

## Introduction

The *1996 U.S. Grain Exports: Quality Report* is produced by the Federal Grain Inspection Service (FGIS) of the U.S. Department of Agriculture's Grain Inspection, Packers and Stockyards Administration. The report is the result of FGIS' efforts to determine, document, and disseminate critical information regarding U.S. export grain quality.

The 1996 report is the thirteenth edition of this annual summary of export grain quality. The report summarizes the quality of export wheat, corn, soybeans, sorghum, barley, sunflower seeds, and oats. Mixed grain, flaxseed, and rye are not included in this year's report; no lots have been reported in the past 3 years.

### Organization of the Report

The report contains chapters addressing export wheat, export corn, export soybeans, and other grains. Each chapter contains:

- \* standards and definitions for each grain, and
- \* tables that clearly illustrate all factor result averages at each applicable U.S. grade level.

### Methodology

FGIS collects and documents information about export grain shipments in the automated Export Grain Information System (EGIS). This system contains one record for each export lot inspected and/or weighed. In the case of some railcar exports, each record may contain information from several lots which were aggregated to simplify internal reporting. For the purposes of this export quality report, only information from waterborne export shipments were used. Waterborne export shipments represented 96.4% of the total export lots in the EGIS database for 1996.

Generally, each EGIS record contains the quantity of the lot and the average factor results certified for the lot. The tables in this report contain descriptive statistics which summarize these lot quantities and the weighted averages. Where appropriate, tables are provided which show the number of lots and the quantity of grain which was used to generate the descriptive statistics. Many of the tables summarize factor averages by grade.

A U.S. grade is determined by analyzing the physical and biological factors present in the sample. Limits for the grading factors are established for each numerical grade. Grades range from U.S. No. 1 (highest) to U.S. Sample grade (lowest). When a particular grade is cited in this report, it includes lots certified at that grade plus lots certified with the "or better" designation. For example, U.S. No. 2 grade includes lots which were certificated as "U.S. No. 2" and lots certificated as "U.S. No. 2 or better." Factors that exceed the established limits, except for test weight, lower the grade. The established limits for test weight represent minimum requirements for each grade.

This report does not contain data on the volume of export grain in bushels. Listed below are the equations for converting the approximate quantity of grain from metric tons to bushels.

#### Conversion Equation

$$\text{Bushels} = \frac{\text{Metric Tons} \times 2204.623 \text{ Pounds}}{\text{Legal Test Weight/Bushel of Grain}}$$

#### Legal Test Weight Per Bushel for Specific Grains

<b>Wheat</b> =	60 pounds/bushel
<b>Corn</b> =	56 pounds/bushel
<b>Soybeans</b> =	60 pounds/bushel
<b>Sorghum</b> =	56 pounds/bushel
<b>Barley</b> =	48 pounds/bushel
<b>Sunflower Seed</b> =	28 pounds/bushel
<b>Rye</b> =	56 pounds/bushel
<b>Oats</b> =	32 pounds/bushel



## Export Wheat

### Wheat Grades and Grade Requirements

Wheat is divided into eight classes: Hard Red Spring wheat, Hard Red Winter wheat, Soft Red Winter wheat, Durum wheat, Hard White wheat, Soft White wheat, Unclassed wheat, and Mixed wheat. The classes Hard Red Spring wheat, Soft White wheat, and Durum wheat are further divided into subclasses. There are no subclasses in the classes Hard Red Winter wheat, Soft Red Winter wheat, Hard

White wheat, Unclassed wheat, and Mixed wheat. Each class and subclass is divided into five U.S. numerical grades and U.S. Sample grade. Special grades are provided to emphasize special qualities or conditions affecting the value of wheat. Special grades are added to and made a part of the grade designation. They do not affect the numerical or Sample grade designation.

### U.S. Standards for Wheat

Grade	Minimum limits of --		Maximum limits of --						
	Test weight per bushel		Damaged kernels		Foreign Material	Shrunken and broken kernels	Defects <sup>3</sup> (total)	Wheat of other classes <sup>4</sup>	
	Hard Red Spring wheat or White Club wheat <sup>1</sup> (pounds)	All other classes and subclasses (pounds)	Heat-damaged kernels (percent)	Total <sup>2</sup> (percent)				Contrasting classes (percent)	Total <sup>5</sup> (percent)
U.S.No. 1	58.0	60.0	0.2	2.0	0.4	3.0	3.0	1.0	3.0
U.S.No. 2	57.0	58.0	0.2	4.0	0.7	5.0	5.0	2.0	5.0
U.S.No. 3	55.0	56.0	0.5	7.0	1.3	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 is wheat that:

- Does not meet the requirements for the grades U.S. Nos. 1, 2, 3, 4, or 5; or
- Contains 32 or more insect-damaged kernels per 100 grams of wheat, or
- Contains 4 or more stones or any number of stones which have an aggregate weight in excess of 0.1 percent of the sample weight, 1 or more pieces of glass, 3 or more crotalaria seeds (*Crotalaria* spp.), 2 or more castor beans (*Ricinus communis* L.), 4 or more particles of an unknown foreign substance(s) or a commonly recognized harmful or toxic substance(s), 2 or more rodent pellets, bird dropping, or an equivalent quantity of other animal filth, five or more pieces of animal filth, castor beans, crotalaria seeds, glass, stones, or unknown foreign substances, in combination, per 1,000 grams of wheat; or
- Has a musty, sour, or commercially objectionable foreign odor (except smut or garlic odor); or
- Is heating or otherwise of distinctly low quality.

<sup>1</sup>These requirements also apply when Hard Red Spring or White Club wheat predominates in a sample of Mixed wheat.

<sup>2</sup> Includes heat-damaged kernels.

<sup>3</sup>Defects include damaged kernels (total), foreign material, and shrunken and broken kernels. The sum of these three factors may not exceed the limit for defects for each numerical grade.

<sup>4</sup>Unclassed wheat of any grade may contain not more than 10.0 percent of wheat of other classes.

<sup>5</sup>Includes contrasting classes.

## Wheat

### Definitions

**Test weight (lb/bu)** is pounds of grain per Winchester bushel.

**Test weight (kg/hl)** is the metric system equivalent to pounds per bushel. Kilograms per hectoliter are calculated by multiplying pounds per bushel by 1.287.

**Heat-damaged kernels** are kernels, pieces of wheat kernels, and other grains which have been materially discolored and damaged by heat.

**Damaged kernels (total)** are kernels, pieces of wheat kernels, and other grains that are badly ground-damaged, badly weather-damaged, diseased, frost-damaged, heat-damaged, insect bored, mold-damaged, sprout-damaged, or otherwise materially damaged.

**Foreign material** is all matter other than wheat which remains in a sample after removal of dockage and shrunken and broken kernels.

**Shrunken and broken kernels** are kernels, kernel pieces, and other matter that pass through a 0.064-by 3/8-inch oblong-hole sieve.

**Total defects** are the sum of three factors: damaged kernels (total), shrunken and broken kernels, and foreign material. In the factor summary tables, the average values listed for total defects may not equal the sum of the component factor averages due to rounding.

**Dockage** includes chaff, dust, and items removed from a sample by an initial screening with a dockage tester. The percentage of dockage in a sample does not affect the numerical grade.

**Moisture** is the water content of grain as determined by an approved electronic moisture meter. The percentage of moisture in a sample does not affect the numerical grade.

**Contrasting classes** include:

- \* Durum, Hard White, Soft White, and Unclassed wheats in the classes Hard Red Spring and Hard Red Winter wheats.
- \* Hard Red Spring, Hard Red Winter, Hard White, Soft Red Winter, Soft White, and Unclassed wheats in the class Durum wheat.
- \* Durum and Unclassed wheats in the class Soft Red Winter wheat.
- \* Durum, Hard Red Spring, Hard Red Winter, Soft Red Winter and Unclassed wheats in the classes Hard White wheat and Soft White wheat.

**Wheat of other classes** is any class that is mixed with the predominant class.

**Protein** is the protein content of grain as determined by an approved near infrared spectroscopy (NIRS) instrument calibrated against a Kjeldahl method (percent nitrogen multiplied by 5.7). The percentage of protein in a sample does not affect the numerical grade. Protein is certified on a 12 percent moisture basis.

**Mixed wheat** is a combination of classes of wheat which does not meet the minimum requirements of a specific class.

**Table 1. U.S. Wheat Exports: Number of lots and quantity exported by class and grade, 1994-96**

Class	Grade	1994		1995		1996	
		Number of Lots	Metric Tons	Number of Lots	Metric Tons	Number of Lots	Metric Tons
<b>Hard Red Winter Wheat</b>	<b>U.S. No. 1</b>	101	761,080	87	616,208	92	685,596
	<b>U.S. No. 2</b>	497	10,150,689	482	9,515,305	435	8,814,877
	<b>U.S. No. 3</b>	1	19,999	3	21,971	4	64,651
	<b>U.S. No. 4</b>	1	889	--	--	--	--
	<b>U.S. Sample Grade</b>	--	--	--	--	1	7,211
	<b>All lots</b>	600	10,932,657	572	10,153,484	532	9,572,335
<b>Hard Red Spring Wheat</b>	<b>U.S. No. 1</b>	115	897,852	95	830,204	126	1,178,655
	<b>U.S. No. 2</b>	574	6,320,031	650	7,765,336	626	7,398,964
	<b>U.S. No. 3</b>	10	44,358	7	47,064	11	53,863
	<b>U.S. No. 4</b>	2	3,488	2	12,802	1	810
	<b>U.S. Sample Grade</b>	--	--	5	32,922	4	28,110
	<b>All lots</b>	701	7,265,729	759	8,688,328	768	8,660,402
<b>Soft Red Winter Wheat</b>	<b>U.S. No. 2</b>	231	4,625,660	328	7,195,784	315	5,430,368
	<b>U.S. No. 3</b>	--	--	2	12,747	13	79,557
	<b>U.S. No. 4</b>	--	--	1	330	--	--
	<b>All lots</b>	231	4,625,660	331	7,208,861	328	5,509,925
<b>Durum Wheat</b>	<b>U.S. No. 1</b>	7	43,940	18	138,718	15	138,642
	<b>U.S. No. 2</b>	58	511,210	50	359,392	58	362,926
	<b>U.S. No. 3</b>	36	517,272	44	495,376	29	365,674
	<b>U.S. No. 4</b>	1	3,675	--	--	1	1,196
	<b>U.S. Sample Grade</b>	1	1,101	--	--	--	--
	<b>All lots</b>	103	1,077,198	112	993,486	103	868,438
<b>Soft White Wheat</b>	<b>U.S. No. 1</b>	127	723,905	142	787,935	141	694,503
	<b>U.S. No. 2</b>	329	6,501,441	289	5,462,374	292	5,684,142
	<b>U.S. No. 5</b>	--	--	--	--	3	48,000
	<b>All lots</b>	456	7,225,346	431	6,250,309	436	6,426,645
<b>Hard White Wheat</b>	<b>U.S. No. 1</b>	--	--	1	818	--	--
	<b>All lots</b>	--	--	1	818	--	--

continued

**Table 1. U.S. Wheat Exports: Number of lots and quantity exported by class and grade, 1994-96--Continued**

Class	Grade	1994		1995		1996	
		Number of Lots	Metric Tons	Number of Lots	Metric Tons	Number of Lots	Metric Tons
Mixed Wheat	U.S. No. 2	--	--	--	--	2	45,502
	U.S. No. 3	--	--	--	--	1	27,400
	U.S. No. 4	--	--	1	4,914	--	--
	U.S. Sample Grade	--	--	--	--	4	122,170
	All lots	--	--	1	4,914	7	195,072
All Classes	U.S. No. 1	350	2,426,777	343	2,373,883	374	2,697,396
	U.S. No. 2	1,689	28,109,031	1,799	30,298,191	1,728	27,736,779
	U.S. No. 3	47	581,629	56	577,158	58	591,145
	U.S. No. 4	4	8,052	4	18,046	2	2,006
	U.S. No. 5	--	--	--	--	3	48,000
	U.S. Sample Grade	1	1,101	5	32,922	9	157,491
	All lots	2,091	31,126,590	2,207	33,300,200	2,174	31,232,817

-- = No lots reported in this category.

