnell said he has questions, also, but the exporters at the gulf say they can keep grades of grain seperated until loaded but they did not know what the cost would be.

Bill Fuller speaking for Kansas Farm Bureau applauded the goals of S.B. 23 and expressed some concern and suggestions about this bill. Mr. Fuller encouraged the goals of this bill be studied well so that the program suggested would benefit all Kansas wheat producers. (see attachment D).

Senator Allen ask the remaining conferees if they could return at another time to testify. A committee meeting will be scheduled at their convenience for this purpose.

Senator Allen declared the meeting adjourned at 11:00 a.m.

Unless specifically noted, the individual remarks recorded herein have not been transcribed verbatim. Individual remarks as reported herein have not been submitted to the individuals appearing before the committee for editing or corrections.

GUEST LIST

COMMITTEE: SENATE AGRICULTURE DATE: February 13, 1985

NAME (PLEASE PRINT)	ADDRESS	COMPANY/ORGANIZATION
Kenneth M. Wilke	Topeka	Board of Agriculture
Mary Harper	Healy	Self
Doris Nagel	Topeka	Div. of Budget
Elbon R Fastrup	Topeka	Ks Board of Agriculture
Joe Lieber	" "	Ks Coop Council
David Frey	Manhattan	Ks. Wheat Commission
Jim Blair	Manhattan	KS Wheat Commission
Gerald Riley	Dighton	Ks Ass'n Wheat Growers
Bill R. Fuller	Manhattan	KFB
Harland Priddle	Topeka	Ks State Bd of Ag
Howard W. Tice	Hutchinson	Ks. Ass'n of Wheat Growers
Juanita Kuhn	WP Larson	
Karen Gilbert	Clay Center	
Gary L. Gilbert	Clay Center	Gilbert Grain Inc.
Della Wray Blythe	Manhattan	
Edie Dahlsten	Lindsborg	Kansas Fm Bureau
John K. Blythe	Manhattan	" " "
JOHN E. LARSON	TOPEKA	CARGILL INC
TOM R TUNNELL	HUTCHINSON	KANSAS GRAIN/FEED DEALER ASSN.

TESTIMONY: S.B. 23 - THOMAS SLOAN

Mr. Chairman, members of the committee, S.B. 23 is designed to encourage state government and the private sector to cooperate in support of improving this state's economy.

This bill encourages the Kansas Board of Agriculture, the Department of Economic Development and farmers, elevator operators, shippers and other agricultural interests to jointly develop markets for Kansas grains. S.B. 23 is not proposed to injure any individual or business, but is designed to allow Kansas to compete more effectively for domestic and international markets.

Testimony before the interim agriculture committee focused on the international marketing problems confronting American grains. Governor Carlin made pointed remarks about the grain he saw being unloaded during his tour of the orient. Both situations indicate Kansas will increase its market share only through marketing strategies which unite the various parts of the agricultural industry.

S.B. 23 emphasizes that Kansas has a quality product which buyers should desire. S.B. 23 encourages all interested parties to advertise the quality of Kansas grains. The domestic and international markets for grain are not growing quickly enough to help the Kansas farm economy, one way of providing assistance is through state coordination.

Grain markets are relatively inelastic to changes in price, market share can be increased at the expense of another marketer. Kansas, as the nation's and ~~work~~ world's breadbasket, can capitalize on the quality of our grains in the same manner the nation of Columbia does on its mountain grown coffee.

"AH Kansas" is a slogan that does little to improve the economy of the state's people, S.B. 23 is an image bill that may.

attachment A
2/13/85

TESTIMONY BEFORE SENATE AGRICULTURE COMMITTEE

SENATE BILL NO. 23

February 13, 1985

By: Gary L. Gilbert
Representing Gilbert Grain, Inc.

I believe the reason I have been asked to testify is because of the work we have been doing over the past two years in cleaning grain. As country elevator owners and operators, my brother and I realized in 1982 that something needed to be done about our own grain quality problems. Weather conditions had caused the wheat crop to be shriveled, of light test weight, and contain ½ - 3% dockage.

After having shipped nearly 100 semi-loads of wheat to terminals for state grades, it seemed that something definitely was going to have to be done to up-grade our wheat.

We first purchased a rotary screen cleaner and cleaned 56,000 bushels of wheat, which also went for state grades. We weighed the screenings and decided we were removing too much sellable product and not enough dockage and foreign material.

We then acquired a portable multi-aspirator, which uses air classification to remove particles according to size, shape, and bulk density. The multi-aspirator has few moving parts. It simply allows the grain to tumble down over a series of baffles as air is lifted through a thin, even grain stream. By adjusting the volume

attachment B
2/13/85

of air passing up through the grain, the particles of lower terminal velocity are removed from the grain flow. They are then separated from the air by means of a cyclone which discharges the material out the bottom and air out the top.

The results from using the aspirator were encouraging. We had removed dockage and foreign material without removing much sellable product.

Through financial assistance from the Kansas Wheat Commission, a computer program was developed at K-State to analyze the benefits of the rotary screening versus the aspiration method. Economics professor Dr. Harvey Kiser has written a case study of the benefits of removing dockage, based on our information, analyzing the per centages removed, grade improvements, and transportation savings. Each of you have been given copies of this case study.

With the assistance of Dr. McCullough at Key Milling Co. in Clay Center, we analyzed several samples of the liftings. Although we repeatedly submitted samples that looked very trashy, we were pleased to learn that they contained more nutritional value than had been expected. On the last page of the case study you will find feed analyses on twelve samples of aspirated grain fractions that were submitted to a commercial laboratory.

In order to utilize the feed value, we leased a total confinement feeding floor and bought 1,000 head of feeder pigs. Our initial attempt to feed the liftings met with only limited success, but we found that by re-aspirating the liftings and eliminating the more fibrous material, that the shrunken and broken wheat made a good hog feed. The lighter weight material was found to contain enough

shriveled wheat, wheat flour and weed seeds that it had good protein and pellet binding properties. We are now selling this material to Key Milling Co., a local feed manufacturer, for use in range cubes, and it has met with good acceptance. I have also given you a summary of the statements made by Dr. McCullough at the Formula Feed Conference in Manhattan on January 21 of this year.

The feed industry is built around the utilization of by-products created from vegetable oil and cereal processors. The future of grain quality improvement will rely heavily on the sale of liftings to feed manufacturers. Even though liftings can vary in consistency, density, and other physical properties, with close cooperation we can establish acceptable standards that are economically beneficial to both the grain and the feed industries.

I believe the multi-aspirator will play an important part in the delivery of Kansas quality grain to the ultimate consumer. The Union Equity elevator at Enid, Oklahoma has four aspirators in operation, capable of cleaning a total of 48,000 bushels per hour. I know of two terminal elevators in Kansas that load 100 car unit trains that are currently preparing to install 15,000 bushels per hour units. Besides these specific terminal elevators, there are also numerous country elevators who are already, or soon will be, installing multi-aspirators. Some have their own feed mills, but most will be looking for a market for their liftings.

We have been aspirating all of our milo this year and have raised the test weight from 56# to 59#. Some of the other benefits

we have realized are:

1. Significantly reduced drying costs.
2. Improved storability.
3. Increased storage capacity.
4. Produced consistent quality grain.
5. Increased grain handling flowability.
6. Reduced insect infestation and removed insect harborages.
7. Improved aereation.
8. Gained customer preference.
9. Improved working conditions.
10. Less housekeeping required.
11. Reduced insurance premiums.
12. Gained access to specialty markets.
13. Reduced transportation costs.

We are currently feeding milo liftings to 164 head of cattle. We have found the liftings to be very palatable when fed with silage in a pre-conditioning ration. In cooperation with the K.S.U. experiment station at Fort Hays, we will begin feeding trials this spring using aspirated grain fractions. I have found the feed industry to be willing to accept this new by-product with much enthusiasm.

FEEDING VALUE OF
GRAIN SCREENINGS

Richard L. McCollough, Ph.D.

Key Milling Co., Inc.
Clay Center, Ks. 67432

Summary

Feeding Reaspirated Wheat to Swine

Wheat of the 1984 crop was aspirated and the liftings were then reaspirated. Wheat that consisted mainly of cracked, broken, and shriveled kernels was left after the reaspiration. This material weighing between 30 to 45 lbs/bu was ground and fed to hogs on a commerically operated finishing floor. The ground, reaspirated wheat made up 100% of the grain in the ration. The ration was balanced for other nutrients.

Table 4 shows the swine performance data from the finishing floor when reaspirated wheat was fed for a 55 day test. The performance of the pigs was considered acceptable for commercial conditions. The feed intake of 4.6 lb per day may be lower than typical milo-soy rations under these conditions.

Table 5 shows individual pen results from feeding reaspirated grain. The hogs averaged 121 lbs at the beginning of the test and weighed 205 at the end. They gained an average of 1.54 lbs/day. The ADG maybe slightly lower than expected for normal grains, but acceptable considering the low test weight of the wheat being fed.

The reaspirated wheat from the wheat crop of 1982 that contained tombstones and pink berries was fed to hogs. The reaspirated wheat contained 1.25 PPb B_1 equivalent aflatoxins. Hogs would not eat feed that contained more than 10% wheat liftings. It was thought that the aflatoxins maybe a contributing factor to the palability problem.

