

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 January 30, 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: David R. Galliard, Deputy Administrator
Federal Grain Inspection Service
Nancy E. Kantola, Kansas Cooperative Council
John Blythe, Kansas Farm Bureau

Senator Allen called the meeting to order. Senator Arasmith moved the minutes of the January 23 committee meeting be approved. Senator Gordon seconded the motion. Motion carried.

Senator Allen introduced David Galliard who spoke about grain grading standards. (see attachment A)

Questions ask and Mr. Galliard's answers were:

Does FGIS inspect grain after it has reached an export point? Yes, all export grain must be inspected by FGIS at the port.

Complaints about our grains are more numerous now. Why? 20-25 complaints per year used to be received, since last October we have received that many. Some complaints are about infestation or broken grains. Some countries do not understand our grades. So some complaints are because of misunderstanding.

Do you check ship after loaded to see if it will leak? Yes, we do.

Russians complain of bugs in our grain, where are the bugs coming from? Our grain is fumigated after it is loaded. Russia will not allow their grain to be fumigated with the material we fumigate with. Other countries are less strict so we have fewer complaints.

Does it take all shiploads of grain 30 days to reach Europe? Grain flakes every time it is moved, does Canada clean their grain as it is loaded for shipment? Yes, it takes 28 to 30 days for the grain to arrive in Europe. The Canadian grain is controlled by their government and it is cleaned several times.

For your research do you work with landgrant universities? Yes, we work with universities and especially in North Dakota, Illinois, and Kansas.

Senator Allen thanked Mr. Galliard and introduced Nancy Kantola.

Nancy stated Kansas Cooperative Council opposes SCR 1601 but not the intent of the resolution. An information sheet on U.S. Standards for wheat were handed out. (see attachment B)

Senator Allen introduced John Blythe, Kansas Farm Bureau who testified.

Mr. Blythe reported his organization supports SCR 1601 and recommended passage of this resolution as a way to initiate attention and action on the grain problems we face. (see attachment C)

Senator Allen announced the hearing on SCR 1601 closed.

Senator Allen stated the next committee meeting will be on February 6. He ask members to turn in any bills, at that time, that will be introduced as committee bills. Senator Allen ask the committee to note the handout booklet on chemigation from the State Board of Agriculture. They will be requesting a bill regarding chemigation next week.

There being no additional questions, Senator Allen declared the meeting adjourned.

FEDERAL GRAIN GRADING STANDARDS

We appreciate the opportunity to share FGIS views on grain grading standards.

The objective of the standards is to facilitate the marketing of grain by providing a common language for merchandising. The standards generally identify the physical and biological characteristics of the grain at the time of inspection. Test weight per bushel, broken kernels, damaged kernels, etc., are examples of factors in the standards.

Your resolution indicates that there is a growing concern about the need to establish separate factors for measuring broken grain and foreign material and the need to include factors that are related to end-use properties and the products to be made from that grain. While the goal of having standards that are related to end-use properties may be desirable, the goal is difficult to attain. The current standards have been in place for many years and are changed through a consensus of interested parties in the grain industry. Producers, merchandisers, importers, and eventually consumers are affected. Groups often have a vested interest in the standards and our task in FGIS is to interpret and evaluate comments to reach a reasonable and equitable solution.

One problem with end-use standards is trying to determine what end-use we are talking about. For example, about 50 percent of the corn crop is used for feed, 32 percent is exported, 8 percent reaches food channels, and 1 percent

Presentation by David R. Galliard, Deputy Administrator, Federal Grain Inspection Service, USDA, at Topeka, Kansas, on January 30, 1985.

attachment A
1/30/85

is used for the production of alcoholic beverages. What, then, is the end-use of corn? Although we are not certain of the utilization of exported corn, we know that domestically corn is used for feed, food, and various other uses. Before developing an end-use oriented standard, a choice must be made. If corn is to be used for feed, broken kernels become less important and our interest would lie in items such as: energy (TDN or Total Digestible Nutrients), digestible energy, crude fiber, protein, dry matter, minerals and vitamins. If the corn buyer happens to be a distiller or a miller, they may have little or no interest in such quality attributes. Because each grain has multiple uses, the job of identifying the end-use is extremely difficult if not impossible. Moreover, we cannot predict the condition of the grain subsequent to our inspection.