**Table 2. Summary of export Hard Red Winter wheat quality, 1994-96**

Factor	Grade	Grade Limit	1994				1995				1996				
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	
<b>Test Weight (lb/bu)</b>	U.S.No. 1	60.0	101	61.4	60.1	64.0	87	62.3	60.5	64.2	92	62.4	60.5	64.5	
	U.S.No. 2	58.4	497	60.6	58.2	65.1	482	60.7	58.5	64.7	435	60.6	58.4	64.6	
	U.S.No. 3	56.0	1	62.0	62.0	62.0	3	59.8	59.4	60.1	4	60.4	58.3	60.7	
	U.S.No. 4	54.0	1	59.5	59.5	59.5	--	--	--	--	--	--	--	--	
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	--	1	60.3	60.3	60.3
	All lots	N/A	600	60.7	58.2	65.1	572	60.8	58.5	64.7	532	60.8	58.3	64.6	
<b>Test Weight (kg/hl)</b>	U.S.No. 1	N/A	101	79.1	77.4	82.4	87	80.1	77.8	82.7	92	80.3	77.9	83.0	
	U.S.No. 2	N/A	497	78.0	74.9	83.8	482	78.1	75.3	83.3	435	78.1	75.2	83.2	
	U.S.No. 3	N/A	1	79.9	79.9	79.9	3	77.0	76.5	77.4	4	77.7	75.1	78.2	
	U.S.No. 4	N/A	1	76.6	76.6	76.6	--	--	--	--	--	--	--	--	
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	--	1	77.6	77.6	77.6
	All lots	N/A	600	78.1	74.9	83.8	572	78.3	75.3	83.3	532	78.2	75.1	83.2	
<b>Moisture</b>	U.S.No. 1	N/A	101	11.6	10.0	13.2	87	10.6	9.4	12.0	92	10.7	7.4	12.6	
	U.S.No. 2	N/A	497	11.9	8.5	13.0	482	11.3	9.0	13.1	435	11.5	8.4	13.2	
	U.S.No. 3	N/A	1	11.8	11.8	11.8	3	11.5	11.3	12.7	4	11.4	11.3	12.6	
	U.S.No. 4	N/A	1	12.4	12.4	12.4	--	--	--	--	--	--	--	--	
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	--	1	12.3	12.3	12.3
	All lots	N/A	600	11.9	8.5	13.2	572	11.2	9.0	13.1	532	11.5	7.4	13.2	
<b>Heat-damaged Kernels</b>	U.S.No. 1	0.2	101	0.0	0.0	0.1	87	0.0	0.0	0.0	92	0.0	0.0	0.1	
	U.S.No. 2	0.2	497	0.0	0.0	0.1	482	0.0	0.0	0.1	435	0.0	0.0	0.1	
	U.S.No. 3	0.5	1	0.0	0.0	0.0	3	0.0	0.0	0.0	4	0.0	0.0	0.2	
	U.S.No. 4	1.0	1	0.0	0.0	0.0	--	--	--	--	--	--	--	--	
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	--	1	0.5	0.5	0.5
	All lots	N/A	600	0.0	0.0	0.1	572	0.0	0.0	0.1	532	0.0	0.0	0.5	
<b>Damaged Kernels (Total)</b>	U.S.No. 1	2.0	101	0.4	0.0	1.4	87	0.3	0.0	0.9	92	0.3	0.0	1.0	
	U.S.No. 2	4.0	497	1.3	0.0	2.8	482	1.2	0.0	2.4	435	1.3	0.0	2.7	
	U.S.No. 3	7.0	1	0.9	0.9	0.9	3	1.9	0.6	2.2	4	1.5	1.3	3.1	
	U.S.No. 4	10.0	1	6.4	6.4	6.4	--	--	--	--	--	--	--	--	
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	--	1	39.5	39.5	39.5
	All lots	N/A	600	1.2	0.0	6.4	572	1.1	0.0	2.4	532	1.3	0.0	39.5	
<b>Foreign Material</b>	U.S.No. 1	0.4	101	0.2	0.0	0.4	87	0.2	0.1	0.4	92	0.2	0.1	0.4	
	U.S.No. 2	0.7	497	0.3	0.0	0.7	482	0.3	0.1	0.6	435	0.3	0.1	0.6	
	U.S.No. 3	1.3	1	0.5	0.5	0.5	3	0.4	0.3	0.5	4	0.3	0.3	0.4	
	U.S.No. 4	3.0	1	0.4	0.4	0.4	--	--	--	--	--	--	--	--	
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	--	1	0.3	0.3	0.3
	All lots	N/A	600	0.3	0.0	0.7	572	0.3	0.1	0.6	532	0.3	0.1	0.6	

continued

**Table 2. Summary of export Hard Red Winter wheat quality, 1994-96--Continued**

Factor	Grade	1994					1995					1996			
		Grade Limit	No. of Lots	No. of			No. of Lots	No. of			No. of Lots	No. of			
				Avg.	Low	High		Avg.	Low	High		Avg.	Low	High	
<b>Shrunken and Broken</b>	<b>U.S.No. 1</b>	3.0	101	1.3	0.7	2.4	87	1.7	1.1	2.4	92	1.7	0.4	2.6	
	<b>U.S.No. 2</b>	5.0	497	2.0	0.6	3.7	482	2.5	0.4	3.8	435	2.3	0.7	3.8	
	<b>U.S.No. 3</b>	8.0	1	1.2	1.2	1.2	3	2.6	2.5	2.6	4	2.9	2.8	3.2	
	<b>U.S.No. 4</b>	12.0	1	2.7	2.7	2.7	--	--	--	--	--	--	--	--	
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	--	--	--	--	1	2.4	2.4	2.4	
	<b>All lots</b>	N/A	600	2.0	0.6	3.7	572	2.4	0.4	3.8	532	2.2	0.4	3.8	
<b>Total Defects<sup>1</sup></b>	<b>U.S.No. 1</b>	3.0	101	1.9	0.9	3.0	87	2.1	1.2	2.9	92	2.2	0.6	2.9	
	<b>U.S.No. 2</b>	5.0	497	3.6	0.9	4.9	482	3.9	0.5	5.0	435	3.9	0.9	5.0	
	<b>U.S.No. 3</b>	8.0	1	2.6	2.6	2.6	3	4.9	3.6	5.1	4	4.7	4.4	6.4	
	<b>U.S.No. 4</b>	12.0	1	9.5	9.5	9.5	--	--	--	--	--	--	--	--	
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	--	--	--	--	1	42.2	42.2	42.2	
	<b>All lots</b>	N/A	600	3.5	0.9	9.5	572	3.8	0.5	5.1	532	3.8	0.6	42.2	
<b>Dockage</b>	<b>U.S.No. 1</b>	N/A	101	0.5	0.2	0.8	87	0.5	0.3	0.7	92	0.5	0.3	0.9	
	<b>U.S.No. 2</b>	N/A	497	0.7	0.3	1.3	482	0.8	0.4	1.6	435	0.8	0.3	2.5	
	<b>U.S.No. 3</b>	N/A	1	0.6	0.6	0.6	3	0.9	0.5	1.0	4	0.9	0.6	1.3	
	<b>U.S.No. 4</b>	N/A	1	1.0	1.0	1.0	--	--	--	--	--	--	--	--	
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	--	--	--	--	1	0.9	0.9	0.9	
	<b>All lots</b>	N/A	600	0.7	0.2	1.3	572	0.7	0.3	1.6	532	0.8	0.3	2.5	
<b>Wheat of Other Classes</b>	<b>U.S.No. 1</b>	3.0	101	0.7	0.0	2.3	87	1.1	0.0	2.9	92	1.1	0.0	2.5	
	<b>U.S.No. 2</b>	5.0	497	2.1	0.0	5.0	482	1.5	0.0	4.8	435	1.7	0.0	4.9	
	<b>U.S.No. 3</b>	10.0	1	1.4	1.4	1.4	3	3.1	0.2	9.8	4	1.0	0.4	1.5	
	<b>U.S.No. 4</b>	10.0	1	1.0	1.0	1.0	--	--	--	--	--	--	--	--	
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	--	--	--	--	1	2.4	2.4	2.4	
	<b>All lots</b>	N/A	600	2.0	0.0	5.0	572	1.5	0.0	9.8	532	1.7	0.0	4.9	
<b>Contrasting Classes</b>	<b>U.S.No. 1</b>	1.0	101	0.2	0.0	0.8	87	0.3	0.0	1.0	92	0.3	0.0	0.9	
	<b>U.S.No. 2</b>	2.0	497	0.1	0.0	1.9	482	0.1	0.0	1.6	435	0.1	0.0	1.5	
	<b>U.S.No. 3</b>	3.0	1	0.3	0.3	0.3	3	0.0	0.0	0.0	4	0.0	0.0	0.0	
	<b>U.S.No. 4</b>	10.0	1	0.0	0.0	0.0	--	--	--	--	--	--	--	--	
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	--	--	--	--	1	0.0	0.0	0.0	
	<b>All lots</b>	N/A	600	0.1	0.0	1.9	572	0.1	0.0	1.6	532	0.1	0.0	1.5	

<sup>1</sup> The sum of the component factor averages may not equal the average for this factor due to rounding.

continued



**Table 2. Summary of export Hard Red Winter wheat quality, 1994-96--Continued**

Factor	Grade	Grade Limit	1994			1995			1996					
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Protein (as is basis)</b>	<b>U.S. No. 1</b>	N/A	101	12.0	11.4	13.4	86	12.2	11.6	13.9	91	12.3	11.5	13.6
	<b>U.S. No. 2</b>	N/A	359	12.0	10.0	13.9	423	12.4	10.5	14.8	383	12.5	10.3	14.8
	<b>U.S. No. 3</b>	N/A	1	11.8	11.8	11.8	3	12.2	11.9	12.7	2	12.5	12.5	12.6
	<b>U.S. No. 4</b>	N/A	1	12.1	12.1	12.1	--	--	--	--	--	--	--	--
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	--	--	--	--	1	13.1	13.1	13.1
	<b>All lots</b>	N/A	462	12.0	10.0	13.9	512	12.4	10.5	14.8	477	12.5	10.3	14.8
<b>Protein (12% moisture)</b>	<b>U.S. No. 1</b>	N/A	101	12.0	11.5	13.5	86	12.0	11.5	13.6	91	12.1	11.5	13.4
	<b>U.S. No. 2</b>	N/A	359	12.0	10.0	13.9	423	12.3	10.4	14.7	383	12.5	10.2	14.8
	<b>U.S. No. 3</b>	N/A	1	11.8	11.8	11.8	3	12.1	11.8	12.6	2	12.5	12.4	12.6
	<b>U.S. No. 4</b>	N/A	1	12.2	12.2	12.2	--	--	--	--	--	--	--	--
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	--	--	--	--	1	13.1	13.1	13.1
	<b>All lots</b>	N/A	462	12.0	10.0	13.9	512	12.3	10.4	14.7	477	12.5	10.2	14.8

N/A = Does not apply.  
 -- = No lots reported in this category.

**Table 3. Summary of export Hard Red Spring wheat quality, 1994-96**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Test Weight (lb/bu)</b>	U.S.No. 1	58.0	115	60.9	59.2	63.3	95	61.4	59.6	63.2	126	61.6	59.4	63.0
	U.S.No. 2	57.0	574	59.8	57.4	62.8	650	60.4	58.1	66.1	626	60.7	58.0	63.4
	U.S.No. 3	55.0	10	58.4	56.5	61.5	7	59.5	58.3	61.3	11	59.5	58.2	60.6
	U.S.No. 4	53.0	2	59.9	59.8	62.0	2	60.1	57.0	60.3	1	57.6	57.6	57.6
	U.S. Sample Grade	N/A	--	--	--	--	5	54.2	53.0	54.9	4	54.3	53.1	55.4
	All lots	N/A	701	59.9	56.5	63.3	759	60.5	53.0	66.1	768	60.8	53.1	63.4
<b>Test Weight (kg/hl)</b>	U.S.No. 1	N/A	115	78.4	76.2	81.5	95	79.1	76.7	81.4	126	79.3	76.4	81.1
	U.S.No. 2	N/A	574	77.0	73.9	80.8	650	77.8	74.8	85.1	626	78.2	74.7	81.7
	U.S.No. 3	N/A	10	75.2	72.8	79.2	7	76.6	75.1	78.9	11	76.7	74.9	78.0
	U.S.No. 4	N/A	2	77.1	77.0	79.8	2	77.4	73.4	77.6	1	74.2	74.2	74.2
	U.S. Sample Grade	N/A	--	--	--	--	5	69.7	68.2	70.7	4	69.9	68.4	71.3
	All lots	N/A	701	77.2	72.8	81.5	759	77.9	68.2	85.1	768	78.3	68.4	81.7
<b>Moisture</b>	U.S.No. 1	N/A	115	12.2	8.1	13.6	95	11.3	10.1	13.0	126	11.8	10.0	13.3
	U.S.No. 2	N/A	574	12.8	10.5	13.9	650	12.3	10.2	13.5	626	12.4	9.8	13.5
	U.S.No. 3	N/A	10	13.0	10.2	13.6	7	13.0	12.6	13.3	11	13.0	12.8	13.5
	U.S.No. 4	N/A	2	13.4	11.3	13.5	2	12.4	12.4	12.7	1	13.5	13.5	13.5
	U.S. Sample Grade	N/A	--	--	--	--	5	13.6	13.3	13.9	4	13.4	13.3	13.5
	All lots	N/A	701	12.7	8.1	13.9	759	12.2	10.1	13.9	768	12.3	9.8	13.5
<b>Heat-damaged Kernels</b>	U.S.No. 1	0.2	115	0.0	0.0	0.0	95	0.0	0.0	0.0	126	0.0	0.0	0.0
	U.S.No. 2	0.2	574	0.0	0.0	0.1	650	0.0	0.0	0.1	626	0.0	0.0	0.1
	U.S.No. 3	0.5	10	0.0	0.0	0.0	7	0.0	0.0	0.1	11	0.0	0.0	0.0
	U.S.No. 4	1.0	2	0.0	0.0	0.0	2	0.0	0.0	0.0	1	0.1	0.1	0.1
	U.S. Sample Grade	N/A	--	--	--	--	5	0.0	0.0	0.0	4	0.1	0.0	0.2
	All lots	N/A	701	0.0	0.0	0.1	759	0.0	0.0	0.1	768	0.0	0.0	0.2
<b>Damaged Kernels (Total)</b>	U.S.No. 1	2.0	115	0.8	0.0	1.6	95	0.5	0.0	1.6	126	0.8	0.0	1.5
	U.S.No. 2	4.0	574	2.1	0.1	3.6	650	2.1	0.1	3.5	626	2.0	0.0	3.6
	U.S.No. 3	7.0	10	3.7	2.8	5.1	7	3.2	1.4	4.1	11	3.8	2.4	5.3
	U.S.No. 4	10.0	2	2.2	0.5	2.3	2	2.3	2.1	5.8	1	6.4	6.4	6.4
	U.S. Sample Grade	N/A	--	--	--	--	5	15.2	8.4	19.4	4	16.8	12.1	19.7
	All lots	N/A	701	2.0	0.0	5.1	759	2.0	0.0	19.4	768	1.9	0.0	19.7
<b>Foreign Material</b>	U.S.No. 1	0.4	115	0.3	0.1	0.4	95	0.3	0.1	0.4	126	0.2	0.1	0.4
	U.S.No. 2	0.7	574	0.4	0.1	0.7	650	0.4	0.1	0.7	626	0.3	0.1	0.7
	U.S.No. 3	1.3	10	0.5	0.2	0.8	7	0.6	0.3	1.2	11	0.3	0.2	0.5
	U.S.No. 4	3.0	2	0.9	0.4	0.9	2	0.1	0.1	0.3	1	0.6	0.6	0.6
	U.S. Sample Grade	N/A	--	--	--	--	5	1.4	1.3	1.6	4	1.4	1.0	2.0
	All lots	N/A	701	0.4	0.1	0.9	759	0.4	0.1	1.6	768	0.3	0.1	2.0