Feeding Value of Aspirated Wheat Liftings

The aspirated wheat liftings could become a by-product of the elevator cleaning the dockage out of wheat before shipping, and it has the potential to become a valuable feed ingredient. The liftings could be used as an ingredient in cattle feed and in particular range cubes. The wheat liftings could provide both protein and energy in the cattle cube formulations. The fine dust in the aspirated wheat liftings acts as a binding agent while going through the cubing process. This benefical characteristic of the liftings makes a durable range cube with less fines.

Table 5. Pen Observations From A Swine Feeding Floor Being Fed Reaspirated Wheat. 1,2/

Item	A	B	C	D	Pooled A-D
No. hd/pen	18	18	18	18	72
Initial wt., lb.	139	124	109	112	121
Ending wt., lb.	218	206	202	196	206
Gain, lb.	79	82	93	84	85
ADG., lb.	1.43	1.49	1.69	1.53	1.54

1/ 45% gilts, 55% barrows
2/ Feeding period 55 days, 10-17-84 to 12-11-84.

Table 4. Observations From a Swine Feeding Floor Using Ground Reaspirated Wheat Liftings. 1,2/

Number of head :	1,113
Housing :	Curtain sided building Floor ½ slats
Test Period :	55 days
Average Wt. lb.	128
Average Feed Intake lb/day	4.6
Average Feed/lb gain	3.5

1/ 45% gilts, 55% barrows
2/ Soy, reaspirated wheat rations

Harris Laboratories, Inc.

624 PEACH STREET, P.O. BOX 80837 • LINCOLN, NEBRASKA 68501 • TELEPHONE 402/476-2811

Report of Analysis

For **Key Milling Company**
Clay Center KS 67432

Date **November 30, 1984**

Laboratory No. **39225**

Sample of **Aspirated Sorghum Liftings**

Received **November 27, 1984**

Sample Marked **32 lbs/bushel**

	As Received	Dry Basis
Moisture (Oven)	15.06 %	—
Protein, Crude	8.59 %	10.11 %
Fat, Crude	2.76 %	3.25 %
Fiber, Crude	13.46 %	15.85 %
Ash	%	%
Digestible Protein (Calculated)	%	%
Carbohydrates (Calculated)	%	%
Nitrogen-Free Extract (Calculated)	%	%
Total Digestible Nutrients (TDN, Calculated)	54.05 %	63.63 %
Fiber, Acid Detergent	25.52 %	30.04 %
Salt (As NaCl)	%	%
Urea	%	%

		As Received	Dry Basis
Calcium	(Ca)	0.11 %	0.13 %
Phosphorus	(P)	0.26 %	0.31 %
Aluminum	(Al)	ppm	ppm
Boron	(B)	ppm	ppm
Copper	(Cu)	ppm	ppm
Iron	(Fe)	ppm	ppm
Magnesium	(Mg)	%	%
Manganese	(Mn)	ppm	ppm
Potassium	(K)	%	%
Sodium	(Na)	%	%
Zinc	(Zn)	ppm	ppm
Other Analyses:			
		%	%
		%	%
		ppm	ppm

ppm = Parts Per Million

Method: **AOAC**

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Respectfully submitted,
HARRIS LABORATORIES, Inc.
By Wayne Wondercheck

JSTOM LIVESTOCK NUTRITION LABORATORY, I

P.O. Box 215

Hwy.40

Phone (314) 445-2642

Columbia, Missouri 65205

Gilbert

RECEIVED 11/09/94

SAMPLE NO 94-27-K-4

SAMPLE I.D. RESPIRATED

16# MAGNUM LIFTING

	As Fed Basis	Dry Matter Basis	As Fed Basis	Dry Matter Basis	As Fed Basis	Dry Matter Basis
MOISTURE.... %/%	15.22	8.86				
DRY MATTER... %/%	84.78	100.00				
CRUDE PROTEIN %/%	7.23	8.53				
4/3 CRUDE PRO %/%						
AVAIL PROTEIN %/%						
NON-NITROGEN, %/%						
PEPSIN A PROT %/%						
A.D. FIBER... %/%	21.83	26.60				
N.D. FIBER... %/%						
TDN..... %/%	57.95	56.55				
NE LACT...MCAL/LB	.48	.54				
N E GAIN..MCAL/LB	.21	.25				
N E MAINT.M/CAL/L	.47	.55				
CRUDE FAT.... %/%						
PH..... %/%						
ASH..... %/%						
NITROGEN.... %/%	1.16	1.37				
CALCIUM .... %/%	.17	.20				
PHOSPHORUS... %/%	.26	.31				
MAGNESIUM... %/%						
POTASSIUM... %/%						
SODIUM..... %/%						
SULFUR..... %/%						
IRON..... PPM						
MOLYBDENUM... PPM						
COPPER..... PPM						
MANGANESE... PPM						
ZINC..... PPM						
ALUMINUM....PPM						
NITRATES....%/%		NEGATIVE				

NAME..... GILBERT GRAIN

ADDRESS.....

SUBMITTED BY..... JEY MILLING

ADDRESS.....

This report applies to sample(s) Tested. Samples are retained a Maximum of thirty days after testing.

CUSTOM LIVESTOCK NUTRITION LABORATORY, INC.

By Chris Lehman

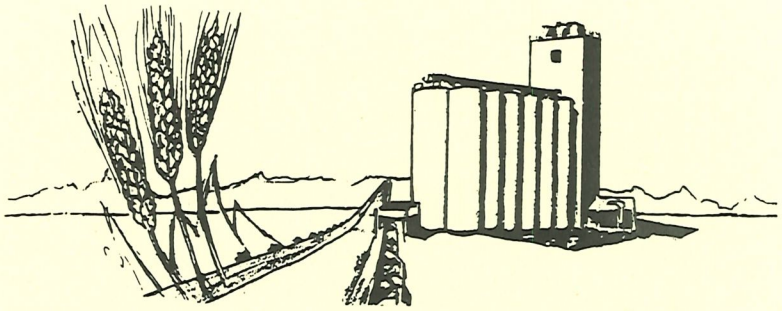
from Gary

CLEANING WHEAT AT A COUNTRY ELEVATOR

A Case Study

by

Harvey L. Kiser
Department of Agricultural Economics
and
International Grains Program



Kansas Wheat Commission and
Kansas Agricultural Experiment Station
Manhattan, Kansas

December 1984

PREFACE

The author wishes to thank Mr. Gary Gilbert for supplying information on the number of bushels of wheat shipped, on grain inspection results, on the amounts of material removed by screening and aspiration, and on the costs of investment and operation of a screener and an aspirator.

Additionally, the continued support and encouragement of the Kansas Wheat Commission to study the impact of removing dockage from wheat is greatly appreciated. The farmer commissioners are to be commended for their help in documenting the impacts of dockage removal through their funding of projects like this one and by their continued support of the International Grains Program.

This author wishes to acknowledge the foresight of Mr. Myon Krenzin, former administrator and Mr. John Dukelow, former agricultural marketing specialist with the Kansas Wheat Commission, who earlier proposed such a study. I am sure Mr. Krenzin and Mr. Dukelow would agree that this study is only a part of the needed documentation and analysis of the economic and marketing ramifications of dealing with wheat dockage in the United States and world wheat market.

CLEANING WHEAT AT A COUNTRY ELEVATOR[1]
A Case Study

by Harvey L. Kiser
Associate Professor
Department of Agricultural Economics
Kansas State University

INTRODUCTION

The pros and cons of removing dockage from wheat have been debated for years. This debate includes the level of dockage that is considered excessive. Dockage amounts are usually considered excessive by the grain trade when they reach 0.5 percent by weight. This is indicated by the general practice of reducing the weight of a shipment by the amount of dockage when it is 0.5 percent or greater.

Country elevator operators, who have used aspirators or screeners[2] to remove dockage[3] from wheat, have said the investment in such equipment has paid for itself, sometimes in one year if there were excessive amounts of dockage in that harvest of wheat delivered by farmers. This is a case study that analyzes market recognition of dockage levels and evaluates the costs and returns of screening and aspiration systems used by one country elevator operator. Detailed data were provided on the weight of dockage removed prior to shipment, the operating costs, and transportation rates for shipping wheat. Other data provided were the official grades, grade factor determinations, dockage levels of the wheat shipped from the elevator, delivered weights at the terminal elevator, and prices received.

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[1]Dr. Keith Behnke, Associate Professor, Department of Grain Science, Mr. Joe Tiao, Instructor, Department of Economics, provided immeasurable advice and assistance. Mr. Tiao developed the computer analysis program. Mr. James Sterns, Student Assistant, helped in the analysis. This study was financed by the Kansas Wheat Commission. Contribution 85-251-D from the Kansas Agricultural Experiment Station.

[2]A screener is a system using a set of screens to remove unwanted material from the wheat, whereas an aspirator uses air to blow out this material as it moves around a set of baffles.

[3]See Appendix B for the official definition of dockage and foreign material under the U.S. Grain Standards Act.

STUDY PROCEDURES

In this case study, a rotary screener was operated at 800 bushels per hour for 56 truckload shipments and an aspirator was operated at 1,500 bushels per hour for 22 truckload shipments. Ninety-eight truckload shipments that were not screened or aspirated were used as a comparison against those that had dockage material removed by screening or aspiration.[4] All of the shipments of hard red winter (HRW) wheat were from the 1982 crop in the same geographic area, within 30 miles of the elevator. The average unloading weight of truck shipments at the terminal elevator was 53,420 pounds of the original outbound weight from the country elevator, 1.17 percent was removed by the rotary screener and 0.76 percent by the aspirator.