We in FGIS view our present role as describing the grain as best we can at the time of inspection. In order to effectively and efficiently do this we must operate under certain criteria. These criteria are:

First, we must have a test which can be performed in a reasonable amount of time. When we are inspecting grain being loaded aboard a ship for export, each subplot, representing 20,000-60,000 bushels, must be graded within approximately 15-20 minutes. This is necessary so that the quality is known as the loading occurs. Even less time is available for inspecting inbound truck grain.

The second criterion which must be met is that of simplicity - a test that readily can be performed by official inspection personnel or at the first point of delivery. Obviously, we could not use complicated chemical testing procedures as a means of determining quality attributes in the inspection system today.

3

The third criterion which is essential for a grain inspection test o-
instrument is that it must be repeatable. Results obtained at an FGIS inspection point in Kansas must be in close agreement with the results obtained for the same lot at Houston or some other destination. If the test is not repeatable it will not provide a common language by which the lot can be characterized throughout the grain marketing system.

The final criterion with which we in FGIS must operate is cost. In other words, the test must be relatively inexpensive. If we were to develop a test which could provide all of the information each person in the marketing system would want but cost hundreds of dollars to perform, you can imagine how many tests we would be requested to perform. We are basically a fee-supported agency - the costs of inspection must be passed back to the person(s) who requested the inspection. If we are to effectively provide a service to the public, the costs of such service must be kept reasonable. So, we must have tests which are: timely, uncomplicated, repeatable, and cost-effective. To find all of these attributes in one test or piece of grain inspection equipment is no easy task.

New devices such as the NIR for protein testing are being developed that may enhance our ability to make quality determinations. These devices are relatively simple to operate and a test can be performed in a short period of time, the results are repeatable, and the cost is reasonable.

Since I can be reasonably certain that this audience is interested in wheat, let me bring you up to date on standards changes we recently made. These changes become effective May 1, 1985.

1. The special grade "Light garlicky" will be deleted and the special grade "Garlicky" will be redefined as wheat containing more than 2 green bulblets or an equivalent quantity of dry or partly dry bulblets in 1,000 grams. The work portion will be reduced to 250 grams for counts in excess of 10 green garlic bulblets.
2. The allowable limit for castor beans in the numerical grades will be reduced from 2 to 1.
3. When Hard Red Spring wheat or White Club wheat predominates in Mixed wheat, the test weight requirements for those wheats will apply.
4. An extreme amount of smut will not render wheat Sample grade. The special grades, "Light smutty" and "Smutty", will continue to be shown on official certificates.
5. The components of the subclass Western White wheat will be listed in the order of predominance on the official certificate.
6. The factors wheat of other classes, contracting classes, and subclasses will be analyzed on a work portion of wheat free from dockage and shrunken and broken kernels.

Two items that we proposed, were not adopted. One was the establishment of a "Red wheat" class to accommodate those high yielding varieties that did not conform with our current classing system. The other was a change in how dockage was rounded. We proposed that dockage be rounded up and down to the nearest 0.5%. Comments from the industry, including producers, came down on both sides of the proposal.

The corn, soybean and sorghum standards were amended last year to eliminate the factor of "moisture" as a grade-determining factor. Moisture content for these grains will continue to be shown on the official grade certificate. During our review of the standards, it was concluded that moisture content is a condition of the grain rather than a quality factor. Current trade practice is to discount for moisture on the actual moisture content rather than the numerical grade. It therefore seems logical to eliminate moisture as a grade-determining factor in all grains. Based upon the response to the proposal, this is being accomplished. These grains were the last that still had moisture remaining as a grade-determining factor. Therefore, section (b) of Senate Resolution No. 1601 has in effect been implemented.

During our last formal review of the corn standards, some individuals favored additional revisions; however, there was not the consensus of opinion needed to change the standards. Several items were suggested during that review, including:

1. Separation of broken corn and foreign material (BCFM) into two distinct factors.
2. Inclusion of a breakage test in the standards.