continued

**Table 3. Summary of export Hard Red Spring wheat quality, 1994-96--Continued**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Shrunken and Broken</b>	<b>U.S.No. 1</b>	3.0	115	1.3	0.2	2.3	95	1.8	0.9	2.5	126	1.6	0.7	2.4
	<b>U.S.No. 2</b>	5.0	574	1.5	0.7	2.2	650	1.6	0.1	2.4	626	1.6	0.8	2.3
	<b>U.S.No. 3</b>	8.0	10	1.4	1.2	2.1	7	1.9	1.0	2.6	11	1.6	1.4	1.9
	<b>U.S.No. 4</b>	12.0	2	1.4	1.4	2.0	2	1.7	1.7	2.2	1	1.7	1.7	1.7
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	5	4.0	3.0	4.9	4	4.9	3.8	5.8
	<b>All lots</b>	N/A	701	1.5	0.2	2.3	759	1.7	0.1	4.9	768	1.6	0.7	5.8
<b>Total Defects<sup>1</sup></b>	<b>U.S.No. 1</b>	3.0	115	2.4	0.5	3.0	95	2.6	1.4	3.0	126	2.5	1.7	3.0
	<b>U.S.No. 2</b>	5.0	574	4.0	1.7	5.0	650	4.2	1.4	5.0	626	3.8	1.5	5.0
	<b>U.S.No. 3</b>	8.0	10	5.6	4.9	6.8	7	5.8	4.0	7.2	11	5.7	4.4	7.2
	<b>U.S.No. 4</b>	12.0	2	4.5	2.9	4.6	2	4.1	3.9	8.3	1	8.7	8.7	8.7
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	5	20.6	12.7	25.6	4	23.2	18.9	26.5
	<b>All lots</b>	N/A	701	3.8	0.5	6.8	759	4.1	1.4	25.6	768	3.7	1.5	26.5
<b>Dockage</b>	<b>U.S.No. 1</b>	N/A	115	0.6	0.0	1.1	95	0.6	0.3	0.9	126	0.6	0.3	0.8
	<b>U.S.No. 2</b>	N/A	574	0.8	0.2	1.7	650	0.7	0.0	1.7	626	0.7	0.2	1.5
	<b>U.S.No. 3</b>	N/A	10	1.1	0.7	1.3	7	1.0	0.6	1.5	11	0.8	0.7	1.4
	<b>U.S.No. 4</b>	N/A	2	0.9	0.9	1.6	2	0.8	0.8	1.8	1	1.5	1.5	1.5
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	5	2.0	1.4	2.2	4	1.8	1.5	2.0
	<b>All lots</b>	N/A	701	0.8	0.0	1.7	759	0.7	0.0	2.2	768	0.7	0.2	2.0
<b>Wheat of Other Classes</b>	<b>U.S.No. 1</b>	3.0	115	0.8	0.0	2.6	95	0.8	0.0	2.4	126	0.5	0.0	2.1
	<b>U.S.No. 2</b>	5.0	574	1.2	0.0	5.0	650	1.4	0.0	5.0	626	1.2	0.0	4.8
	<b>U.S.No. 3</b>	10.0	10	1.9	0.0	5.6	7	2.3	0.0	6.8	11	0.8	0.0	3.1
	<b>U.S.No. 4</b>	10.0	2	0.0	0.0	0.3	2	1.3	0.9	1.3	1	0.0	0.0	0.0
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	5	2.8	0.5	6.0	4	4.5	1.7	6.3
	<b>All lots</b>	N/A	701	1.1	0.0	5.6	759	1.3	0.0	6.8	768	1.1	0.0	6.3
<b>Contrasting Classes</b>	<b>U.S.No. 1</b>	1.0	115	0.3	0.0	1.0	95	0.2	0.0	0.7	126	0.3	0.0	1.0
	<b>U.S.No. 2</b>	2.0	574	0.3	0.0	1.6	650	0.3	0.0	1.9	626	0.4	0.0	1.8
	<b>U.S.No. 3</b>	3.0	10	0.1	0.0	0.7	7	0.2	0.0	0.8	11	0.0	0.0	0.1
	<b>U.S.No. 4</b>	10.0	2	0.0	0.0	0.3	2	0.0	0.0	0.0	1	0.0	0.0	0.0
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	5	0.7	0.0	1.7	4	1.1	0.0	4.9
	<b>All lots</b>	N/A	701	0.3	0.0	1.6	759	0.3	0.0	1.9	768	0.4	0.0	4.9

continued

**Table 3. Summary of export Hard Red Spring wheat quality, 1994-96--Continued**

Factor	Grade	Grade Limit	1994			1995			1996					
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Protein (as is basis)</b>	<b>U.S. No. 1</b>	N/A	115	13.9	13.0	14.9	93	14.2	13.9	15.0	126	14.3	13.5	15.2
	<b>U.S. No. 2</b>	N/A	555	13.6	11.1	15.6	636	13.6	11.1	15.2	602	13.7	10.0	15.3
	<b>U.S. No. 3</b>	N/A	10	13.2	11.3	14.0	6	13.9	13.3	14.4	11	14.0	13.4	14.6
	<b>U.S. No. 4</b>	N/A	2	13.8	13.5	13.8	1	13.6	13.6	13.6	1	14.3	14.3	14.3
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	4	13.9	13.4	14.3	4	13.9	13.1	14.5
	<b>All lots</b>	N/A	682	13.6	11.1	15.6	740	13.7	11.1	15.2	744	13.8	10.0	15.3
<b>Protein (12% moisture)</b>	<b>U.S. No. 1</b>	N/A	115	13.9	13.1	15.1	93	14.1	13.9	15.1	126	14.2	13.6	15.3
	<b>U.S. No. 2</b>	N/A	555	13.7	11.1	15.6	636	13.7	11.1	15.5	602	13.8	10.0	15.1
	<b>U.S. No. 3</b>	N/A	10	13.4	11.3	14.2	6	14.1	13.5	14.6	11	14.2	13.5	14.8
	<b>U.S. No. 4</b>	N/A	2	14.0	13.4	14.0	1	13.7	13.7	13.7	1	14.5	14.5	14.5
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	4	14.2	13.6	14.5	4	14.1	13.3	14.7
	<b>All lots</b>	N/A	682	13.7	11.1	15.6	740	13.7	11.1	15.5	744	13.8	10.0	15.3

N/A = Does not apply.

<sup>1</sup>The sum of the component factor averages may not equal the average for this factor due to rounding.

**Table 4. Summary of export Soft Red Winter wheat quality, factor averages by grade, 1994-96**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
Test Weight (lb/bu)	U.S.No. 2	58.0	231	59.2	58.0	62.0	328	58.8	58.0	61.7	315	58.8	58.0	61.0
	U.S.No. 3	56.0	--	--	--	--	2	57.2	56.8	57.8	13	57.5	56.2	58.8
	U.S.No. 4	54.0	--	--	--	--	1	56.7	56.7	56.7	--	--	--	--
	All lots	N/A	231	59.2	58.0	62.0	331	58.8	56.7	61.7	328	58.8	56.2	61.0
Test Weight (kg/hl)	U.S.No. 2	N/A	231	76.3	74.7	79.8	328	75.7	74.6	79.4	315	75.7	74.7	78.5
	U.S.No. 3	N/A	--	--	--	--	2	73.6	73.1	74.4	13	74.1	72.3	75.7
	U.S.No. 4	N/A	--	--	--	--	1	73.0	73.0	73.0	--	--	--	--
	All lots	N/A	231	76.3	74.7	79.8	331	75.7	73.0	79.4	328	75.6	72.3	78.5
Moisture	U.S.No. 2	N/A	231	13.2	11.2	13.7	328	13.1	12.1	13.7	315	13.0	11.5	13.7
	U.S.No. 3	N/A	--	--	--	--	2	12.9	12.7	13.4	13	13.0	11.8	13.3
	U.S.No. 4	N/A	--	--	--	--	1	13.4	13.4	13.4	--	--	--	--
	All lots	N/A	231	13.2	11.2	13.7	331	13.1	12.1	13.7	328	13.0	11.5	13.7
Heat-damaged Kernels	U.S.No. 2	0.2	231	0.0	0.0	0.1	328	0.0	0.0	0.2	315	0.0	0.0	0.2
	U.S.No. 3	0.5	--	--	--	--	2	0.0	0.0	0.0	13	0.0	0.0	0.0
	U.S.No. 4	1.0	--	--	--	--	1	0.0	0.0	0.0	--	--	--	--
	All lots	N/A	231	0.0	0.0	0.1	331	0.0	0.0	0.2	328	0.0	0.0	0.2
Damaged Kernels (Total)	U.S.No. 2	4.0	231	1.9	0.2	3.6	328	2.4	0.2	3.9	315	2.3	0.2	4.0
	U.S.No. 3	7.0	--	--	--	--	2	1.9	1.6	2.5	13	4.0	0.9	6.0
	U.S.No. 4	10.0	--	--	--	--	1	4.0	4.0	4.0	--	--	--	--
	All lots	N/A	231	1.9	0.2	3.6	331	2.4	0.2	4.0	328	2.3	0.2	6.0
Foreign Material	U.S.No. 2	0.7	231	0.2	0.0	0.7	328	0.2	0.0	0.9	315	0.1	0.0	0.5
	U.S.No. 3	1.3	--	--	--	--	2	0.2	0.1	0.2	13	0.2	0.1	0.3
	U.S.No. 4	3.0	--	--	--	--	1	0.3	0.3	0.3	--	--	--	--
	All lots	N/A	231	0.2	0.0	0.7	331	0.2	0.0	0.9	328	0.1	0.0	0.5
Shrunken and Broken	U.S.No. 2	5.0	231	0.9	0.1	2.7	328	1.0	0.0	2.6	315	1.1	0.4	2.9
	U.S.No. 3	8.0	--	--	--	--	2	0.9	0.9	0.9	13	1.4	0.8	2.1
	U.S.No. 4	12.0	--	--	--	--	1	1.5	1.5	1.5	--	--	--	--
	All lots	N/A	231	0.9	0.1	2.7	331	1.0	0.0	2.6	328	1.1	0.4	2.9
Total Defects <sup>1</sup>	U.S.No. 2	5.0	231	3.0	1.1	4.9	328	3.5	1.0	4.9	315	3.5	1.2	5.0
	U.S.No. 3	8.0	--	--	--	--	2	3.0	2.7	3.5	13	5.6	3.0	7.3
	U.S.No. 4	12.0	--	--	--	--	1	5.8	5.8	5.8	--	--	--	--
	All lots	N/A	231	3.0	1.1	4.9	331	3.5	1.0	5.8	328	3.6	1.2	7.3
Dockage	U.S.No. 2	N/A	231	0.7	0.0	1.9	328	0.7	0.3	1.4	315	0.7	0.3	1.6
	U.S.No. 3	N/A	--	--	--	--	2	0.8	0.7	0.9	13	1.0	0.3	1.4
	U.S.No. 4	N/A	--	--	--	--	1	1.1	1.1	1.1	--	--	--	--
	All lots	N/A	231	0.7	0.0	1.9	331	0.7	0.3	1.4	328	0.7	0.3	1.6