This analysis assumed that all of the wheat was essentially the same prior to screening or aspiration. In using statistical tests to compare the inspection results of the unscreened, screened, and aspirated shipments, screening and aspiration significantly increased the test weight, decreased dockage percentages, and decreased the price discounts assessed on the shipments. Screening decreased the percentage of shrunken and broken kernels, whereas aspiration did not. Although further studies involving more rigorous analytical procedures applied to more shipments could likely change the figures, it is believed that these data are sufficiently documented to permit valid conclusions.

EFFECTS ON GRADE LEVELS AND DOCKAGE PERCENTAGES

Grade Levels

Screening and aspiration improved the numerical grade of the shipments. None of the unscreened shipments graded

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[4] The 98 shipments that were not screened or aspirated were shipped prior to the installation of the screener. Later, the aspirator replaced the screener. The shipments through the period of study were taken sequentially. Subsequent analysis will be needed to develop a method of representative sampling before the wheat enters the aspirator and after the wheat passes through the aspirator.

U.S. No. 1; over two-thirds graded U.S. No. 2; and nearly one-third graded U.S. No. 3. However, of the screened shipments, 3.5 percent graded U.S. No. 1; 87.5 percent U.S. No. 2; and only 8.9 percent graded U.S. No. 3. Of the aspirated shipments, 86.5 percent graded U.S. No. 2, and 13.5 percent U.S. No. 3, after the adjustment was made for heat damage in some of the aspirated shipments.[5] (See Table 1)

Table 1
Percentage Distribution of the HRW Wheat
Truck Shipments by Grade, 1982

Grades	Unscreened		Screened		Aspirated	
	Bu.	(%)	Bu.	(%)	Bu.	(%)
U.S. No.1	0	0.00	1,753	3.54	0	0.00
U.S. No.2	58,200	67.41	43,301	87.54	17,626	86.49
U.S. No.3	28,142	32.59	4,410	8.92	2,754	13.51
TOTAL	86,342	100.00	49,464	100.00	20,380	100.00

DOCKAGE PERCENTAGE

Wheat shipments that were screened or aspirated had lower dockage percentages. Among the unscreened shipments, the certified dockage percentages ranged from 0.0 to 3.5 percent.[6] Of these shipments, 9.2 percent had zero dockage, while 58.2 percent had 0.5 percent, and 32.6 percent had 1.0 percent dockage or more.

Of the screened wheat shipments, 62.5 percent were certified with zero percent dockage and 37.5 percent with 0.5 percent dockage. Of the aspirated shipments, 86.4 percent were certified as having zero percent dockage and 13.6 percent as having 0.5 percent dockage. (See Table 2 for a summary of dockage percentages.)

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[5] Since aspiration does not affect the level of heat damaged kernels, the effect of such kernels on the grade and price discounts was eliminated by making the heat damaged kernels percentage the average of those shipments without heat damage.

[6] Certified dockage percentages are the result of rounding down to the nearest half percent. For example, 0.0 to 0.49 percent is certified as zero; 0.5 to 0.99 is certified as 0.5 percent.

Table 2
Percentage Distribution of the HRW Wheat Truck
Shipments by Different Levels of Dockage Percentages, 1982

Certified Dockage Levels	Unscreened Shipments		Screened Shipments		Aspirated Shipments	
(%)	(Number)	(%)	(Number)	(%)	(Number)	(%)
0.0	9	9.2	35	62.5	19	86.4
0.5	57	58.2	21	37.5	3	13.6
1.0	6	6.1				
1.5	9	9.2				
2.0	15	15.3				
2.5	1	1.0				
3.0	0	0.0				
3.5	1	1.0				
TOTAL	98	100.0	56	100.0	22	100.0

ECONOMIC ANALYSIS

Two methods were used to appraise the economic impact of removing dockage from wheat by screening or aspiration. These were profit and loss or break-even analysis under various conditions and pay-back period.

Break-even Analysis

The profit received from selling unscreened wheat to a terminal was compared against the profit from selling screened or aspirated wheat to the same terminal. Conditions were simulated and varied to discover how much value had to be attributed to the screenings or liftings[7] in order for the screening or aspiration operation to break-even.

[7] Liftings consist of material removed or lifted from wheat by aspiration.

The relevant variables used in the analysis to simulate different conditions were wheat sales, earnings from screenings or liftings, transportation cost of the wheat shipments, and the operating costs of a screener or an aspirator.

It is important to note here that the values used for the screenings or liftings were the adjusted variable that allowed for the break-even computation. Values of $2.00, $2.50, and $3.00 per hundredweight were used in the initial analysis before computation of a break-even point and a payback period, since these were the prices that country elevator operators were receiving in 1982. A feed formulating specialist would use a linear program to compute the value of the screenings in mixed feed. Screenings or liftings are considered to have nutritional value of at least 80 percent that of corn.[8]

The market price of screenings is also affected by its own supply. The price of screenings in the future might be higher or lower than the values considered in this analysis and obviously could affect profits. If a reliable supply of screenings were available to the market, prices might be higher than current prices because there would be less frequent changes in feed formulas. It also could be argued that the availability of more screenings or liftings would have depressive effects on the market prices of screenings because of increased supply.

If the latter case existed, it would be useful to know if the cost of screening or aspiration could be covered sufficiently by transportation savings alone. This was the principal reason for using a break-even analysis.

In this study, the cost of transporting the screenings or liftings to the user was zero, since they were used by the elevator operator for swine rations. The net profit to unscreened or nonaspirated wheat shipments included the wheat sales less the transportation costs. The net profit to the screened or aspirated shipments included (1) wheat sales at a higher net price per bushel than unscreened or

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[8] See Appendix C for a comparison of the nutritive value of several samples of the liftings that included shrunken and broken kernels and light-weight material, all of which were removed by aspiration from 1984 wheat crop shipments. Also included is the nutritive value for hard wheat, wheat millrun, and wheat middlings.

nonaspirated wheat because of lower price discounts, (2) transportation savings from not shipping 0.5 percent or more dockage material that receives no returns, (3) value attributed to screenings or liftings, and (4) deducting the cost of aspiration or cleaning. The net profit from the screened or aspirated wheat shipments was compared to the net profit from those shipments that were neither screened nor aspirated.
Prices and costs related to this analysis were:

Wheat price -- $3.65 per bushel less average price discount for unscreened, and aspirated shipments respectively.

Investment Costs:

Annual Interest Rate[9] -- 13.0 percent

Depreciation -- 20 percent of the original value annually

Operating Costs

Screener -- 1.62 cents per bushel
Aspirator -- 1.03 cents per bushel

(See Appendix A for Cost Calculations)

The following list shows the alternative values used in the profit/loss analysis.

Percentage of Dockage Removed[10]
by Screening: 1.17 percent
by Aspiration: 0.76 percent

Annual Bushel Volumes Aspirated or Cleaned -- 250,000 and 500,000 bushels

Transportation Rates -- Truck: 25 cents per bushel and 25 Rail Car-Export: 62 cents per bushel

[9]Annual interest cost over the lifetime of facilities is based on one-half of 13.0 percent since average depreciated value is only half of the original value and hence the amount of borrowed money used is reduced at the same rate over the life of the investment.

[10]The percentage of dockage removed by screening and aspiration was the weight recorded by the elevator operator, expressed as a percent of the total weight of the grain screened or aspirated.

Values of Screenings -- $2.00, $2.50, $3.00 per hundredweight

A lower value was needed for the liftings to have the aspiration operation break-even than to have the screenings operation break-even. The value of liftings ranged from $0.17 to $1.66 per hundredweight. However, for a break-even point for the screener, the range for the value of screenings was from $3.22 to $4.27 per hundredweight. (See Table 3)

Table 3

Value of Screenings or Liftings Needed to Break-even in Screening or Aspiration Operations for Selected Combinations of Bushels Handled, Screening Rates, and Transportation Rates

Annual Volume Handled and Screened (bushels)	Screening Rate[a] (%)	Transportation Rate (¢ per bushel)	Value of Screenings Needed to Break-even ($ per cwt)
	SCREENING		
250,000	1.17	25	4.27
250,000	1.17	62	3.65
500,000	1.17	25	3.83
500,000	1.17	62	3.22
	ASPIRATION		
(con't)	Lifting Rate[a]	(con't)	Value of Liftings
250,000	0.76	25	1.66
250,000	0.76	62	1.04
500,000	0.76	25	0.79
500,000	0.76	62	0.17

[a]See footnote 10 for how the rate was determined.

Payback Period

The payback method provides a measure to compare how soon alternate, original investments are repaid by the profits. The elevator operator wished to know how soon he would receive sufficient earnings to recover his initial investment. This is especially important since he uses the screener or aspirator only two or three years out of every five years to reduce dockage levels below 0.5 percent.

Different cases of quantity of wheat screened or aspirated, shipping rates, and screening values were simulated. In all, 16 cases were analyzed. The general trend favored a larger original wheat volume, an export shipping rate of 62 cents per bushel, and the operation of the aspirator over the screener.