After reviewing the available information at that time, it was concluded that further study was necessary to properly evaluate the separation of BCFM and the use of a breakage test. Presently, all material passing through a 12/64-inch round-hole sieve plus anything other than corn remaining on top is considered as BCFM. The amount of foreign material that remains on top of the 12/64-inch sieve is negligible. Before any change is made in separating broken corn and foreign material into two separate factors, much more dialog is needed. Since our last review of the corn standards, progress has been made on a breakage

test for corn. As we initiate our next review of the corn standards, we will thoroughly evaluate all of the available information. Here again, I would invite you to provide us with justification to support any changes which you would like to see proposed.

If I may, I would like to take a few moments to go over items (a), (b), and (c) of Resolution No. 1601. But first, I would like to commend this committee for taking an interest in grain grades and standards.

Item (a) Establish separate factors for measuring broken grain and foreign material.

While the resolution seems on the surface, rather straightforward, underneath it is very complex and far-reaching, depending upon intent. In the case of wheat, foreign material is a separate factor from shrunken and broken kernels. In the case of corn standards, all material passing through a 12/64-inch round-hole sieve, plus anything other than corn remaining on top of the sieve, is considered as broken corn and foreign material.

Recording the foreign material that remains on top of the sieve would be a simple manner. That handpicked material that is generally pieces of cob, soybeans, or large weedseeds is a very small percent of the current broken corn and foreign material factor. If the intent is to handpick foreign material out of the material that passes through the 12/64th sieve, several problems occur. The material ranges in size from dust to large broken pieces of corn. How do you distinguish between foreign matter and corn dust? Often, small weedseeds (e.g. pigweed) are present. To handpick out such seeds would take far too much time and would cause grading delays and increased inspection costs. Another

question is, would the change cause a reduction of foreign material in corn and will that corn be worth more in the market place? If the intent is for such separation in all grain standards, then we need to dialog the issues.

Item (b) Eliminate moisture as a grade determining factor in all grains, with moisture to be recorded on the certificate.

Effective this fall, the resolution will be accomplished.

Item (c) Include factors that have economic value as related to the end use properties and the products to be made from that grain.

We believe that this resolution has merit but is difficult to attain. For example, using near infrared instrumentation we can measure protein and oil content of soybeans in a sample. However, to identify end-use factors for wheat is most difficult because of the varied end-uses. To name a few-- pasta, bread, cakes, cookies, crackers and sometimes feed. Each of these products has its own distinct needs and requires a battery of laboratory tests that cannot be performed within the time and laboratory constraints in which we must operate.

The Committee's resolution stating the USDA should continue research and education efforts to standardize measurement techniques and grain grades to provide further uniformity among all major exporting and importing countries and should expedite revision of the grain grades is one which we support. We are in the process of awarding and funding research contracts for (1) the quantitative determination of hidden infestation in wheat, (2) objective measurement of foreign odors in grain, (3) separation of foreign and other materials from grain samples, and (4) determination of the impact of toxic weed seeds on the suitability-

8

ity of grain for human and feed use. These contracts are over and above those projects underway by our Agricultural Research Service, e.g., Development of an objective means of classifying hard and soft wheat.

I hope that this brief discussion has provided some insight into the complexity associated with changes in the U.S. Grain Standards. The standards revision process is one in which you can truly play a major role.

Thank you for your attention.

GRADES, GRADE REQUIREMENTS, AND GRADE DESIGNATIONS

§ 810.306 Grades and Grade Requirements

(a) Grades and grade requirements for all classes of wheat, except Mixed wheat. (See also § 810.308.)

(b) Grades and grade requirements for Mixed Wheat. (See also § 810.308.) Mixed Wheat shall be graded according to the U.S. numerical and U.S. Sample grade requirements of the class of wheat which predominates in the mixture, except that the factor "wheat of other classes" shall be disregarded.