continued

**Table 4. Summary of export Soft Red Winter wheat quality, factor averages by grade, 1994-96--Continued**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Wheat of Other Classes</b>	<b>U.S.No. 2</b>	5.0	231	1.2	0.0	4.7	328	1.5	0.0	4.3	315	0.7	0.0	5.0
	<b>U.S.No. 3</b>	10.0	--	--	--	--	2	1.0	0.9	1.1	13	1.4	0.0	6.3
	<b>U.S.No. 4</b>	10.0	--	--	--	--	1	0.0	0.0	0.0	--	--	--	--
	<b>All lots</b>	N/A	231	1.2	0.0	4.7	331	1.5	0.0	4.3	328	0.7	0.0	6.3
<b>Contrasting Classes</b>	<b>U.S.No. 2</b>	2.0	231	0.0	0.0	0.7	328	0.0	0.0	0.3	315	0.0	0.0	0.8
	<b>U.S.No. 3</b>	3.0	--	--	--	--	2	0.0	0.0	0.0	13	0.0	0.0	0.1
	<b>U.S.No. 4</b>	10.0	--	--	--	--	1	0.0	0.0	0.0	--	--	--	--
	<b>All lots</b>	N/A	231	0.0	0.0	0.7	331	0.0	0.0	0.3	328	0.0	0.0	0.8
<b>Protein (as is basis)</b>	<b>U.S.No. 2</b>	N/A	64	9.7	8.9	10.5	112	10.0	8.8	11.7	138	10.4	9.2	12.7
	<b>U.S.No. 3</b>	N/A	--	--	--	--	1	9.6	9.6	9.6	7	10.6	9.7	10.9
	<b>U.S.No. 4</b>	N/A	--	--	--	--	--	--	--	--	--	--	--	--
	<b>All lots</b>	N/A	64	9.7	8.9	10.5	113	10.0	8.8	11.7	145	10.4	9.2	12.7
<b>Protein (12% moisture)</b>	<b>U.S.No. 2</b>	N/A	64	9.8	9.0	10.7	112	10.2	8.9	11.7	138	10.5	9.3	12.8
	<b>U.S.No. 3</b>	N/A	--	--	--	--	1	9.8	9.8	9.8	7	10.7	9.8	11.0
	<b>U.S.No. 4</b>	N/A	--	--	--	--	--	--	--	--	--	--	--	--
	<b>All lots</b>	N/A	64	9.8	9.0	10.7	113	10.2	8.9	11.7	145	10.5	9.3	12.8

<sup>1</sup> The sum of the component factor averages may not equal the average for this factor due to rounding.

N/A = Does not apply.  
 -- = No lots reported in this category.

**Table 5. Summary of export Durum wheat quality, factor averages by grade, 1994-96**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Test Weight (lb/bu)</b>	U.S.No. 1	60.0	7	62.2	61.6	62.5	18	63.0	61.3	64.1	15	62.7	61.5	63.9
	U.S.No. 2	58.0	58	60.2	58.4	64.1	50	61.1	58.9	63.5	58	60.5	58.7	63.4
	U.S.No. 3	56.0	36	58.9	57.0	62.3	44	59.6	57.1	63.1	29	59.0	58.0	60.2
	U.S.No. 4	54.0	1	59.1	59.1	59.1	--	--	--	--	1	59.2	59.2	59.2
	U.S. Sample Grade	N/A	1	62.8	62.8	62.8	--	--	--	--	--	--	--	--
	All lots	N/A	103	59.6	57.0	64.1	112	60.7	57.1	64.1	103	60.2	58.0	63.9
<b>Test Weight (kg/hl)</b>	U.S.No. 1	N/A	7	80.1	79.3	80.4	18	81.2	79.0	82.6	15	80.7	79.1	82.3
	U.S.No. 2	N/A	58	77.5	75.2	82.5	50	78.7	75.9	81.7	58	77.8	75.6	81.6
	U.S.No. 3	N/A	36	75.8	73.3	80.2	44	76.8	73.5	81.2	29	75.9	74.7	77.5
	U.S.No. 4	N/A	1	76.1	76.1	76.1	--	--	--	--	1	76.2	76.2	76.2
	U.S. Sample Grade	N/A	1	80.9	80.9	80.9	--	--	--	--	--	--	--	--
	All lots	N/A	103	76.8	73.3	82.5	112	78.1	73.5	82.6	103	77.5	74.7	82.3
<b>Moisture</b>	U.S.No. 1	N/A	7	7.6	6.9	9.0	18	8.4	7.3	12.1	15	7.5	6.7	9.0
	U.S.No. 2	N/A	58	12.0	7.6	13.5	50	11.4	7.2	13.1	58	12.2	7.8	13.4
	U.S.No. 3	N/A	36	12.6	7.7	13.6	44	12.5	11.5	13.2	29	13.0	12.7	13.3
	U.S.No. 4	N/A	1	13.0	13.0	13.0	--	--	--	--	1	12.8	12.8	12.8
	U.S. Sample Grade	N/A	1	9.2	9.2	9.2	--	--	--	--	--	--	--	--
	All lots	N/A	103	12.1	6.9	13.6	112	11.5	7.2	13.2	103	11.8	6.7	13.4
<b>Heat-damaged Kernels</b>	U.S.No. 1	0.2	7	0.0	0.0	0.0	18	0.0	0.0	0.0	15	0.0	0.0	0.0
	U.S.No. 2	0.2	58	0.0	0.0	0.0	50	0.0	0.0	0.0	58	0.0	0.0	0.0
	U.S.No. 3	0.5	36	0.0	0.0	0.0	44	0.0	0.0	0.1	29	0.0	0.0	0.0
	U.S.No. 4	1.0	1	0.0	0.0	0.0	--	--	--	--	1	0.0	0.0	0.0
	U.S. Sample Grade	N/A	1	0.0	0.0	0.0	--	--	--	--	--	--	--	--
	All lots	N/A	103	0.0	0.0	0.0	112	0.0	0.0	0.1	103	0.0	0.0	0.0
<b>Damaged Kernels (Total)</b>	U.S.No. 1	2.0	7	0.7	0.3	1.9	18	0.9	0.4	1.5	15	0.5	0.2	1.2
	U.S.No. 2	4.0	58	1.4	0.1	2.3	50	1.7	0.5	2.9	58	2.0	0.1	2.7
	U.S.No. 3	7.0	36	3.1	1.0	5.2	44	4.0	0.5	5.1	29	4.0	2.3	5.3
	U.S.No. 4	10.0	1	1.7	1.7	1.7	--	--	--	--	1	6.3	6.3	6.3
	U.S. Sample Grade	N/A	1	1.7	1.7	1.7	--	--	--	--	--	--	--	--
	All lots	N/A	103	2.2	0.1	5.2	112	2.7	0.4	5.1	103	2.6	0.1	6.3
<b>Foreign Material</b>	U.S.No. 1	0.4	7	0.1	0.1	0.3	18	0.2	0.1	0.3	15	0.2	0.1	0.3
	U.S.No. 2	0.7	58	0.4	0.1	0.7	50	0.5	0.1	0.7	58	0.4	0.1	0.6
	U.S.No. 3	1.3	36	0.6	0.1	1.0	44	0.9	0.1	1.2	29	0.5	0.2	1.0
	U.S.No. 4	3.0	1	0.8	0.8	0.8	--	--	--	--	1	0.5	0.5	0.5
	U.S. Sample Grade	N/A	1	0.2	0.2	0.2	--	--	--	--	--	--	--	--
	All lots	N/A	103	0.5	0.1	1.0	112	0.6	0.1	1.2	103	0.4	0.1	1.0

N/A = Does not apply.  
 -- = No lots reported in this category.

continued

**Table 5. Summary of export Durum wheat quality, factor averages by grade, 1994-96--Continued**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Shrunken and Broken</b>	U.S.No. 1	3.0	7	0.6	0.4	1.0	18	0.4	0.1	1.8	15	0.7	0.3	1.3
	U.S.No. 2	5.0	58	1.7	0.2	2.5	50	1.6	0.6	2.5	58	1.7	0.6	2.4
	U.S.No. 3	8.0	36	2.1	0.8	3.6	44	2.1	1.4	2.4	29	2.3	1.5	3.0
	U.S.No. 4	12.0	1	1.8	1.8	1.8	--	--	--	--	1	2.1	2.1	2.1
	U.S. Sample Grade	N/A	1	1.0	1.0	1.0	--	--	--	--	--	--	--	--
	All lots	N/A	103	1.9	0.2	3.6	112	1.7	0.1	2.5	103	1.8	0.3	3.0
<b>Total Defects<sup>1</sup></b>	U.S.No. 1	3.0	7	1.4	0.9	2.5	18	1.4	0.8	2.5	15	1.3	1.0	2.1
	U.S.No. 2	5.0	58	3.5	0.8	4.9	50	3.8	1.6	5.0	58	4.0	1.3	5.0
	U.S.No. 3	8.0	36	5.9	1.9	7.9	44	6.9	2.2	7.8	29	6.8	4.5	7.9
	U.S.No. 4	12.0	1	4.3	4.3	4.3	--	--	--	--	1	8.9	8.9	8.9
	U.S. Sample Grade	N/A	1	2.9	2.9	2.9	--	--	--	--	--	--	--	--
	All lots	N/A	103	4.5	0.8	7.9	112	5.0	0.8	7.8	103	4.8	1.0	8.9
<b>Dockage</b>	U.S.No. 1	N/A	7	0.6	0.4	0.8	18	0.6	0.3	1.2	15	0.8	0.4	1.2
	U.S.No. 2	N/A	58	0.8	0.3	1.2	50	0.8	0.3	1.0	58	0.8	0.1	1.2
	U.S.No. 3	N/A	36	0.8	0.5	1.1	44	0.8	0.5	1.1	29	0.8	0.4	1.2
	U.S.No. 4	N/A	1	0.8	0.8	0.8	--	--	--	--	1	0.8	0.8	0.8
	U.S. Sample Grade	N/A	1	0.6	0.6	0.6	--	--	--	--	--	--	--	--
	All lots	N/A	103	0.8	0.3	1.2	112	0.8	0.3	1.2	103	0.8	0.1	1.2
<b>Contrasting Classes</b>	U.S.No. 1	1.0	7	0.1	0.0	0.7	18	0.1	0.0	0.8	15	0.0	0.0	0.2
	U.S.No. 2	2.0	58	1.1	0.0	2.0	50	1.1	0.0	1.8	58	0.9	0.0	1.8
	U.S.No. 3	3.0	36	1.8	0.0	2.8	44	1.5	0.6	2.4	29	1.5	0.0	2.5
	U.S.No. 4	10.0	1	0.9	0.9	0.9	--	--	--	--	1	0.6	0.6	0.6
	U.S. Sample Grade	N/A	1	0.6	0.6	0.6	--	--	--	--	--	--	--	--
	All lots	N/A	103	1.4	0.0	2.8	112	1.1	0.0	2.4	103	1.0	0.0	2.5
<b>Protein (as is basis)</b>	U.S.No. 1	N/A	--	--	--	--	9	14.9	13.7	15.5	--	--	--	--
	U.S.No. 2	N/A	21	13.0	12.1	13.5	17	12.6	12.1	13.4	20	13.0	11.2	14.4
	U.S.No. 3	N/A	8	11.7	11.3	11.9	2	12.9	12.8	13.2	4	13.3	13.0	13.5
	U.S.No. 4	N/A	1	13.0	13.0	13.0	--	--	--	--	--	--	--	--
	U.S. Sample Grade	N/A	1	12.9	12.9	12.9	--	--	--	--	--	--	--	--
	All lots	N/A	31	12.7	11.3	13.5	28	13.4	12.1	15.5	24	13.1	11.2	14.4
<b>Protein (12% moisture)</b>	U.S.No. 1	N/A	--	--	--	--	9	14.3	13.6	14.7	--	--	--	--
	U.S.No. 2	N/A	21	13.1	12.2	13.6	17	12.5	12.1	13.2	20	13.1	11.3	14.2
	U.S.No. 3	N/A	8	11.9	11.5	12.1	2	12.9	12.8	13.3	4	13.5	13.2	13.6
	U.S.No. 4	N/A	1	13.1	13.1	13.1	--	--	--	--	--	--	--	--
	U.S. Sample Grade	N/A	1	12.5	12.5	12.5	--	--	--	--	--	--	--	--
	All lots	N/A	31	12.8	11.5	13.6	28	13.1	12.1	14.7	24	13.2	11.3	14.2

<sup>1</sup> The sum of the component factor averages may not equal the average for this factor due to rounding.