The most favorable payback period was with the aspirator, listed as case 12A (see Table 4), for 500,000 bushels of wheat, 62 cents shipping rate, and $3.00 per hundredweight for liftings. This case yielded yearly profit of $6,452.37 and a payback period of 14 months. Even at $2.00 per hundredweight (case 10A) for liftings, this case would have yielded the fourth best payback period. The least favorable payback period (case 2S) was with the screener, 500,000 bushels of wheat, 25 cents shipping rate and $3.00 per hundredweight for the screenings. This created a profit of only $222.56 per year and a payback period of 26.2 years.

Table 4

Payback Period for Screener and Aspirator

Case	Original Bushels	Shipping Rate (¢/bu)	Screenings or Liftings ($/cwt)	Savings: Total Net Profit ($)	Payback Period (years)
		SCREENER[a]			
1S[b]	250,000	62	3.00	421.57	13.83
2S	500,000	25	3.00	222.56	26.20
3S	500,000	62	2.50	632.17	9.22
4S	500,000	62	3.00	2387.16	2.44
		ASPIRATOR[c]			
1A[d]	250,000	25	2.00	387.62	19.35
2A	250,000	25	2.50	957.61	7.83
3A	250,000	25	3.00	1527.61	4.91
4A	250,000	62	2.00	1094.40	6.85
5A	250,000	62	2.50	1664.39	4.51
6A	250,000	62	3.00	2234.39	3.36
7A	500,000	25	2.00	2758.79	2.72
8A	500,000	25	2.50	3898.79	1.92
9A	500,000	25	3.00	5038.79	1.49
10A	500,000	62	2.00	4127.38	1.80
11A	500,000	62	2.50	5312.38	1.41
12A	500,000	62	3.00	6452.37	1.16

[a] Percentage of material removed by screening — 1.17 percent and original investment — $5,830.

[b] S=Screener

[c] Percentage of material removed by aspiration —0.76 percent and orginal investment $7,500.

[d] A=Aspirator

GENERAL SUMMARY

1. This study shows that removing dockage to less than 0.5 percent at this country elevator level was economically profitable.

2. The removal of dockage material increased gross proceeds from sales by:

   a) Lowering the price discount for the screened and aspirated shipments.

   b) Creating a new sales market for the removed dockage.

   It is important to note here that this study dealt with relatively small amounts of dockage removal -- 1.17 percent and 0.76 percent. The net profit should be higher if the percentage of dockage removed is greater.

3. Removing dockage material increased the test weight and decreased transportation cost.

4. Removing dockage material increased total cost by increasing operation, depreciation, and interest costs. However, cost increases were less than the combined increases in gross proceeds and savings or reduction in transportation cost.

5. The value of the liftings or screenings calculated to determine the break-even point ranged from $0.17 to $1.16 per hundredweight for the four aspiration cases and from $3.22 to $4.27 per hundredweight for the four screening cases.

6. Net profit attributed to aspiration increased when the volume increased from 250,000 bushels to 500,000 bushels and when the shipping distance increased from the local truck cost of 25 cents per bushel to the unit-train cost of 62 cents per bushel.

COMPARATIVE SUMMARY

Aspiration Versus Screening

1. The screener noticeably reduced the level of shrunken and broken kernels, while the aspirator did not.

2. The screener removed a higher percentage of dockage from the wheat and decreased transportation cost at a greater rate.

3. The aspirator was economically profitable at values for liftings under $2.00 per hundredweight, while the screener was not profitable until the screenings values were between $3.22 and $4.27.

4. The payback period was shorter for almost all the aspiration cases than for all but one of the screening cases. The most favorable payback period for the aspirator was 14 months, whereas the most favorable one for the screener was 30 months.

5. The aspirator had a lower operating cost and removed less material to attain comparable results in decreased dockage levels, so more material was sold as wheat.

APPENDIX A

Operating Cost Calculation

For Aspiration:

250,000 bushels ÷ 1500 bushels per hour = 166.67 hours

166.67 hours x $10 per hour = $1666.67

Shrink loss is 0.1% x 250,000 bushels = 250 bushels x $3.65 = 912.50

$2579.17

$2579.17 ÷ 250,000 bushels = 1.03¢/bushel

Note: The $10 per hour represents labor and energy cost.

For Screening:

250,000 ÷ 800 bushels per hour = 312.5 hours

312.5 hours x $10 per hour = $3125.00

Shrink loss is 0.1% x 250,000 bushels = 250 bushels x $3.65 = 912.50

$4037.50

$4037.50 ÷ 250,000 bushels = 1.62¢/bushel

Note: The $10 per hour represents labor and energy cost.

APPENDIX B

Definition of Dockage and Foreign Material

The official definition of dockage: "All matter other than wheat which can be removed readily from a test portion of the original sample by use of an approved device (Carter Dockage Tester) in accordance with procedures prescribed in the Grain Inspection Manual. Also (included are) underdeveloped, shriveled, and small pieces of wheat kernels removed in properly separating the material other than the wheat and which cannot be recovered by properly rescreening or recleaning."

Foreign material: "All matter other than the wheat which remains in the sample after the removal of dockage and shrunken and broken kernels."

SOURCE: Washington, D.C., United States Department of Agriculture, Federal Grain Inspection Service, Grain Inspection Handbook - Book II., Grain Grading Procedures, January 1, 1980, pages 2-18 and 2-43.

APPENDIX C

Nutritive Value of Liftings from 1984 Wheat Crop Compared with Nutritive Value of Wheat, Wheat Millrun and Wheat Middlings

Item	Moisture	Protein[a]		Fiber[a]		Fat[a]		Ash[a]	
		As is	14% Basis	As is	14% Basis	As is	14% Basis	As is	14% Basis
C[b]-1	10.2	14.6	14.05	4.1	3.91	1.9	1.82	2.4	2.30
C -2	10.2	15.9	15.20	4.4	4.21	1.8	1.72	2.6	2.49
C -3	9.9	15.9	15.15	5.4	5.15	1.7	1.62	3.3	3.15
C -4	10.3	15.1	14.49	5.1	4.89	1.6	1.54	2.9	2.75
C -5	10.4	14.9	14.29	4.0	3.84	1.6	1.53	2.3	2.18
C -6	10.4	16.1	15.45	5.9	5.66	1.7	1.63	3.0	2.85
C -7	9.7	16.8	16.03	11.5	10.95	3.8	3.62	5.5	5.24
C -8	9.8	16.1	15.34	11.9	11.35	4.0	3.81	5.9	5.63
C -9	9.4	16.3	15.48	11.5	10.92	3.6	3.42	5.0	4.75
C-10	9.3	16.1	15.25	11.9	11.28	3.9	3.70	5.0	4.74
C-11	9.3	15.2	14.42	12.4	11.76	2.6	2.47	5.5	5.21
C-12	9.1	15.1	14.29	13.7	12.96	2.6	2.46	6.5	6.15
Total	——	——	179.44	——	96.88	——	29.34	——	47.44
Average	——	——	14.95	——	8.07	——	2.44	——	3.95
Hard Wheat[c]	14.0	——	13.59	——	2.40	——	1.50	——	1.70
Wheat Millrun[c]	12.0	15.0	14.66	8.5	8.31	4.0	3.91	5.5	5.37
Wheat Middlings Standard[c]	12.0	15.5	15.15	7.5	7.33	4.0	3.91	5.5	5.37

[a] As is = Percentage based on sample moisture and 14% Basis = Percentage corrected on standard moisture percentage at 14 percent and protein percent is equal to N x 6.25.

[b] C-1, C-2, ... C-12 = Different samples of liftings aspirated from Kansas wheat shipments.

[c] Data from 1984 Feedstuffs Analysis Table; Minneapolis, MN, Miller Publishing Company, Feedstuffs, March 29, 1984, Page 33.

KANSAS GRAIN & FEED DEALERS Association

1722 NORTH PLUM, BOX 949 A/C 316 662-7911 HUTCHINSON, KANSAS 67504-0949

STATEMENT OF THE

KANSAS GRAIN AND FEED DEALERS ASSOCIATION

TO THE SENATE COMMITTEE ON AGRICULTURE

SENATOR JIM ALLEN, CHAIRMAN

REGARDING SENATE BILL 23

FEBRUARY 13, 1985

Chairman Allen and members of the Senate Agriculture Committee, I am Tom R. Tunnell, Executive Vice President of the Kansas Grain and Feed Dealers Association which has over 900 members. Our association represents the entire spectrum of the grain handling, storage and processing industry encompassing the country/terminal elevators, flour mills, and large multi-national grain exporters.

At the outset let me state that I am not testifying here today in formal opposition to SB 23; however, I have been instructed by the officers of my association to explain to you three major concerns that need to be addressed with the marketing concept embodied in this bill.

First, this legislation would discriminate against at least 50% of Kansas wheat producers on an annual basis. To illustrate this point, I have attached to my testimony a page from the 1984 Kansas Wheat Quality Report compiled by Kansas Crop and Livestock Reporting Service. As you can see, during the period 1977 to 1984 the percentage of U.S. #1 wheat

attachment C
2/13/85

produced in Kansas varied from a high of 63% to a low of 36% and averaged 48% over this eight year period.