§ 810.307 Grade designation

(a) Grade designations for wheat. (See also § 810.308.) The grade designations for wheat shall include in the following order: (1) The letters "U.S."; (2) the number of the grade or the words "Sample grade"; (3) the subclass, or in the case of Hard Red Winter Wheat, Mixed Wheat, Soft Red Winter Wheat, and Unclassed Wheat, the class; (4) each applicable special grade (see also § 810.309); and (5) when applicable, the word "dockage" together with the percentage thereof. In the case of Western White Wheat, there shall be included under "Remarks" on the inspection certificate, the name and percentage of white club wheat and other white wheat in the mixture. In the case of Unclassed Wheat, there shall be included under "Remarks" on the inspection certificate the color or other characteristics which describe the wheat, together with the percentage thereof. In the case of Mixed Wheat, there shall be included under "Remarks" on the inspection certificate the name and percentage of the classes that comprise the mixture.

(b) Optional grade designations. Wheat may be certificated (under certain conditions^{4/}), when supported by official analysis, as U.S. No. 2 or better Wheat, "U.S. No. 3 or better Wheat," etc. The optional grade designations for wheat shall include the name of the applicable class or subclass immediately preceding the word "wheat" in the grade designation. The special grade designations and dockage, when applicable, also shall be included (under certain conditions^{4/}) in the certification.

^{4/} The conditions are listed in the Grain Inspection Handbook. Copies may be obtained from the Federal Grain Inspection Service, U.S. Department of Agriculture, 1400 Independence Avenue, S.W., Washington, DC 20250.

Atch. B
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§ 810.306 Grades and grade requirements

GRADE	Minimum test weight per bushel (pounds)		Percent maximum limits of—							Wheat of other classes ^{3/}	
	Hard Red Spring wheat or White Club wheat	All other classes and sub-classes	Heat damaged kernels	Damaged kernels (total) ^{1/}	Foreign material	Shrunken and broken kernels	Defects (total) ^{2/}	Contrasting classes	Wheat of other classes (total) ^{4/}		
U.S. No. 1	58.0	60.0	0.2	2.0	0.5	3.0	3.0	1.0	3.0		
U.S. No. 2	57.0	58.0	0.2	4.0	1.0	5.0	5.0	2.0	5.0		
U.S. No. 3	55.0	56.0	0.5	7.0	2.0	8.0	8.0	3.0	10.0		
U.S. No. 4	53.0	54.0	1.0	10.0	3.0	12.0	12.0	10.0	10.0		
U.S. No. 5	50.0	51.0	3.0	15.0	5.0	20.0	20.0	10.0	10.0		
U.S. Sample grade	U.S. sample grade shall be wheat which: (1) Does not meet the requirements for the grades U.S. Nos. 1, 2, 3, 4, or 5; or (2) Contains a quantity of smut so great that 1 or more of the grade requirements cannot be determined accurately; or (3) Contains 8 or more stones, 2 or more pieces of glass, 3 or more rotalaria seeds (<i>Crotalaria spp.</i>), 3 or more castor beans (<i>Ricinus communis</i>), 4 or more particles of an unknown foreign substance(s) or a commonly recognized harmful or toxic substance(s), or 2 or more rodent pellets, bird droppings, or an equivalent quantity of other animal filth per 1,000 grams of wheat; or (4) Has a musty, sour, or commercially objectionable foreign odor (except smut or gurgic odor); or (5) Is heating or otherwise of distinctly low quality.										

- ^{1/} Includes heat-damaged kernels.
- ^{2/} Defects (total) include damaged kernels (total), foreign material, and shrunken and broken kernels. The sum of these 3 factors may not exceed the limit for defects.
- ^{3/} Unclassed wheat of any grade may contain not more than 10 percent of wheat of other classes.
- ^{4/} Includes contrasting classes.

Attachment B



Kansas Farm Bureau, Inc.

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STATEMENT OF KANSAS FARM BUREAU
to the
SENATE COMMITTEE ON AGRICULTURE AND SMALL BUSINESS
Senator Jim Allen, Chairman

RE: S.C.R. 1601
Requesting USDA to change Grain Grading Standards

January 20, 1985
Topeka, KS

Presented by
John K. Blythe, Assistant Director
Public Affairs Division
Kansas Farm Bureau

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 Farm Bureau as you consider S.C.R. 1601.

The Kansas Farm Bureau has had an interest in the issue that you are addressing in S.C.R. 1601 for a number of years and we want this Committee to know that we strongly support the Senate Concurrent Resolution.