**Table 6. Summary of export Soft White wheat quality, factor averages by grade, 1994-96**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Test Weight (lb/bu)</b>	U.S.No. 1	60.0	127	61.5	60.2	63.0	142	61.7	60.3	63.3	141	61.8	60.6	63.2
	U.S.No. 2	58.0	329	61.2	58.1	62.9	289	61.6	59.3	63.2	292	61.7	59.6	63.2
	U.S.No. 5	51.0	--	--	--	--	--	--	--	--	3	61.3	61.3	61.3
	All lots	N/A	456	61.2	58.1	63.0	431	61.6	59.3	63.3	436	61.7	59.6	63.2
<b>Test Weight (kg/hl)</b>	U.S.No. 1	N/A	127	79.1	77.5	81.1	142	79.4	77.6	81.5	141	79.6	78.0	81.4
	U.S.No. 2	N/A	329	78.7	74.8	80.9	289	79.3	76.4	81.4	292	79.4	76.8	81.4
	U.S.No. 5	N/A	--	--	--	--	--	--	--	--	3	78.9	78.9	78.9
	All lots	N/A	456	78.8	74.8	81.1	431	79.4	76.4	81.5	436	79.4	76.8	81.4
<b>Moisture</b>	U.S.No. 1	N/A	127	9.9	8.1	12.1	142	9.7	8.0	11.6	141	9.9	8.4	11.3
	U.S.No. 2	N/A	329	10.1	8.0	13.3	289	9.8	8.2	12.9	292	9.7	8.7	11.6
	U.S.No. 5	N/A	--	--	--	--	--	--	--	--	3	9.0	8.9	9.2
	All lots	N/A	456	10.0	8.0	13.3	431	9.8	8.0	12.9	436	9.7	8.4	11.6
<b>Heat-damaged Kernels</b>	U.S.No. 1	0.2	127	0.0	0.0	0.0	142	0.0	0.0	0.0	141	0.0	0.0	0.1
	U.S.No. 2	0.2	329	0.0	0.0	0.1	289	0.0	0.0	0.1	292	0.0	0.0	0.0
	U.S.No. 5	3.0	--	--	--	--	--	--	--	--	3	0.0	0.0	0.0
	All lots	N/A	456	0.0	0.0	0.1	431	0.0	0.0	0.1	436	0.0	0.0	0.1
<b>Damaged Kernels (Total)</b>	U.S.No. 1	2.0	127	0.3	0.0	1.8	142	0.1	0.0	0.8	141	0.1	0.0	0.9
	U.S.No. 2	4.0	329	0.6	0.0	3.0	289	0.3	0.0	1.2	292	0.2	0.0	3.1
	U.S.No. 5	15.0	--	--	--	--	--	--	--	--	3	0.1	0.1	0.2
	All lots	N/A	456	0.6	0.0	3.0	431	0.3	0.0	1.2	436	0.2	0.0	3.1
<b>Foreign Material</b>	U.S.No. 1	0.4	127	0.1	0.0	0.4	142	0.2	0.0	0.4	141	0.1	0.0	0.4
	U.S.No. 2	0.7	329	0.2	0.0	0.6	289	0.2	0.0	0.7	292	0.2	0.0	0.9
	U.S.No. 5	5.0	--	--	--	--	--	--	--	--	3	0.6	0.1	1.9
	All lots	N/A	456	0.2	0.0	0.6	431	0.2	0.0	0.7	436	0.2	0.0	1.9
<b>Shrunken and Broken</b>	U.S.No. 1	3.0	127	1.0	0.4	1.8	142	1.1	0.5	1.8	141	1.0	0.6	1.5
	U.S.No. 2	5.0	329	1.0	0.1	2.1	289	1.0	0.0	2.4	292	1.0	0.7	2.1
	U.S.No. 5	20.0	--	--	--	--	--	--	--	--	3	1.2	1.1	1.6
	All lots	N/A	456	1.0	0.1	2.1	431	1.0	0.0	2.4	436	1.0	0.6	2.1
<b>Total Defects<sup>1</sup></b>	U.S.No. 1	3.0	127	1.5	0.5	2.6	142	1.4	0.5	2.2	141	1.3	0.7	2.3
	U.S.No. 2	5.0	329	1.8	0.9	3.9	289	1.5	0.0	2.8	292	1.4	0.8	4.4
	U.S.No. 5	20.0	--	--	--	--	--	--	--	--	3	1.9	1.3	3.6
	All lots	N/A	456	1.8	0.5	3.9	431	1.5	0.0	2.8	436	1.4	0.7	4.4
<b>Dockage</b>	U.S.No. 1	N/A	127	0.6	0.3	0.9	142	0.5	0.2	0.8	141	0.5	0.3	0.7
	U.S.No. 2	N/A	329	0.6	0.3	1.7	289	0.6	0.3	1.2	292	0.5	0.3	1.0
	U.S.No. 5	N/A	--	--	--	--	--	--	--	--	3	0.7	0.6	1.0
	All lots	N/A	456	0.6	0.3	1.7	431	0.6	0.2	1.2	436	0.5	0.3	1.0

continued

**Table 6. Summary of export Soft White wheat quality, factor averages by grade, 1994-96--Continued**

Factor	Grade	1994					1995					1996			
		Grade Limit	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	
<b>Wheat of Other Classes</b>	<b>U.S.No. 1</b>	3.0	127	0.2	0.0	0.8	142	0.3	0.0	0.9	141	0.3	0.0	1.0	
	<b>U.S.No. 2</b>	5.0	329	0.6	0.0	2.1	289	0.8	0.0	1.9	292	0.5	0.0	1.6	
	<b>U.S.No. 5</b>	10.0	--	--	--	--	--	--	--	--	3	1.7	0.3	5.6	
	<b>All lots</b>	N/A	456	0.5	0.0	2.1	431	0.7	0.0	1.9	436	0.5	0.0	5.6	
<b>Contrasting Classes</b>	<b>U.S.No. 1</b>	1.0	127	0.2	0.0	1.0	142	0.3	0.0	0.9	141	0.3	0.0	1.0	
	<b>U.S.No. 2</b>	2.0	329	0.6	0.0	1.8	289	0.8	0.0	1.9	292	0.5	0.0	1.6	
	<b>U.S.No. 5</b>	10.0	--	--	--	--	--	--	--	--	3	1.7	0.3	5.6	
	<b>All lots</b>	N/A	456	0.5	0.0	1.8	431	0.7	0.0	1.9	436	0.5	0.0	5.6	
<b>Protein (as is basis)</b>	<b>U.S.No. 1</b>	N/A	122	10.5	8.8	12.3	140	10.5	8.9	12.5	135	9.9	8.6	11.0	
	<b>U.S.No. 2</b>	N/A	156	10.5	9.2	13.2	214	10.8	9.1	12.4	179	10.2	9.0	11.1	
	<b>U.S.No. 5</b>	N/A	--	--	--	--	--	--	--	--	1	10.4	10.4	10.4	
	<b>All lots</b>	N/A	278	10.5	8.8	13.2	354	10.7	8.9	12.5	315	10.1	8.6	11.1	
<b>Protein (12% moisture)</b>	<b>U.S.No. 1</b>	N/A	122	10.2	8.6	11.8	140	10.2	8.6	12.1	135	9.7	8.4	10.8	
	<b>U.S.No. 2</b>	N/A	156	10.3	9.1	13.1	214	10.5	9.0	11.9	179	9.9	8.9	10.9	
	<b>U.S.No. 5</b>	N/A	--	--	--	--	--	--	--	--	1	10.1	10.1	10.1	
	<b>All lots</b>	N/A	278	10.3	8.6	13.1	354	10.4	8.6	12.1	315	9.9	8.4	10.9	

N/A = Does not apply.

-- = No lots reported in this category.

<sup>1</sup>The sum of the component factor averages may not equal the average for this factor due to rounding.

**Table 7. Summary of export Hard White wheat quality, 1994-96**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
Test Weight (lb/bu)	U.S.No. 1	60.0	--	--	--	--	1	63.1	63.1	63.1	--	--	--	--
	All lots	N/A	--	--	--	--	1	63.1	63.1	63.1	--	--	--	--
Test Weight (kg/hl)	U.S.No. 1	N/A	--	--	--	--	1	81.2	81.2	81.2	--	--	--	--
	All lots	N/A	--	--	--	--	1	81.2	81.2	81.2	--	--	--	--
Moisture	U.S.No. 1	N/A	--	--	--	--	1	10.6	10.6	10.6	--	--	--	--
	All lots	N/A	--	--	--	--	1	10.6	10.6	10.6	--	--	--	--
Heat-damaged Kernels	U.S.No. 1	0.2	--	--	--	--	1	0.0	0.0	0.0	--	--	--	--
	All lots	N/A	--	--	--	--	1	0.0	0.0	0.0	--	--	--	--
Damaged Kernels (Total)	U.S.No. 1	2.0	--	--	--	--	1	0.8	0.8	0.8	--	--	--	--
	All lots	N/A	--	--	--	--	1	0.8	0.8	0.8	--	--	--	--
Foreign Material	U.S.No. 1	0.4	--	--	--	--	1	0.1	0.1	0.1	--	--	--	--
	All lots	N/A	--	--	--	--	1	0.1	0.1	0.1	--	--	--	--
Shrunken and Broken	U.S.No. 1	3.0	--	--	--	--	1	1.1	1.1	1.1	--	--	--	--
	All lots	N/A	--	--	--	--	1	1.1	1.1	1.1	--	--	--	--
Total Defects	U.S.No. 1	3.0	--	--	--	--	1	2.0	2.0	2.0	--	--	--	--
	All lots	N/A	--	--	--	--	1	2.0	2.0	2.0	--	--	--	--
Dockage	U.S.No. 1	N/A	--	--	--	--	1	0.3	0.3	0.3	--	--	--	--
	All lots	N/A	--	--	--	--	1	0.3	0.3	0.3	--	--	--	--
Wheat of other Classes	U.S.No. 1	3.0	--	--	--	--	1	0.1	0.1	0.1	--	--	--	--
	All lots	N/A	--	--	--	--	1	0.1	0.1	0.1	--	--	--	--
Contrasting Classes	U.S.No. 1	1.0	--	--	--	--	1	0.1	0.1	0.1	--	--	--	--
	All lots	N/A	--	--	--	--	1	0.1	0.1	0.1	--	--	--	--
Protein (as is basis)	U.S.No. 1	N/A	--	--	--	--	1	11.4	11.4	11.4	--	--	--	--
	All lots	N/A	--	--	--	--	1	11.4	11.4	11.4	--	--	--	--
Protein (12% moisture)	U.S.No. 1	N/A	--	--	--	--	1	11.2	11.2	11.2	--	--	--	--
	All lots	N/A	--	--	--	--	1	11.2	11.2	11.2	--	--	--	--

N/A = Does not apply.  
 -- = No lots reported in this category.

**Table 8. Summary of export Mixed wheat quality, 1994-96**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
Test Weight (lb/bu)	U.S.No. 2	58.0	--	--	--	--	--	--	--	--	2	60.7	59.8	61.6
	U.S.No. 3	56.0	--	--	--	--	--	--	--	--	1	59.6	59.6	59.6
	U.S.No. 4	54.0	--	--	--	--	1	57.6	57.6	57.6	--	--	--	--
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	4	57.0	54.4	57.8
	All lots	N/A	--	--	--	--	1	57.6	57.6	57.6	7	58.2	54.4	61.6
Test Weight (kg/hl)	U.S.No. 2	N/A	--	--	--	--	--	--	--	--	2	78.2	77.0	79.4
	U.S.No. 3	N/A	--	--	--	--	--	--	--	--	1	76.8	76.8	76.8
	U.S.No. 4	N/A	--	--	--	--	1	74.1	74.1	74.1	--	--	--	--
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	4	73.4	70.0	74.5
	All lots	N/A	--	--	--	--	1	74.1	74.1	74.1	7	75.0	70.0	79.4
Moisture	U.S.No. 2	N/A	--	--	--	--	--	--	--	--	2	11.8	10.9	12.7
	U.S.No. 3	N/A	--	--	--	--	--	--	--	--	1	13.6	13.6	13.6
	U.S.No. 4	N/A	--	--	--	--	1	13.5	13.5	13.5	--	--	--	--
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	4	13.1	12.8	13.5
	All lots	N/A	--	--	--	--	1	13.5	13.5	13.5	7	12.9	10.9	13.6
Heat-damaged Kernels	U.S.No. 2	0.2	--	--	--	--	--	--	--	--	2	0.0	0.0	0.0
	U.S.No. 3	0.5	--	--	--	--	--	--	--	--	1	0.0	0.0	0.0
	U.S.No. 4	1.0	--	--	--	--	1	0.0	0.0	0.0	--	--	--	--
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	4	2.5	0.1	8.0
	All lots	N/A	--	--	--	--	1	0.0	0.0	0.0	7	1.6	0.0	8.0
Damaged Kernels (Total)	U.S.No. 2	4.0	--	--	--	--	--	--	--	--	2	2.0	1.6	2.4
	U.S.No. 3	7.0	--	--	--	--	--	--	--	--	1	3.6	3.6	3.6
	U.S.No. 4	10.0	--	--	--	--	1	5.5	5.5	5.5	--	--	--	--
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	4	44.9	19.0	91.8
	All lots	N/A	--	--	--	--	1	5.5	5.5	5.5	7	29.1	1.6	91.8
Foreign Material	U.S.No. 2	0.7	--	--	--	--	--	--	--	--	2	0.2	0.1	0.3
	U.S.No. 3	1.3	--	--	--	--	--	--	--	--	1	0.3	0.3	0.3
	U.S.No. 4	3.0	--	--	--	--	1	0.3	0.3	0.3	--	--	--	--
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	4	0.6	0.3	1.4
	All lots	N/A	--	--	--	--	1	0.3	0.3	0.3	7	0.5	0.1	1.4