Second, it is our understanding the establishment of a 100% Kansas finest grain marketing program is in response to foreign buyer complaints concerning the quality of grain exported from this country. Also attached for your information is a summary of foreign buyer complaints relating to inspection and weighing of grain exported from the United States in fiscal year 1984 as compiled by the Federal Grain Inspection Service.

You will note on this summary there were only a total of 24 complaints filed by foreign buyers during this period, and of those only three were found to be valid by FGIS. To our knowledge this is the only documented listing of foreign buyer complaints for the past year.

Third, in our opinion the current U.S. grain exporting marketing system, considered the best of any in the world, adequately markets the Kansas grain producer's product. To illustrate this point, please turn to the vessel loading record of Union Equity Cooperative, Houston, Texas for 1984. As documented, last year Union Equity loaded 129,516,985 bushels of wheat of which 67% was shipped with less than 0.5% dockage. While this represents only one exporter's records, we feel it can be assumed that to be competitive, other exporters must ship the same quality of grain.

In summation, Mr. Chairman, while we applaud any effort that would increase the volume of Kansas produced grain exported, our members have reservations regarding cost versus benefit of SB 23.

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Kansas WHEAT QUALITY

1984

KANSAS STATE BOARD OF AGRICULTURE

KANSAS WHEAT COMMISSION

GRADES, DOCKAGE AND GRADE DEFECTS

Wheat grading No. 2 or better totaled 89 percent of the 1984 crop, 5 points lower (39.5 million bushels less) than the 1983 crop. Between 98 and 99 percent of the crop in western Kansas graded No. 2 or better. The east central district posted the lowest average grade with only 63 percent grading No. 2 or better, far less than the 94 percent in this category a year ago. The south central had 92 percent of the wheat grading No. 2 or better, an increase from the 87 percent last year. The north central, central, northeast and southeast districts all had less wheat grading No. 2 or better than in 1983.

Eighteen percent of the samples had dockage over 0.9 percent, twice as much as last year. The best dockage record was claimed in the west central district where only 10 percent of the crop had dockage over 0.9 percent. The worst dockage record was in the northwest and north central districts, each with 24 percent of the total over 0.9 percent.

Grade defects totaled 3.0 percent, 0.4 point above 1983 and 0.1 point above the 10-year average. The increase from a year ago was due primarily to the increase in shrunken and broken kernels in all but the northwest and west central districts. All areas except the northwest and west central also had shrunken and broken kernel percents equal to or greater than the 10-year average.

PERCENTAGE OF KANSAS WHEAT IN EACH GRADE

Year	District									State
	NW	WC	SW	NC	C	SC	NE	EC	SE	
					Grade No. 1					
1977.....	62	76	78	46	38	32	28	19	53	51
1978.....	46	42	35	25	37	44	27	49	71	39
1979.....	40	47	51	14	44	57	35	42	78	45
1980.....	28	14	10	58	41	34	88	81	52	36
1981.....	56	50	59	45	37	57	72	23	66	51
1982.....	51	73	87	15	48	54	8	6	25	52
1983.....	61	80	83	62	73	49	81	51	20	63
1984.....	78	81	62	25	27	37	8	7	25	45
					Grade No. 2					
1977.....	37	23	21	45	42	48	52	21	24	36
1978.....	52	55	61	62	55	42	60	39	24	52
1979.....	52	49	47	46	44	39	59	38	18	44
1980.....	64	72	72	36	51	56	10	14	42	54
1981.....	38	44	37	46	45	28	21	54	26	37
1982.....	46	25	12	51	37	39	42	18	36	34
1983.....	37	18	16	33	24	38	18	43	65	31
1984.....	20	18	37	49	57	55	77	56	56	44
					All other grades					
1977.....	1	1	1	9	20	20	20	60	23	13
1978.....	2	3	4	13	8	14	13	12	5	9
1979.....	8	4	2	40	12	4	6	20	4	11
1980.....	8	14	18	6	8	10	2	5	6	10
1981.....	6	6	4	9	18	15	7	23	8	12
1982.....	3	2	1	34	15	7	50	76	39	14
1983.....	2	2	1	5	3	13	1	6	15	6
1984.....	2	1	1	26	16	8	15	37	19	11

Summary of Inspection and Weighing
Foreign Complaints - (Fiscal Year 1984)

Country	Grain	F/I*	No. of Complaints	Nature of Complaint
Saudi Arabia	Barley	F	1	Dust
Belgium	Corn	F	1	Excessive Damage, Broken Corn and Foreign Material
El Salvador	Corn	I	1	Aflatoxin
England 1/	Corn	I	1	Excessive Damage
Korea	Corn	F	1	Excessive Broken Corn and Foreign Material
Peru	Corn	F	1	Excessive Heat Damage, Broken Corn, and Foreign Material
Portugal	Corn	F	1	Aflatoxin
South Africa	Corn	F	1	Aflatoxin
Venezuela	Corn	I	1	Excessive Damage
Denmark	Soybeans	F	1	Excessive Foreign Material
Greece	Soybeans	I	2	Excessive Foreign Material
Italy	Soybeans	I	1	Excessive Foreign Material
Japan	Soybeans	I	1	Excessive Foreign Material
Netherlands	Soybeans	I	1	Excessive Foreign Material
West Germany 1/	Soybeans	F	1	Previous Cargo Contamination
Brazil	Wheat	I	1 ✓	Bacterial Contamination
Japan	Wheat	F	2 ✓	Excessive Heat Damage
Peru	Wheat	F	2 ✓	Excessive Shrunken and Broken Kernels
Portugal	Wheat	F	1 ✓	Short-Weight
Singapore	Wheat	I	1 ✓	Low Protein
Venezuela 1/	Wheat	I	1 ✓	Short-Weight
		TOTAL	24	

1/ Valid complaints

*F- A Formal Complaint is recorded when a Form FAS-802, "Foreign Agricultural Service (FAS) Foreign Trade Discrepancy Inquiry (Grain, oilseeds, and other commodities)" is received by FGIS.

*I- An Informal Complaint is recorded when an inquiry, either verbal or written, is submitted through the Attache or FAS to FGIS.

Grade Requirements for WHEAT*

U.S. Grade No.	Minimum test weight per bushel		Maximum limits of —						
			Defects					Wheat of other Classes	
	Hard Red Spring Wheat or White Club Wheat	All Other Classes	Heat Damaged Kernels	Damaged Kernels (total)	Foreign Material	Shrunken & Broken Kernels	Defects (total)	Contrasting Classes	Wheat of Other Classes (total)
	Pounds	Pounds	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1	58.0	60.0	0.2	2.0	0.5	3.0	3.0	1.0	3.0
2	57.0	58.0	0.2	4.0	1.0	5.0	5.0	2.0	5.0
3	55.0	56.0	0.5	7.0	2.0	8.0	8.0	3.0	10.0
4	53.0	54.0	1.0	10.0	3.0	12.0	12.0	10.0	10.0
5	50.0	51.0	3.0	15.0	5.0	20.0	20.0	10.0	10.0

U.S. Sample Grade shall be wheat which does not meet the requirements for any of the grades from No. 1 to No. 5, inclusive; or which contains more than two crotalaria seeds (Crotalaria spp.) in 1,000 grams of grain, or contains castor beans (Ricinus communis), stones, broken glass, animal filth, unknown foreign substances, or commonly recognized harmful or toxic substances; or which is musty, sour or heating; or which has any commercially objectionable foreign odor except of smut or garlic; or which contains a quantity of smut so great that any one or more of the grade requirements cannot be applied accurately; or which is otherwise of distinctly low quality.

(See back of this card for Special Grades)

*This chart is not the complete standards for wheat. For more details see the handbook of the official standards.

	TW	HD	TD	FM	S&B	TDEF	CC.	WOC	
U.S. NO. 2HRW	58.0	0.2	4.0	1.0	5.0	5.0	2.0	5.0	(Source: USDA Grain Standards