Members of this Committee, I believe, are familiar with our policy process in Kansas Farm Bureau. We develop policy positions on Kansas issues and adopt recommendations for our voting delegates to the American Farm Bureau Federation annual meeting.

1/30/85 attachment C

**KANSAS FARM BUREAU
Recommendations on
NATIONAL ISSUES**

These RECOMMENDATIONS on National Issues were made by voting delegates to the Annual Meeting of Kansas Farm Bureau—Dec. 4, 1984—and are for the instruction of KFB voting delegates to the Annual Meeting of the American Farm Bureau Federation.

Grain Standards, Grading, Inspection and Pricing

We strongly support development of new, more realistic grain standards to replace the present United States Grain Standards Act. New grain standards should require precleaning and identity preservation by class of grain sold into export channels.

The objective of developing new grain standards must be to enhance sales and improve returns to producers.. New standards must insure that class and grade will accurately indicate the appropriate end use for each lot of grain. New standards should be developed soon and should be strictly enforced.

We believe the American Farm Bureau, USDA, and the grain trade should work cooperatively to develop new grain standards which accurately reflect the importance of test weight, protein content, insect infestation levels, moisture, dry matter basis, and foreign material in determining quality, grading, and pricing factors for soybeans, wheat, and feed grains.

Foreign material, including dockage, should be defined in new grain standards as material other than the grain being marketed. The practice of adding foreign material and/or wheat of other classes to grain to meet a certain grade, should be prohibited. Criminal penalties for violations should be swiftly and surely administered.

The Federal Grain Inspection Service should inspect and check cargo weights of all export shipments. FGIS should also verify the cleanliness, quality and test weight of every export grain shipment.

The American Farm Bureau for a number of years has had a policy position that our grain standards should be changed and inspection should be more thorough and enforced. Following is the policy position of the AFBF adopted at their annual meeting, January 10, 1985.

Grain standards, inspection and pricing

We encourage those engaged in the marketing of agricultural products to seek out and develop markets which will recognize quality differences and adequately reflect these differences in the prices paid to farmers.

We encourage the grain industry to study alternative methods of handling and transporting grain to maintain quality. We believe that grain producers should be directly represented on the Federal Grain Inspection Advisory Committee.

Any changes that may be made in the grain standards should more accurately reflect the quality of grain and insure that this quality is reflected in the pricing of grain. We will maintain close liaison with USDA in an effort to insure that proposed grade changes are in the best interest of producers.

We recommend that the integrity of the present classification of wheat be preserved so that it applies to all classes of wheat rather than just "hard red winter." We further recommend the development of sub-classes of other red wheats with differentiation based on physical and biological characteristics, protein content, milling and baking qualities and other end-use factors.

We propose that USDA.

(1) Use objective tests which identify differences in hardness and protein quality;

(2) Accelerate research to develop more objective tests for hardness and quality; and

(3) Conduct a comprehensive study to identify the changes in grading procedures and standards needed to insure that class and grade will accurately indicate the appropriate end use for each lot of grain.

Foreign matter should be defined as material other than the grain being marketed and anything in excess of one percent should be listed as dockage.

We encourage USDA and private agencies to study the relative importance of test weight, protein content, moisture, breakability and foreign material as quality and pricing factors and to develop more accurate equipment and procedures for testing moisture, protein content and other factors affecting the end use value of grain.

We favor the use of a dry matter basis for grading and pricing of soybeans and grain. If dry matter basis is not used, we oppose any changes by USDA to lower the standards for the moisture level of dry corn below 15.5 percent.

The practice of adding foreign material to grain to meet a certain grade should be eliminated.

We support strict enforcement of the U.S. Grain Standards Act and strict criminal penalties for violations of this Act.

We urge the Federal Grain Inspection Service to spot check, or in other ways verify, the quality and weights of export grain shipments if personnel and funds are not available to inspect and check weights of all export shipments.

We support the development and implementation of an accurate method of testing the vigor and germination of all seed sold in interstate commerce.

Thank you Mr. Chairman and members of the committee for this opportunity to express the recommendations and concerns of the Kansas Farm Bureau.