continued

**Table 8. Summary of export Mixed wheat quality, 1994-96--Continued**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Shrunken and Broken</b>	U.S.No. 2	5.0	--	--	--	--	--	--	--	--	2	1.8	1.5	2.0
	U.S.No. 3	8.0	--	--	--	--	--	--	--	--	1	1.3	1.3	1.3
	U.S.No. 4	12.0	--	--	--	--	1	1.9	1.9	1.9	--	--	--	--
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	4	2.5	1.7	4.2
	All lots	N/A	--	--	--	--	1	1.9	1.9	1.9	7	2.2	1.3	4.2
<b>Total Defects</b>	U.S.No. 2	5.0	--	--	--	--	--	--	--	--	2	4.0	3.2	4.7
	U.S.No. 3	8.0	--	--	--	--	--	--	--	--	1	5.2	5.2	5.2
	U.S.No. 4	12.0	--	--	--	--	1	7.7	7.7	7.7	--	--	--	--
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	4	48.1	23.3	95.2
	All lots	N/A	--	--	--	--	1	7.7	7.7	7.7	7	31.7	3.2	95.2
<b>Dockage</b>	U.S.No. 2	N/A	--	--	--	--	--	--	--	--	2	0.9	0.9	1.0
	U.S.No. 3	N/A	--	--	--	--	--	--	--	--	1	0.9	0.9	0.9
	U.S.No. 4	N/A	--	--	--	--	1	1.0	1.0	1.0	--	--	--	--
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	4	1.3	0.9	2.2
	All lots	N/A	--	--	--	--	1	1.0	1.0	1.0	7	1.2	0.9	2.2
<b>Wheat of other classes</b>	U.S.No. 2	5.0	--	--	--	--	--	--	--	--	2	0.0	0.0	0.0
	U.S.No. 3	10.0	--	--	--	--	--	--	--	--	1	0.0	0.0	0.0
	U.S.No. 4	10.0	--	--	--	--	1	0.0	0.0	0.0	--	--	--	--
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	4	0.0	0.0	0.0
	All lots	N/A	--	--	--	--	1	0.0	0.0	0.0	7	0.0	0.0	0.0
<b>Contrasting Classes</b>	U.S.No. 2	2.0	--	--	--	--	--	--	--	--	2	0.0	0.0	0.0
	U.S.No. 3	3.0	--	--	--	--	--	--	--	--	1	0.0	0.0	0.0
	U.S.No. 4	10.0	--	--	--	--	1	0.0	0.0	0.0	--	--	--	--
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	4	0.0	0.0	0.0
	All lots	N/A	--	--	--	--	1	0.0	0.0	0.0	7	0.0	0.0	0.0
<b>Protein (as is basis)</b>	U.S.No. 2	N/A	--	--	--	--	--	--	--	--	2	10.9	10.6	11.2
	U.S.No. 3	N/A	--	--	--	--	--	--	--	--	1	10.9	10.9	10.9
	U.S.No. 4	N/A	--	--	--	--	--	--	--	--	--	--	--	--
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	3	12.7	12.6	12.9
	All lots	N/A	--	--	--	--	--	--	--	--	6	11.8	10.6	12.9
<b>Protein (12% moisture)</b>	U.S.No. 2	N/A	--	--	--	--	--	--	--	--	2	10.9	10.7	11.1
	U.S.No. 3	N/A	--	--	--	--	--	--	--	--	1	11.1	11.1	11.1
	U.S.No. 4	N/A	--	--	--	--	--	--	--	--	--	--	--	--
	U.S. Sample Grade	N/A	--	--	--	--	--	--	--	--	3	12.8	12.7	13.1
	All lots	N/A	--	--	--	--	--	--	--	--	6	11.9	10.7	13.1

-- = No lots reported in this category.

## Export Corn

### Corn Grades and Grade Requirements

Corn is divided into three classes: Yellow corn, White Corn, and Mixed corn. There are no subclasses of corn. Each class of corn is divided into five U.S. numerical grades and U.S.

Sample grade. Special grades are provided to emphasize the qualities or conditions affecting the value of the corn. These special grades are made a part of the grade designation but do not affect the numerical or Sample grade designation.

### U.S. Standards for Corn

Grade	Minimum test weight per bushel (pounds)	Maximum limits of -		
		Damaged kernels		Broken corn and foreign material (percent)
		Heat-damaged kernels (percent)	Total damaged kernels (percent)	
U.S. No. 1	56.0	0.1	3.0	2.0
U.S. No. 2	54.0	0.2	5.0	3.0
U.S. No. 3	52.0	0.5	7.0	4.0
U.S. No. 4	49.0	1.0	10.0	5.0
U.S. No. 5	46.0	3.0	15.0	7.0
U.S. Sample grade				

U.S. Sample grade is corn that:

- (a) Does not meet the requirements for the grades U.S. Nos. 1, 2, 3, 4, or 5; or
- (b) Contains stones which have an aggregate weight in excess of 0.1 percent of the sample weight, 2 or more pieces of glass, 3 or more crotalaria seeds (*Crotalaria* spp.), 2 or more castor beans, 8 or more cockleburrs, 4 or more particles of an unknown foreign substance(s) or a commonly recognized harmful or toxic substance(s), or animal filth in excess of 0.20 percent in 1,000 grams; or
- (c) Has a musty, sour, or commercially objectionable foreign odor; or
- (d) Is heating or otherwise of distinctly low quality.

## Corn

### Definitions

**Test weight (lb/bu)** is pounds of grain per Winchester bushel.

**Test weight (kg/hl)** is the metric system equivalent to pounds per bushel. Kilograms per hectoliter are calculated by multiplying pounds per bushel by 1.287.

**Moisture** is the water content of grain as determined by an approved electronic moisture meter. The percentage of moisture in a sample does not affect the numerical grade.

**Broken corn** is all matter that passes readily through a 12/64-inch round-hole sieve and over a 6/64-inch round-hole sieve. The percentage of broken corn by itself does not affect the numerical grade.

**Foreign material** is all matter that passes readily through a 6/64-inch round-hole sieve and all matter other than corn that remains on top of the 12/64-inch round-hole sieve. The percentage of foreign material by itself does not affect the numerical grade.

**Broken corn and foreign material** is comprised of kernels

and pieces of kernels of corn and all matter other than corn which will pass readily through a 12/64-inch sieve, and all matter other than corn which remains in the sieved sample.

**Damaged kernels (total)** are kernels and pieces of corn kernels that are badly ground-damaged, badly weather-damaged, diseased, frost-damaged, germ-damaged, heat-damaged, insect-bored, mold-damaged, sprout-damaged, or otherwise materially damaged.

**Heat-damaged kernels** are defined as kernels and pieces of kernels which are materially discolored by excessive respiration, with dark discoloration extending out of the germ, through the sides, and into the back of the kernel.

**Mixed corn** is a combination of classes of corn which does not meet the minimum requirements of a specific class.

**Table 9. U.S. Corn Exports: Number of lots and quantity exported by class and grade, 1994-96**

Class	Grade	1994		1995		1996	
		Number of Lots	Metric Tons	Number of Lots	Metric Tons	Number of Lots	Metric Tons
<b>Yellow Corn</b>	<b>U.S. No. 1</b>	35	331,551	48	310,288	36	415,247
	<b>U.S. No. 2</b>	673	14,158,931	1,165	29,360,525	1,038	23,786,278
	<b>U.S. No. 3</b>	614	18,506,913	835	28,744,502	711	25,459,768
	<b>U.S. No. 4</b>	6	43,102	2	2,820	3	4,827
	<b>U.S. No. 5</b>	1	2,549	1	1,346	--	--
	<b>U.S. Sample Grade</b>	5	19,301	--	--	1	410
	<b>Not inspected</b>	6	8,239	6	19,533	8	25,096
	<b>All lots</b>	1,340	33,070,586	2,057	58,439,014	1,797	49,691,626
<b>White Corn</b>	<b>U.S. No. 1</b>	9	93,693	7	63,545	8	44,740
	<b>U.S. No. 2</b>	31	302,086	31	541,204	31	426,393
	<b>U.S. No. 3</b>	2	1,491	1	3,824	2	6,470
	<b>U.S. Sample Grade</b>	--	--	1	1,356	--	--
	<b>Not inspected</b>	--	--	--	--	1	1,501
	<b>All lots</b>	42	397,270	40	609,929	42	479,104
<b>All Classes</b>	<b>U.S. No. 1</b>	44	425,244	55	373,833	44	459,987
	<b>U.S. No. 2</b>	704	14,461,017	1,196	29,901,729	1,069	24,212,671
	<b>U.S. No. 3</b>	616	18,508,404	836	28,748,326	713	25,466,238
	<b>U.S. No. 4</b>	6	43,102	2	2,820	3	4,827
	<b>U.S. No. 5</b>	1	2,549	1	1,346	--	--
	<b>U.S. Sample Grade</b>	5	19,301	1	1,356	1	410
	<b>Not inspected</b>	6	8,239	6	19,533	9	26,597
	<b>All lots</b>	1,382	33,467,856	2,097	59,048,943	1,839	50,170,730

-- = No lots reported in this category.

Not inspected = These lots were sold without grade designation.



**Table 10. Summary of export Yellow corn quality, 1994-96**

Factor	Grade	Grade Limit	1994				1995				1996				
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	
<b>Test Weight (lb/bu)</b>	<b>U.S.No. 1</b>	56.0	35	57.3	56.3	59.5	48	57.9	56.0	60.7	36	57.2	56.0	59.7	
	<b>U.S.No. 2</b>	54.0	673	56.1	54.0	60.5	1,165	56.7	54.0	60.6	1,038	56.1	54.1	60.3	
	<b>U.S.No. 3</b>	52.0	614	55.6	52.2	59.9	835	56.8	53.4	59.3	711	55.9	52.6	59.1	
	<b>U.S.No. 4</b>	49.0	6	54.7	52.0	55.9	2	57.1	57.0	57.5	3	53.1	52.3	56.6	
	<b>U.S.No. 5</b>	46.0	1	56.0	56.0	56.0	1	58.1	58.1	58.1	--	--	--	--	
	<b>U.S. Sample Grade</b>	N/A	5	55.1	52.8	56.9	--	--	--	--	--	1	57.4	57.4	57.4
	<b>All lots</b>	N/A	1,334	55.8	52.0	60.5	2,051	56.7	53.4	60.7	1,789	56.0	52.3	60.3	
<b>Test Weight (kg/hl)</b>	<b>U.S.No. 1</b>	N/A	35	73.8	72.5	76.6	48	74.6	72.1	78.1	36	73.7	72.1	76.8	
	<b>U.S.No. 2</b>	N/A	673	72.2	69.5	77.8	1,165	72.9	69.5	78.1	1,038	72.2	69.6	77.6	
	<b>U.S.No. 3</b>	N/A	614	71.6	67.2	77.1	835	73.1	68.7	76.4	711	72.0	67.8	76.0	
	<b>U.S.No. 4</b>	N/A	6	70.4	66.9	72.0	2	73.4	73.4	74.0	3	68.3	67.3	72.9	
	<b>U.S.No. 5</b>	N/A	1	72.1	72.1	72.1	1	74.8	74.8	74.8	--	--	--	--	
	<b>U.S. Sample Grade</b>	N/A	5	70.9	68.0	73.3	--	--	--	--	--	1	73.9	73.9	73.9
	<b>All lots</b>	N/A	1,334	71.9	66.9	77.8	2,051	73.0	68.7	78.1	1,789	72.1	67.3	77.6	
<b>Moisture</b>	<b>U.S.No. 1</b>	N/A	35	14.5	13.2	15.1	48	14.3	13.4	14.8	36	14.2	13.3	14.9	
	<b>U.S.No. 2</b>	N/A	673	14.4	12.8	15.6	1,165	14.2	12.1	15.2	1,038	14.3	13.1	15.4	
	<b>U.S.No. 3</b>	N/A	614	14.5	11.8	15.0	835	14.4	13.0	15.2	711	14.5	13.4	15.5	
	<b>U.S.No. 4</b>	N/A	6	14.1	13.6	14.6	2	14.4	14.4	14.6	3	14.8	13.7	15.0	
	<b>U.S.No. 5</b>	N/A	1	14.0	14.0	14.0	1	13.5	13.5	13.5	--	--	--	--	
	<b>U.S. Sample Grade</b>	N/A	5	14.3	14.1	14.5	--	--	--	--	--	1	14.6	14.6	14.6
	<b>All lots</b>	N/A	1,334	14.5	11.8	15.6	2,051	14.3	12.1	15.2	1,789	14.4	13.1	15.5	
<b>Heat-damaged Kernels</b>	<b>U.S.No. 1</b>	0.1	35	0.0	0.0	0.0	48	0.0	0.0	0.0	36	0.0	0.0	0.0	
	<b>U.S.No. 2</b>	0.2	673	0.0	0.0	0.1	1,165	0.0	0.0	0.1	1,038	0.0	0.0	0.2	
	<b>U.S.No. 3</b>	0.5	614	0.0	0.0	0.2	835	0.0	0.0	0.2	711	0.0	0.0	0.2	
	<b>U.S.No. 4</b>	1.0	6	0.0	0.0	0.1	2	0.0	0.0	0.0	3	0.0	0.0	0.0	
	<b>U.S.No. 5</b>	3.0	1	0.0	0.0	0.0	1	0.0	0.0	0.0	--	--	--	--	
	<b>U.S. Sample Grade</b>	N/A	5	0.0	0.0	0.0	--	--	--	--	--	1	0.0	0.0	0.0
	<b>All lots</b>	N/A	1,334	0.0	0.0	0.2	2,051	0.0	0.0	0.2	1,789	0.0	0.0	0.2	
<b>Damaged Kernels (Total)</b>	<b>U.S.No. 1</b>	3.0	35	1.8	0.5	2.9	48	1.5	0.4	3.0	36	1.7	0.8	2.6	
	<b>U.S.No. 2</b>	5.0	673	3.4	0.3	5.0	1,165	2.3	0.3	5.0	1,038	2.2	0.5	4.9	
	<b>U.S.No. 3</b>	7.0	614	4.8	0.2	7.0	835	2.5	0.4	6.3	711	2.3	0.3	5.8	
	<b>U.S.No. 4</b>	10.0	6	8.2	2.6	10.0	2	2.7	2.4	2.7	3	1.1	0.6	2.2	
	<b>U.S.No. 5</b>	15.0	1	11.9	11.9	11.9	1	10.5	10.5	10.5	--	--	--	--	
	<b>U.S. Sample Grade</b>	N/A	5	14.0	1.3	58.6	--	--	--	--	--	1	2.5	2.5	2.5
	<b>All lots</b>	N/A	1,334	4.2	0.2	58.6	2,051	2.4	0.3	10.5	1,789	2.2	0.3	5.8	