VESSEL	BU. LOADED	GRADE	DKG.	TW	MO	TD	FM	S&B	TDEF	WOC	PROTEIN
JANUARY 1984											
JUUAL	930,861	2HRW	-	62.2	11.8	0.7	0.3	2.2	3.2	2.2	11.5
GULFWIND	381,389	2HRW	-	61.4	11.6	0.8	0.2	2.4	3.4	0.3	12.7
YICK WING	1,498,513	2HRW	0.5	61.0	11.8	0.8	0.4	3.2	4.4	2.4	11.7
ALBANY	1,130,756	2HRW	-	60.8	11.8	0.9	0.3	2.6	3.8	1.8	11.6
TRAMCO AMITY	1,102,311	2HRW	0.5	60.8	11.7	0.7	0.3	3.4	4.4	3.0	11.4
NEWAYS	1,833,510	2HRW	0.5	60.6	11.8	0.8	0.3	3.2	4.3	3.6	11.2
FEDERAL DANUBE	1,234,588	2HRW	-	61.0	11.8	0.7	0.3	2.7	3.7	1.7	11.4
DOCEMARTE	1,157,480	2HRW	-	61.4	11.6	0.6	0.2	2.8	3.6	0.1	11.6
FEBRUARY 1984											
OGDEN MISSOURI	1,360,278	2HRW	-	61.5	11.6	0.7	0.4	2.5	3.6	0.0	12.0
JOVIALITY	1,598,335	2HRW	0.5	60.9	11.5	0.7	0.4	3.4	4.5	0.0	11.5
AEGEAN WIND	1,102,362	2HRW	-	61.5	11.5	0.9	0.3	2.5	3.7	0.0	12.5
GOLDEN SHIMIZU	780,266	2HRW	-	61.4	11.7	0.9	0.3	2.5	3.7	0.0	11.1
GOLDEN KIMISIS	595,280	2HRW	-	60.8	11.8	1.1	0.3	2.5	3.9	2.2	12.0
TRADE WIND	902,099	2HRW	-	61.8	11.7	0.8	0.2	2.6	3.6	0.0	12.5
GOLDEN POLYDINAMOS	551,152	2HRW	-	61.1	11.8	1.3	0.4	2.6	4.3	0.6	12.0
FLORA C.	869,028	2HRW	-	62.2	11.6	0.9	0.3	2.4	3.6	0.8	12.5
CORAL VOLANS	173,622	2HRW	-	61.9	11.7	1.2	0.3	2.7	4.2	0.0	12.3
BORIS BUTOMA	2,458,766	2HRW	-	61.8	11.5	0.6	0.3	2.6	3.5	2.6	11.4
MARCH 1984											
MARSHAL ZHUKOV	2,379,118	2HRW	-	61.4	11.7	0.7	0.3	2.6	3.6	2.1	11.6
ADMUNDSON SEA	2,204,622	2HRW	0.5	60.8	11.5	0.8	0.4	3.4	4.6	0.2	11.2
AFRICAN AZALEA	264,552	2HRW	-	62.4	11.7	0.6	0.2	2.2	3.0	0.0	13.0
SOPHIE C.	876,378	2HRW	-	62.5	11.5	0.6	0.2	2.5	3.3	0.0	12.5
PANORMOS	606,299	2HRW	-	61.8	11.6	0.9	0.2	2.5	3.6	0.9	12.0
BUDI	694,400	2HRW	-	62.1	11.8	0.6	0.2	2.3	3.1	1.9	12.0
OGDEN AMAZON	103,892	2HRW	-	60.7	11.8	0.5	0.2	2.1	2.8	3.9	11.0

U. S. NO. 2HRW	TW	HD	TD	FM	S&B	TDEF	CC	WOC	Source: USDA
	58.0	0.2	4.0	1.0	5.0	5.0	2.0	5.0	Grain Standards

VESSEL	BU. LOADED	GRADE/FACTORS									
APRIL 1984		GRADE	DKG	TW	MO	TD	FM	S&B	TDEF	WOC	PROTEIN
SANDWICH	845,144	2HRW	-	60.5	11.7	1.2	0.3	2.6	4.1	3.5	11.6
ROWNTREE	271,727	2HRW	0.5	61.5	11.4	1.0	0.4	3.4	4.8	3.1	11.4
SALCANTAY	771,653	2HRW	0.5	61.2	11.6	0.8	0.3	3.3	4.4	3.1	11.2
PANAGIOTIS L.	959,973	2HRW	-	61.7	12.0	0.8	0.2	2.3	3.3	1.5	12.0
MARINE PRINCESS	662,847	2HRW	-	61.8	11.8	0.6	0.3	2.5	3.4	0.4	12.0
JOHN C.	885,564	2HRW	-	62.3	11.7	1.1	0.5	2.4	4.0	0.0	12.5
BRAVERY	1,157,415	2HRW	0.5	60.9	11.5	0.7	0.6	3.2	4.5	2.7	11.3
MAY 1984											
PHILIPPINE BO 2	964,566	2HRW	0.5	60.1	11.6	0.9	0.5	3.4	4.8	2.3	12.6
CAVALIER BULKER	1,041,732	2HRW	-	61.4	11.7	1.2	0.7	2.6	4.5	1.1	12.0
NAZALI K.	734,871	2HRW	-	60.7	11.5	0.6	0.6	2.7	3.9	2.8	11.2
AQUABELLE	1,555,027	2HRW	-	61.6	11.3	0.8	0.5	2.5	3.8	1.2	11.4
DESERT FALCON	881,889	2HRW	-	62.0	11.4	0.7	0.6	2.1	3.4	0.0	12.5
YANNIS D.	948,801	2HRW	-	61.7	11.5	0.7	0.7	2.3	3.7	0.0	11.5
DESERT WIND	878,215	2HRW	-	62.1	11.5	0.5	0.6	1.9	3.0	1.0	12.6
JUNE 1984											
AEGIS BRAVERY	936,454	2HRW	-	62.0	11.4	0.6	0.5	2.2	3.3	0.2	11.8
NEPTUNE VOLANS	265,963	2HRW	-	61.7	11.4	0.4	0.7	2.5	3.6	0.1	11.5
RIO NEGRO	1,273,228	2HRW	-	61.9	11.4	0.6	0.7	2.4	3.7	0.3	11.6
HUNTER BOW	1,991,601	2HRW	0.5	61.6	11.6	0.4	0.6	2.9	3.9	0.8	12.0
BUFFALO	848,818	2HRW	0.5	61.7	11.6	0.6	0.5	3.0	4.1	1.8	11.6
HO MING	93,700	2HRW	0.5	60.6	12.1	0.3	0.1	1.9	2.3	0.0	12.7
HO MING	303,149	2HRW	-	62.3	11.4	0.4	0.6	2.0	3.0	1.3	12.0
URFA	925,984	2HRW	-	61.7	11.7	0.7	0.5	2.3	3.5	2.0	11.8
JOANNA	723,884	2HRW	-	62.4	11.4	0.6	0.5	2.4	3.5	1.3	11.7
GOLDEN HOPE	829,343	2HRW	0.5	61.6	11.6	0.6	0.5	3.1	4.2	2.1	11.6
AFRICAN BEGONIA	262,729	2HRW	0.5	60.9	11.9	0.4	0.6	2.3	3.3	0.3	12.8

U.S. NO. 2HRW	TW	HD	TD	FM	S&B	TDEF	CC	WOC	Source: USDA
	58.0	0.2	4.0	1.0	5.0	5.0	2.0	5.0	Grain Standards

VESSEL	BU. LOADED	GRADE/FACTORS									
		GRADE	DKG	TW	MO	TD	FM	S&B	TDEF	WOC	PROTEIN
JULY 1984											
LONE STAR	921,060	2HRW	-	62.2	11.4	0.6	0.4	2.4	3.4	1.9	13.1
JOSE OLAYA	883,776	2HRW	0.5	61.7	11.4	0.6	0.4	2.8	3.8	2.2	11.6
BOLU	595,965	2HRW	-	62.0	11.7	0.5	0.5	2.5	3.5	1.5	11.7
OCELOT	558,772	2HRW	-	62.2	11.5	0.6	0.7	2.4	3.7	2.3	11.5
TRADE VISION	771,653	2HRW	-	62.5	11.5	0.5	0.5	2.5	3.5	2.5	11.4
FOTINI L.	1,892,388	2HRW	-	62.4	11.6	0.6	0.4	2.5	3.5	2.1	11.6
REGINA FERRAZ	893,556	2HRW	0.5	61.6	11.5	0.5	0.6	3.2	4.3	2.2	11.5
AURORA	950,506	2HRW	0.5	61.7	11.4	0.5	0.3	2.6	3.4	0.2	12.0
MASOVIA	1,811,450	2HRW	-	62.2	11.6	0.5	0.3	2.5	3.3	2.5	11.6
AFRICAN DAHLIA	264,566	2HRW	0.5	61.2	11.7	0.7	0.2	2.1	3.0	0.0	12.8
IRENE'S ZEST	771,653	2HRW	0.5	60.8	11.6	0.6	0.2	2.2	3.0	0.1	13.2
CAPITAN MEDVEDEV	960,824	2HRW	-	62.3	11.5	0.5	0.2	2.6	3.3	2.6	11.4
KAPITAN DUBININI	500,266	2HRW	-	62.1	11.6	0.5	0.2	2.6	3.3	2.5	11.5
AUGUST 1984											
LENA	1,514,048	2HRW	-	62.3	11.7	0.6	0.3	2.6	3.5	2.1	11.5
ANNOULA	440,944	2HRW	-	61.4	11.3	0.4	0.2	1.8	2.4	0.0	13.1
JOHN C.	885,564	2HRW	-	62.2	11.4	0.7	0.3	2.2	3.2	0.0	12.5
AEGEAN LION	2,045,286	2HRW	-	62.3	11.6	0.6	0.2	2.6	3.4	2.6	11.7
ALEXANDER T.	449,380	2HRW	-	62.2	11.7	0.4	0.2	2.6	3.2	1.8	11.4
KAPITAN KHROMSTOV	501,574	2HRW	-	62.4	11.8	0.4	0.2	2.5	3.1	1.3	11.7
FJORD MARINER	1,686,062	2HRW	-	62.3	11.4	0.4	0.2	2.6	3.2	0.6	11.5
NOBLE SUPPORTER	1,330,560	2HRW	-	62.4	11.4	0.5	0.2	2.7	3.4	1.9	11.6
FJORD BRIDGE	1,690,789	2HRW	0.5	61.6	11.5	0.5	0.2	3.5	4.2	3.3	11.5
ANNIE	1,092,915	2HRW	-	62.4	11.5	0.5	0.2	2.6	3.3	1.3	11.5
ANNIE	1,022,517	2HRW	0.5	61.9	11.5	0.4	0.2	3.5	4.1	0.4	11.4
MARILULA	1,739,944	2HRW	0.5	61.4	11.5	0.5	0.3	3.5	4.3	1.6	11.6
MARINA L.	1,238,320	2HRW	-	62.3	11.5	0.4	0.2	2.6	3.2	0.3	12.0
NADIA	1,332,930	2HRW	-	62.2	11.6	0.9	0.2	2.6	3.7	1.2	11.7
COMET	436,866	2HRW	-	62.0	11.6	0.6	0.1	2.2	2.9	0.7	13.2

U.S.NO. 2HRW	TW	HD	TD	FM	S&B	TDEF	CC	WOC	Source: USDA
	58.0	0.2	4.0	1.0	5.0	5.0	2.0	5.0	Grain Standards

VESSEL	BU. LOADED	GRADE/FACTORS								
AUGUST 1984 Continued		GRADE	DKG	TW	MO	TD	FM	S&B	TDEF	WOC	PROTEIN
GAMAL ABDEL NASER	600,219	2HRW	-	62.0	11.5	1.3	0.2	2.6	4.1	2.4	11.7.
GAMAL ABDEL NASER	1,350,257	2HRW	0.5	61.6	11.5	1.2	0.2	3.4	4.8	2.8	11.8
CHRISTINA C.	874,540	2HRW	-	62.0	11.6	0.9	0.2	2.3	3.4	1.1	12.6
PORTOBELLO	1,497,216	2HRW	-	62.2	11.5	1.4	0.2	2.5	4.1	2.9	11.6
SEPTEMBER 1984											
MARY	1,203,374	2HRW	-	62.1	11.6	1.2	0.2	2.6	4.0	2.3	11.7
MARY	238,882	2HRW	0.5	61.9	11.5	1.1	0.2	3.0	4.3	1.0	11.5
ALTHEA	810,236	2HRW	0.5	61.6	11.6	0.6	0.2	3.6	4.4	3.1	11.7
DESERT PRINCE	896,588	2HRW	0.5	61.8	11.4	0.8	0.2	3.0	4.0	0.2	12.6
EVY L.	935,874	2HRW	0.5	61.7	11.7	0.5	0.3	3.5	4.3	1.9	11.6
SEALUCK	1,541,184	2HRW	0.5	61.7	11.5	0.5	0.2	3.7	4.4	3.2	11.7
MARIA SPERANZA	1,813,385	2HRW	0.5	61.6	11.6	0.5	0.2	3.5	4.2	0.6	11.7
OLYMPIC LEADER	954,202	2HRW	0.5	61.6	11.6	0.5	0.2	3.7	4.4	0.1	11.5
FARMSUM	1,503,324	2HRW	0.5	61.5	11.6	0.7	0.2	3.5	4.4	1.5	11.6
OTTO LEONARDT	1,422,047	2HRW	0.5	61.6	11.5	0.5	0.2	3.7	4.4	2.2	11.5
KAPITAN GEORGE L.	1,310,267	2HRW	-	62.3	11.5	0.5	0.2	2.5	3.2	2.1	11.6
ANITA DAN	1,301,685	2HRW	-	62.3	11.5	0.5	0.2	2.8	3.5	0.4	11.5
FOTINI L.	1,892,535	2HRW	-	62.3	11.3	0.6	0.2	2.8	3.6	0.2	11.5
CAPTIAN GEORGE	1,273,066	2HRW	0.5	61.8	11.4	0.6	0.2	3.2	4.0	2.6	11.6
TRAMONTANE	1,230,603	2HRW	-	62.0	11.5	0.5	0.2	2.6	3.3	1.0	11.7
IVI	929,658	2HRW	-	62.2	11.5	0.6	0.2	2.7	3.5	1.5	11.5
BALTIC MERMAID	1,999,050	2HRW	-	62.2	11.6	0.6	0.2	2.7	3.5	1.3	11.6
OCTOBER 1984											
TUBUL	1,214,435	2HRW	-	62.2	11.5	0.5	0.2	2.7	3.4	0.1	11.5

U.S.NO. 2HRW	TW	HD	TD	FM	S&B	TDEF	CC	WOC	Source: USDA
	58.0	0.2	4.0	1.0	5.0	5.0	2.0	5.0	Grain Standards

VESSEL	BU. LOADED	GRADE/FACTORS								
		GRADE	DKG	TW	MO	TD	FM	S&B	TDEF	WOC	PROTEIN
OCTOBER 1984 Continued											
EVNIKI	2,052,565	2HRW	-	62.2	11.5	0.5	0.2	2.7	3.4	0.1	11.5
NEFELI	719,013	2HRW	0.5	61.7	11.6	0.5	0.6	3.4	4.5	1.1	11.7
LARRY L.	397,359	2HRW	-	62.2	11.7	0.6	0.2	2.6	3.4	0.5	11.9
LARRY L.	549,777	2HRW	0.5	61.7	11.5	0.5	0.2	3.3	4.0	0.1	11.9
ARPAD,	1,256,693	2HRW	-	62.2	11.5	0.5	0.4	2.6	3.5	2.6	11.8
ILONA	1,648,727	2HRW	-	62.3	11.5	0.5	0.5	2.6	3.6	2.3	11.4
ILONA	147,645	2HRW	0.5	62.4	11.4	0.3	0.1	2.9	3.3	0.2	11.8
MERAKILIS	1,781,044	2HRW	0.5	61.7	11.5	0.5	0.5	3.4	4.4	2.7	11.8
DOCEBRISA	1,219,947	2HRW	-	62.1	11.8	0.5	0.6	2.6	3.7	2.6	11.9
ELAFINA	782,732	2HRW	-	62.3	11.7	0.4	0.5	2.6	3.5	1.1	12.0
SEA WIND	1,120,000	2HRW	-	62.2	11.7	0.5	0.5	2.6	3.6	2.3	11.7
NOVEMBER 1984											
CORAL SEA	163,331	2HRW	-	62.3	11.1	0.8	0.2	2.4	3.4	0.1	12.0
ALIKI II	705,495	2HRW	-	62.0	11.6	0.9	0.1	2.4	3.4	0.0	12.7
ARTIC OCEAN	164,324	2HRW	0.5	61.5	11.3	0.5	0.2	2.8	3.5	0.0	12.0
CORAL VOLANS	280,698	2HRW	0.5	61.5	11.4	0.4	0.5	3.3	4.2	0.0	12.0
CIUDAD DE MANTA	165,354	2HRW	0.5	62.5	11.4	0.5	0.2	2.9	3.6	0.0	12.0
DOCEVEGA	1,273,228	2HRW	-	62.2	11.8	0.5	0.5	2.6	3.6	1.6	11.3
DECEMBER 1984											
NEPTUNE VOLANS	281,643	2HRW	-	61.8	11.4	0.5	0.2	2.6	3.3	0.0	12.0
RIO VERDE	1,273,228	2HRW	-	62.3	11.8	0.5	0.5	2.6	3.6	2.3	11.6
MISTI	964,566	2HRW	-	62.3	11.8	0.4	0.6	2.6	3.6	1.6	11.3
OCEAN PINE	923,409	2HRW	-	62.2	11.6	0.6	0.4	2.6	3.6	1.8	11.5
STAMY	1,996,959	2HRW	0.5	61.6	11.6	0.6	0.5	3.2	4.3	2.6	11.7
LUIS BANCHERO	964,566	2HRW	-	62.4	11.7	0.5	0.5	2.4	3.4	1.7	11.7
OLIVIA	371,128	2HRW	-	62.6	11.7	0.5	0.6	2.4	3.5	0.1	11.7

	TW	HD	TD	FM	S&B	TDEF	CC	WOC	
U.S.NO. 2HRW	58.0	0.2	4.0	1.0	5.0	5.0	2.0	5.0	Source: USDA Grain Standards

VESSEL	BU. LOADED	GRADE	DKG	TW	MO	TD	FM	S&B	TDEF	WOC	PROTEIN
DECEMBER 1984 Continued											
BEERSHEVA	980,336	2HRW	0.5	61.7	11.6	0.6	0.4	2.9	3.9	0.2	12.0
LAGO CZABAL	142,204	2HRW	-	62.3	11.8	0.5	0.3	2.5	3.3	0.0	11.4
IZHORA	424,409	2HRW	-	62.4	11.5	0.3	0.5	2.6	3.4	0.3	12.0
MARIA TOPIC	1,273,228	2HRW	-	62.4	11.8	0.5	0.6	2.5	3.6	0.2	11.8
FROTAOESTE	870,021	2HRW	-	62.0	11.7	0.6	0.4	2.6	3.6	0.2	11.3
RAMPLA JUNIORS	159,879	2HRW	-	62.2	11.9	0.6	0.5	2.4	3.5	0.0	13.2
GOLDEN PANAGIA	682,582	2HRW	-	62.0	11.8	0.6	0.3	2.7	3.6	0.2	11.4

BUSHELS LOADED WITH NO DOCKAGE	86,346,610
BUSHELS LOADED WITH 0.5% DOCKAGE	43,170,375
TOTAL BUSHELS OF WHEAT LOADED IN 1984	129,516,985

67% OF ALL WHEAT LOADED WAS WITH LESS THAN 0.5% DOCKAGE IN 1984.

from Fuller

Kansas Farm Bureau, Inc.
2321 Anderson Avenue, Manhattan, Kansas 66502 / (913) 537-2261

STATEMENT
of
KANSAS FARM BUREAU
to

SENATE AGRICULTURE COMMITTEE
Senator Jim Allen, Chairman

RE: S.B. 23 - Establishing the 100 percent
Kansas Finest Quality Grain Marketing Program

by
Bill R. Fuller, Assistant Director
Public Affairs Division
Kansas Farm Bureau

February 13, 1985

* *

Mr. Chairman and members of the Committee:

We are pleased to have this opportunity to speak on behalf of the farmers and ranchers who are members of the Kansas Farm Bureau as you study a legislative proposal to establish the 100 percent Kansas Finest Quality Grain Marketing Program.