continued

**Table 10. Summary of export Yellow corn quality, 1994-96--Continued**

Factor	Grade	1994					1995					1996			
		Grade Limit	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	
<b>Broken Corn and Foreign Material</b>	<b>U.S.No. 1</b>	2.0	35	1.8	1.1	2.0	48	1.6	0.9	2.0	36	1.8	1.1	1.9	
	<b>U.S.No. 2</b>	3.0	673	2.7	0.9	3.0	1,165	2.7	0.8	3.0	1,038	2.8	1.2	3.0	
	<b>U.S.No. 3</b>	4.0	614	3.6	1.9	4.0	835	3.4	1.1	4.0	711	3.7	2.0	4.0	
	<b>U.S.No. 4</b>	5.0	6	2.9	1.5	3.2	2.0	4.1	3.7	4.1	3	4.4	2.9	4.5	
	<b>U.S.No. 5</b>	7.0	1	2.9	2.9	2.9	1	2.7	2.7	2.7	--	--	--	--	
	<b>U.S. Sample Grade</b>	N/A	5	9.4	2.7	19.7	--	--	--	--	1	2.4	2.4	2.4	
	<b>All lots</b>	N/A	1,334	3.2	0.9	19.7	2,051	3.0	0.8	4.1	1,789	3.2	1.1	4.5	
<b>Broken Corn</b>	<b>U.S.No. 1</b>	N/A	3	1.2	1.1	1.3	9	1.2	0.8	1.6	1	1.3	1.3	1.3	
	<b>U.S.No. 2</b>	N/A	115	2.0	1.1	2.4	276	1.9	0.5	2.5	203	2.1	1.1	2.4	
	<b>U.S.No. 3</b>	N/A	125	2.5	1.6	3.3	249	2.3	0.8	2.9	145	2.6	1.9	3.9	
	<b>U.S.No. 4</b>	N/A	2	1.9	1.9	2.0	--	--	--	--	--	--	--	--	
	<b>U.S.No. 5</b>	N/A	--	--	--	--	--	--	--	--	--	--	--	--	
	<b>U.S. Sample Grade</b>	N/A	3	8.1	3.3	13.0	--	--	--	--	--	--	--	--	
	<b>All lots</b>	N/A	248	2.3	1.1	13.0	534	2.1	0.5	2.9	349	2.4	1.1	3.9	
<b>Foreign Material</b>	<b>U.S.No. 1</b>	N/A	3	0.5	0.4	0.6	9	0.3	0.1	0.5	1	0.1	0.1	0.1	
	<b>U.S.No. 2</b>	N/A	115	0.7	0.3	1.0	276	0.7	0.3	2.2	203	0.7	0.2	1.2	
	<b>U.S.No. 3</b>	N/A	125	1.0	0.5	1.5	249	0.9	0.2	2.9	144	1.0	0.5	1.6	
	<b>U.S.No. 4</b>	N/A	2	1.1	1.1	1.2	--	--	--	--	--	--	--	--	
	<b>U.S.No. 5</b>	N/A	--	--	--	--	--	--	--	--	--	--	--	--	
	<b>U.S. Sample Grade</b>	N/A	3	3.6	1.4	6.7	--	--	--	--	--	--	--	--	
	<b>All lots</b>	N/A	248	0.9	0.3	6.7	534	0.8	0.1	2.9	348	0.8	0.1	1.6	

N/A = Does not apply.

-- = No lots reported in this category.

**Table 11. Summary of export White corn quality, 1994-96**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Test Weight (lb/bu)</b>	U.S. No. 1	56.0	9	59.2	56.9	61.2	7	59.9	58.4	62.6	8	58.6	57.3	60.6
	U.S. No. 2	54.0	31	58.7	56.5	60.2	31	59.2	57.1	60.6	31	58.0	56.3	59.5
	U.S. No. 3	52.0	2	58.4	57.8	58.5	1	60.3	60.3	60.3	2	59.2	58.2	59.8
	U.S. Sample Grade	N/A	--	--	--	--	1	56.3	56.3	56.3	--	--	--	--
	All lots	N/A	42	58.8	56.5	61.2	40	59.2	56.3	62.6	41	58.1	56.3	60.6
<b>Test Weight (kg/hl)</b>	U.S. No. 1	N/A	9	76.2	73.3	78.7	7	77.1	75.1	80.5	8	75.4	73.7	78.0
	U.S. No. 2	N/A	31	75.5	72.7	77.5	31	76.2	73.5	78.1	31	74.7	72.5	76.6
	U.S. No. 3	N/A	2	75.2	74.4	75.3	1	77.7	77.7	77.7	2	76.2	75.0	77.0
	U.S. Sample Grade	N/A	--	--	--	--	1	72.5	72.5	72.5	--	--	--	--
	All lots	N/A	42	75.7	72.7	78.7	40	76.3	72.5	80.5	41	74.8	72.5	78.0
<b>Moisture</b>	U.S. No. 1	N/A	9	13.7	11.8	14.0	7	13.7	13.3	14.1	8	13.9	13.0	14.5
	U.S. No. 2	N/A	31	13.7	13.0	14.5	31	13.8	13.3	14.4	31	14.1	13.4	14.7
	U.S. No. 3	N/A	2	13.6	13.6	13.8	1	12.3	12.3	12.3	2	13.2	12.8	13.4
	U.S. Sample Grade	N/A	--	--	--	--	1	13.9	13.9	13.9	--	--	--	--
	All lots	N/A	42	13.7	11.8	14.5	40	13.8	12.3	14.4	41	14.1	12.8	14.7
<b>Heat-damaged Kernels</b>	U.S. No. 1	0.1	9	0.0	0.0	0.0	7	0.0	0.0	0.0	8	0.0	0.0	0.0
	U.S. No. 2	0.2	31	0.0	0.0	0.0	31	0.0	0.0	0.0	31	0.0	0.0	0.0
	U.S. No. 3	0.5	2	0.0	0.0	0.0	1	0.0	0.0	0.0	2	0.0	0.0	0.0
	U.S. Sample Grade	N/A	--	--	--	--	1	0.0	0.0	0.0	--	--	--	--
	All lots	N/A	42	0.0	0.0	0.0	40	0.0	0.0	0.0	41	0.0	0.0	0.0
<b>Damaged Kernels (Total)</b>	U.S. No. 1	3.0	9	1.4	0.8	3.0	7	1.3	0.9	2.7	8	1.9	0.9	2.3
	U.S. No. 2	5.0	31	2.4	0.5	5.0	31	2.0	0.6	4.7	31	1.5	0.9	3.2
	U.S. No. 3	7.0	2	2.2	1.6	6.5	1	0.8	0.8	0.8	2	1.8	1.7	1.9
	U.S. Sample Grade	N/A	--	--	--	--	1	6.1	6.1	6.1	--	--	--	--
	All lots	N/A	42	2.1	0.5	6.5	40	1.9	0.6	6.1	41	1.6	0.9	3.2
<b>Broken Corn and Foreign Material</b>	U.S. No. 1	2.0	9	1.7	1.2	2.0	7	1.6	0.9	1.8	8	1.6	0.8	1.9
	U.S. No. 2	3.0	31	2.5	1.0	2.9	31	2.4	1.2	2.9	31	2.5	1.6	3.0
	U.S. No. 3	4.0	2	3.5	2.5	3.6	1	3.1	3.1	3.1	2	3.4	3.3	3.4
	U.S. Sample Grade	N/A	--	--	--	--	1	4.2	4.2	4.2	--	--	--	--
	All lots	N/A	42	2.3	1.0	3.6	40	2.3	0.9	4.2	41	2.4	0.8	3.4

continued

**Table 11. Summary of export White corn quality, 1994-96--Continued**

Factor	Grade	Grade Limit	1994			1995			1996					
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Broken Corn</b>	<b>U.S. No. 1</b>	N/A	--	--	--	--	--	--	--	--	2	1.5	1.5	1.5
	<b>U.S. No. 2</b>	N/A	6	2.2	1.4	2.3	4	1.2	0.8	2.1	2	1.4	1.1	1.5
	<b>U.S. No. 3</b>	N/A	--	--	--	--	--	--	--	--	--	--	--	--
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	--	--	--	--	--	--	--	--
	<b>All lots</b>	N/A	6	2.2	1.4	2.3	4	1.2	0.8	2.1	4	1.4	1.1	1.5
<b>Foreign Material</b>	<b>U.S. No. 1</b>	N/A	--	--	--	--	--	--	--	--	2	0.4	0.4	0.4
	<b>U.S. No. 2</b>	N/A	6	0.5	0.4	0.6	4	1.0	0.3	1.8	2	0.5	0.5	0.5
	<b>U.S. No. 3</b>	N/A	--	--	--	--	--	--	--	--	--	--	--	--
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	--	--	--	--	--	--	--	--
	<b>All lots</b>	N/A	6	0.5	0.4	0.6	4	1.0	0.3	1.8	4	0.5	0.4	0.5

N/A = Does not apply.

-- = No lots reported in this category.

## Export Soybeans

### Soybean Grades and Grade Requirements

There are two classes of soybeans: Yellow soybeans and Mixed soybeans. There are no soybean subclasses. The class Yellow soybeans is the class most commonly exported by the U.S. market. Each class is divided into four U.S. numerical grades and U.S. Sample grade.

Special grades are provided to emphasize special qualities or conditions affecting the value of the soybeans. These special grades are a part of the grade designation but do not affect the numerical or Sample grade designation.

### U.S. Standards for Soybeans

Grade	Minimum test weight per bushel (pounds)	Maximum limits of -				
		Damaged kernels		Foreign Material (percent)	Splits (percent)	Soybeans of other colors <sup>1</sup> (percent)
		Heat-damaged kernels (percent)	Total damaged kernels (percent)			
U.S.No. 1	56.0	0.2	2.0	1.0	10.0	1.0
U.S.No. 2	54.0	0.5	3.0	2.0	20.0	2.0
U.S.No. 3	52.0	1.0	5.0	3.0	30.0	5.0
U.S.No. 4	49.0	3.0	8.0	5.0	40.0	10.0
U.S. Sample grade						

U.S. Sample grade shall be soybeans which:

- (a) Do not meet the requirements for U.S. Nos. 1, 2, 3, or 4; or
- (b) Contain 4 or more stones which have an aggregate weight in excess of 0.1 percent of the sample weight, 1 or more pieces of broken glass, 3 or more crotalaria seeds, 2 or more castor beans, 4 or more particles of an unknown foreign substance(s) or a commonly recognized harmful or toxic foreign substance(s), 10 or more rodent pellets, bird droppings, or an equivalent quantity of other animal filth, 11 or more pieces of animal filth, castor beans, crotalaria seeds, glass, stones, or unknown foreign substance in combination, per 1,000 grams of soybeans; or
- (c) Have a musty, sour, or commercially objectionable foreign odor (except garlic odor); or
- (d) Are heating or otherwise of distinctly low quality.

<sup>1</sup> Does not apply to Mixed soybeans.

## Soybeans

### Definitions

**Test weight (lb/bu)** is pounds of grain per Winchester bushel.

**Test weight (kg/hl)** is the metric system equivalent to pounds per bushel. Kilograms per hectoliter are calculated by multiplying pounds per bushel by 1.287.

**Moisture** is the water content of grain as determined by an approved electronic moisture meter. The percentage of moisture in a sample does not affect the numerical grade.