We applaud the goals of the sponsors of S.B. 23. I am sure part of the drive behind this bill is an effort to address recent complaints expressed by some buyers of the U.S. wheat:

1. "American wheat is of such poor quality that foreign grain buyers are forced to buy from Canada and elsewhere."
2. "American wheat is so contaminated that up to 1/5 of a shipment is unusable."
3. "There seems to be a certain amount of discontent with the quality of our wheat."

(See attached newspaper clippings)

2/13/85 attachment D

However, in the recent Grain Export Inspection Trip to Houston and Galveston by members of this Committee, you found that poor quality is not the problem in all cases.

In addition, the farmers who are members of the Kansas Farm Bureau commend the sponsors of S.B. 23 for your attempt to transfer the high quality wheat produced by Kansas farmers to the millers of the importing nations. Maintaining the U.S. share of the export market, and hopefully expanding that share, is an absolute necessity when we consider the depressed farm economy, unemployment and the balance-of-payments deficits. In fact, we are told that each $1 billion in farm exports from the U.S. creates jobs for 35,000 people.

Even though our members support the concept and goals of this proposed legislation, we have several suggestions and concerns:

1. We strongly recommend that the vast expertise and successful experience of The International Grains Program become a major contributor to the development and operation of this new program.
2. We suggest that the farmer-owned cooperative system be considered as the delivery system. In fact, much of the system is now in place. As farmer-owned cooperatives now own country elevators, railroad hopper cars, terminal elevators and export facilities. On the other hand one can ask if this marketing system is economically feasible, why is it not being operated at this time--or can foreign buyers already acquire quality grain if they are willing to pay the price???
3. We recommend that this Kansas Legislature, representing the largest wheat producing state in the U.S., take the lead in

working with the Federal Grain Inspection Service, U.S.D.A. and Congress in strengthening the U.S. grain standards for improving the quality of grain exported from this nation.

4. We ask that the private sector continue to be the major factor in exporting Kansas wheat.

In closing, the Kansas Farm Bureau supports the goal set out in S.B. 23. We only ask that careful deliberation be conducted to assure that the program will truly benefit all Kansas wheat producers. Thank you.

Buyers say U.S. wheat lacks quality

KANSAS CITY, Mo. (AP) — American wheat is of such poor quality that foreign grain buyers are forced to buy from Canada and elsewhere, a group of foreign buyers agreed Friday.

American wheat often fails to live up to specifications agreed upon before sale, the buyers said. It often arrives in foreign ports so contaminated that up to one-fifth of a shipment is unusable, the importers said at a wheat conference in Kansas City sponsored by the International Grains Program at Kansas State University.

The frank criticism from the foreigners, who included government buyers, importers and millers, could mean continued trouble for American farmers, who are dependent on foreign markets to sell their huge wheat crop.

"In all analyses we make, we see that Canadian wheat is 99 percent more clean than American wheat in all cases," said Pieter van de Gaag, director of Trigo, the second-largest wheat importer in the Netherlands.

Canada has taken an increasing share of the European market once held by the U.S. American wheat sales dropped 11.3 million metric tons between June 1981 and July 1984, and are expected to fall another 2 million metric tons by 1985.

"We are facing quality problems that has forced us to reconsider buying all of our wheat in the United States," said Meir Yagil, an official of Israel's Ministry of Trade and Industry.

Van de Gaad, Yagil and Reinhold Scharff, a West German miller, all said their laboratory tests of wheat shipped from the U.S. differed radically from quality certificates issued before shipping by the U.S. Federal Grain Inspection Service.

A shipment received this year by Wilhelm Werhahn Hansa Muhle of Germany was certified by the FGIS to have 5.4 percent total defects, but tests by the miller showed 20.8 percent total defects, Scharff said.

Other shipments have been 20 percent "non-millable," said Scharff, who represented Germany's second-largest miller. Scharff said shipments have been plagued by shrunken or broken kernels and foreign material even though the FGIS had certified the shipment as "clean" to an acceptable level.

"We have gotten protein in the 11.3 (percent) to 11.9 percent range when we have purchased 12 percent minimum," said Yagil. "We have found weevils in the wheat, or we have found traces of fumigants. It is understood we cannot accept such wheat."

The Europeans said the very reason they bought wheat from the U.S. was for quality. Scharff said Europe now produces abundant wheat crops, but blends the higher quality North American wheat with local crops to produce better quality flour.

"When we buy wheat we buy for quality reasons," he said. "It's not to get enough flour, it's to get good enough quality in the flour."

Eva Agnesi, president of Post Paolo Agnesi and Figli of Italy, said the kind of wheat her company buys from Canada — durum — is far superior to durum grown in the U.S.

Jim Suber

Kansas RFD

Cleanup time for 'dirty wheat'?

Background papers for Ag Media days at Kansas State University earlier this month outlined the complexities of the wheat grading system.

They clarified how buyers of American-grown wheat have come to know U.S. wheat as "dirty wheat."

The stuff called dockage seems to be the problem.

Dockage is material taken from wheat when it is cleaned on a special machine called the Carter Dockage Tester. It can be husks, straw and chaff. Or corn, soybeans, oats and barley. Or seeds, broken grain, undersized grain. The sum of these three categories equals dockage percentage.

Dockage does not affect grade. Percentage of dockage is determined before any grading tests. Hand sieves cannot be used to find out dockage. Dockage weight is subtracted from gross wheat weight before the wheat cost is calculated. Buyers should specify the desired dockage percentage in the purchase contract.

Dockage test results are certified by official inspectors this way: If the test shows zero to .49 percent, the certified dockage amount is zero. From .50 to .99 percent, the certified amount is .50, and so on.

In other words, one may allow actual dockage to exceed .49 percent of its certified amount.

Grain companies take advantage of that allowance, several professors said. They usually do it by blending in dirtier grains to bring the levels up to the ceiling; that is, .49 percent more than the certified, paper level.

That's big bucks and a reputation for dirty grain.

A related problem is that companies blend in enough much cheaper soft winter wheat with hard to take advantage of the allowable limits for soft in hard.

(That's one reason if you have Arkan next summer to shout it to the heavens and insist you get paid for hard wheat, not soft.)

> "In my foreign travels, there seems to be a certain amount of discontent with the quality of our wheat..."
>
> —Professor John Wingfield, grain scientist

Canada has long cleaned its grain and has a good reputation.

Quality and a good reputation are two items Professor John Wingfield, grain scientist, has been fighting for.

"In my foreign travels, there seems to be a certain amount of discontent with the quality of our wheat, which for the most part centers on foreign material," Wingfield said.

He explained that often foreign buyers don't have the equipment to clean the wheat, nor the means of disposing of the cleanings. Also the .49 percent dockage coupled with five classes, 10 subclasses and five numerical grades of wheat can be quite confusing.

Within the grading system are many tests, including those for the subcategories of total defects, which include foreign (non-wheat) material remaining in the sample.

Wingfield said it is difficult to determine if the United States farmers are losing sales because of the 'dirty wheat' reputation.

"The potential will become greater in coming years because we feel countries will become more discriminating."

A much louder problem in the industry deals with new wheats coming on line and the failure of the current visual grading system to classify them according to their end use.

The system has worked all right up until now, when one could look at some kernels and pretty much tell which of five classes it belonged in.

"New varieties are coming on with parentages from all over the world," Wingfield said. "They're producing wheats that have an end use function without looking like that class."

For example, Arkan can look like one of its parents, Arthur, which is a soft wheat. Yet, Arkan has the end use characteristics of a hard winter wheat. That is extremely different from the soft winter wheats, the way the Federal Grain Inspection Service classifies Arkan today using its visual tests.

"It's going to get worse," Wingfield said. "The geneticists say they are not going to dump what they have."

Indeed. Wheat variety developers Rollin Sears and Bill Bockus confirmed that an hour later in another visit. Years of work in finding higher yield, resistances to pests, better straws and proper milling and baking qualities would be lost.

Hard wheats yield flours for breadmaking; soft wheat is used for cakes, cookies and crackers; durum wheat produces semolina for spaghetti and noodle products.

It does matter.

Needed is a subjective device to determine hardness or softness. In some of the new wheats, Wingfield noted, different appearances even show up in the same head.

Similar appearances between some hard winter and hard spring wheats are also becoming realities.

"There are going to have to be some changes made," Wingfield said.

The difference in price between soft and hard wheat can often be as much as 90 cents a bushel, with soft being the cheaper. That's why farmers don't need to be raising scientifically hard wheat they have to sell as soft wheat.