**Splits** are soybeans with more than one-fourth of the bean removed and which are not damaged.

**Damaged kernels** are soybeans and pieces of soybeans which are badly ground-damaged, badly weather-damaged, diseased, frost-damaged, heat-damaged, insect-bored, mold-damaged, sprout damaged, stinkbug-stung, or otherwise materially damaged.

**Heat-damaged kernels** are soybeans and pieces of soybeans

which are materially discolored and damaged by heat.

**Foreign material** is all matter, including soybeans and pieces of soybeans, that will pass readily through an 8/64-inch sieve and all matter other than soybeans remaining on the sieve after sieving.

**Soybeans of other colors** are soybeans which have green, black, brown, or bicolored seed coats. Before September 9, 1985, this factor was called "brown, black, and/or bicolored soybeans in yellow or green soybeans."

**Mixed soybeans** is a combination of classes of soybeans which does not meet the minimum requirements of a specific class.

**Table 12. U.S. Soybean Exports: Number of lots and quantity exported by class and grade, 1994-96**

Grade	1994		1995		1996	
	Number of Lots	Metric Tons	Number of Lots	Metric Tons	Number of Lots	Metric Tons
U.S. No. 1	65	684,538	61	676,965	65	1,144,902
U.S. No. 2	788	15,794,211	970	21,351,393	996	22,305,476
U.S. No. 3	14	458,018	8	75,645	12	183,811
U.S. No. 4	--	--	2	1,351	--	--
U.S. Sample Grade	2	12,160	1	101	1	3,344
Not inspected	4	19,525	9	37,978	6	28,515
All lots	873	16,968,452	1,051	22,143,433	1,080	23,666,048

Not inspected = These lots were sold without grade designation.

**Table 13. Summary of export Soybean quality, 1994-96**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Test Weight (lb/bu)</b>	U.S. No. 1	56.0	65	56.7	56.0	58.2	61	56.6	56.1	58.0	65	56.5	56.0	58.4
	U.S. No. 2	54.0	788	56.4	54.4	58.4	970	56.1	54.2	59.9	996	56.2	54.1	58.1
	U.S. No. 3	52.0	14	56.2	54.3	57.2	8	55.4	54.0	57.9	12	55.8	54.0	57.3
	U.S. No. 4	49.0	--	--	--	--	2	56.2	55.5	56.9	--	--	--	--
	U.S. Sample Grade	N/A	2	51.8	51.2	52.2	1	56.5	56.5	56.5	1	52.2	52.2	52.2
	All lots	N/A	869	56.4	51.2	58.4	1,042	56.2	54.0	59.9	1,074	56.2	52.2	58.4
<b>Test Weight (kg/hl)</b>	U.S. No. 1	N/A	65	73.0	72.1	75.0	61	72.9	72.2	74.7	65	72.8	72.1	75.1
	U.S. No. 2	N/A	788	72.6	70.0	75.2	970	72.3	69.8	77.1	996	72.4	69.7	74.8
	U.S. No. 3	N/A	14	72.4	69.9	73.6	8	71.3	69.5	74.5	12	71.8	69.6	73.8
	U.S. No. 4	N/A	--	--	--	--	2	72.3	71.5	73.3	--	--	--	--
	U.S. Sample Grade	N/A	2	66.7	65.9	67.2	1	72.7	72.7	72.7	1	67.2	67.2	67.2
	All lots	N/A	869	72.6	65.9	75.2	1,042	72.3	69.5	77.1	1,074	72.4	67.2	75.1
<b>Moisture</b>	U.S. No. 1	N/A	65	12.1	11.2	13.7	61	12.1	10.9	13.2	65	11.9	10.8	13.4
	U.S. No. 2	N/A	788	12.6	10.6	14.0	970	12.2	9.6	14.1	996	12.2	9.8	14.0
	U.S. No. 3	N/A	14	13.0	12.2	13.9	8	13.1	12.2	13.5	12	12.4	10.4	13.5
	U.S. No. 4	N/A	--	--	--	--	2	11.9	11.8	12.0	--	--	--	--
	U.S. Sample Grade	N/A	2	11.5	11.2	12.0	1	11.1	11.1	11.1	1	12.7	12.7	12.7
	All lots	N/A	869	12.6	10.6	14.0	1,042	12.2	9.6	14.1	1,074	12.1	9.8	14.0
<b>Heat-damaged Kernels</b>	U.S. No. 1	0.2	65	0.0	0.0	0.1	61	0.0	0.0	0.1	65	0.0	0.0	0.1
	U.S. No. 2	0.5	788	0.1	0.0	0.5	970	0.1	0.0	0.5	996	0.1	0.0	0.5
	U.S. No. 3	1.0	14	0.2	0.0	0.4	8	0.1	0.0	0.7	12	0.2	0.0	0.2
	U.S. No. 4	3.0	--	--	--	--	2	0.0	0.0	0.1	--	--	--	--
	U.S. Sample Grade	N/A	2	0.1	0.1	0.1	1	0.0	0.0	0.0	1	1.4	1.4	1.4
	All lots	N/A	869	0.1	0.0	0.5	1,042	0.1	0.0	0.7	1,074	0.1	0.0	1.4
<b>Damaged Kernels (Total)</b>	U.S. No. 1	2.0	65	0.5	0.0	0.9	61	0.5	0.0	1.2	65	0.7	0.0	1.5
	U.S. No. 2	3.0	788	1.1	0.0	2.9	970	1.0	0.0	2.8	996	1.1	0.0	2.9
	U.S. No. 3	5.0	14	1.5	0.6	3.7	8	2.1	0.5	3.1	12	1.8	0.2	2.7
	U.S. No. 4	8.0	--	--	--	--	2	0.6	0.3	0.9	--	--	--	--
	U.S. Sample Grade	N/A	2	2.4	1.5	2.8	1	0.3	0.3	0.3	1	3.4	3.4	3.4
	All lots	N/A	869	1.1	0.0	3.7	1,042	1.0	0.0	3.1	1,074	1.1	0.0	3.4

continued

**Table 13. Summary of export Soybean quality, 1994-96--Continued**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Foreign Material</b>	<b>U.S.No. 1</b>	1.0	65	0.9	0.0	1.0	61	0.8	0.0	1.0	65	0.9	0.0	1.0
	<b>U.S.No. 2</b>	2.0	788	1.7	0.0	2.0	970	1.7	0.0	2.0	996	1.7	0.0	2.0
	<b>U.S.No. 3</b>	3.0	14	2.7	1.3	3.0	8	2.0	1.0	2.3	12	2.5	1.4	2.9
	<b>U.S.No. 4</b>	5.0	--	--	--	--	2	3.9	3.8	4.0	--	--	--	--
	<b>U.S. Sample Grade</b>	N/A	2	20.4	18.7	21.2	1	1.4	1.4	1.4	1	25.3	25.3	25.3
	<b>All lots</b>	N/A	869	1.7	0.0	21.2	1,042	1.7	0.0	4.0	1,074	1.7	0.0	25.3
<b>Splits</b>	<b>U.S.No. 1</b>	10.0	65	5.3	0.0	9.0	61	6.5	1.0	9.0	65	6.4	0.3	10.0
	<b>U.S.No. 2</b>	20.0	788	6.3	1.0	13.0	970	9.2	0.0	20.0	996	7.5	0.1	16.2
	<b>U.S.No. 3</b>	30.0	14	7.6	5.0	11.0	8	10.6	6.0	21.0	12	8.6	2.7	26.0
	<b>U.S.No. 4</b>	40.0	--	--	--	--	2	12.0	12.0	12.0	--	--	--	--
	<b>U.S. Sample Grade</b>	N/A	2	46.8	39.0	62.0	1	3.0	3.0	3.0	1	20.0	20.0	20.0
	<b>All lots</b>	N/A	869	6.3	0.0	62.0	1,042	9.1	0.0	21.0	1,074	7.4	0.1	26.0
<b>Soybeans of Other Colors</b>	<b>U.S.No. 1</b>	1.0	65	0.0	0.0	0.1	61	0.0	0.0	0.3	65	0.0	0.0	0.2
	<b>U.S.No. 2</b>	2.0	788	0.0	0.0	0.6	970	0.0	0.0	5.2	996	0.0	0.0	0.3
	<b>U.S.No. 3</b>	5.0	14	0.0	0.0	0.2	8	0.0	0.0	0.1	12	0.1	0.0	0.3
	<b>U.S.No. 4</b>	10.0	--	--	--	--	2	0.0	0.0	0.0	--	--	--	--
	<b>U.S. Sample Grade</b>	N/A	2	0.0	0.0	0.0	1	0.0	0.0	0.0	1	0.3	0.3	0.3
	<b>All lots</b>	N/A	869	0.0	0.0	0.6	1,042	0.0	0.0	5.2	1,074	0.0	0.0	0.3
<b>Protein (adjusted to 13% moisture)</b>	<b>U.S.No. 1</b>	N/A	42	36.0	34.7	38.6	56	35.5	34.3	39.6	45	35.2	34.3	38.8
	<b>U.S.No. 2</b>	N/A	442	35.5	32.6	39.2	598	35.2	33.8	38.9	555	35.1	33.0	37.7
	<b>U.S.No. 3</b>	N/A	9	35.4	34.7	36.0	2	36.1	35.8	38.7	6	35.2	34.2	35.8
	<b>U.S.No. 4</b>	N/A	--	--	--	--	2	34.9	34.1	35.7	--	--	--	--
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	1	34.4	34.4	34.4	--	--	--	--
	<b>All lots</b>	N/A	493	35.5	32.6	39.2	659	35.2	33.8	39.6	606	35.1	33.0	38.8
<b>Oil (adjusted to 13% moisture)</b>	<b>U.S.No. 1</b>	N/A	40	17.8	15.7	19.8	53	18.1	15.4	19.2	45	18.4	16.5	19.4
	<b>U.S.No. 2</b>	N/A	453	18.4	16.6	19.4	600	18.5	16.6	20.0	560	18.5	16.9	20.0
	<b>U.S.No. 3</b>	N/A	9	18.5	18.1	19.2	2	18.2	16.9	18.4	6	19.0	17.9	19.7
	<b>U.S.No. 4</b>	N/A	--	--	--	--	2	18.3	18.1	18.4	--	--	--	--
	<b>U.S. Sample Grade</b>	N/A	--	--	--	--	1	18.3	18.3	18.3	--	--	--	--
	<b>All lots</b>	N/A	502	18.4	15.7	19.8	658	18.5	15.4	20.0	611	18.5	16.5	20.0

N/A = Does not apply.

-- = No lots reported in this category.



## Other Grain Exports

### Sorghum

#### Sorghum Grades and Grade Requirements

Sorghum is divided into four classes: Sorghum, Tannin sorghum, White sorghum, and Mixed sorghum. There are no subclasses in sorghum. Each class is divided into four numerical grades and U.S. Sample grade. Special grades are

provided to emphasize special qualities or conditions affecting the value of sorghum. Special grades are added to and made a part of the grade designation. They do not affect the numerical or Sample grade designation.

#### U.S. Standards for Sorghum

Grade	Minimum test weight per bushel (pounds)	Maximum limits of-			
		Damaged kernels		Broken kernels and foreign material	
		Heat-damaged kernels (percent)	Total damaged kernels (percent)	Total (percent)	Foreign material
U.S.No. 1	57.0	0.2	2.0	4.0	1.5
U.S.No. 2	55.0	0.5	5.0	7.0	2.5
U.S.No. 3 <sup>1</sup>	53.0	1.0	10.0	10.0	3.5
U.S.No. 4	51.0	3.0	15.0	13.0	4.5
U.S. Sample grade					

U.S. Sample grade is sorghum that:

- (a) Does not meet the requirements for the grades U.S. Nos. 1, 2, 3, or 4; or
- (b) Contains 8 or more stones which have an aggregate weight in excess of 0.2 percent of the sample weight, 2 or more pieces of glass, 3 or more crotalaria seeds (*Crotalaria* spp.), 2 or more castor beans (*Ricinus communis* L.), 4 or more particles of an unknown foreign substance(s) or a commonly recognized harmful or toxic substance(s), 8 or more cockleburs (*Xanthium* spp.) or similar seeds singly or in combination, 10 or more rodent pellets, bird droppings, or equivalent quantity of other animal filth per 1,000 grams of sorghum; or
- (c) Has a musty, sour, or commercially objectionable foreign odor (except smut odor); or
- (d) Is badly weathered, heating, or of distinctly low quality.

<sup>1</sup> Sorghum which is distinctly discolored shall be graded not higher than U.S. No. 3.

## Sorghum

### Definitions

**Test weight (lb/bu)** is pounds of grain per Winchester bushel.

**Test weight (kg/hl)** is the metric system equivalent to pounds per bushel. Kilograms per hectoliter are calculated by multiplying pounds per bushel by 1.287.

**Heat-damaged kernels** are kernels, pieces of sorghum kernels, and other grains that are materially discolored and damaged by heat.

**Damaged kernels** are kernels, pieces of sorghum kernels, and other grains that are badly ground-damaged, badly weather-damaged, diseased, frost-damaged, germ-damaged, heat-damaged, insect-bored, mold-damaged, sprout-damaged, or otherwise materially damaged.

**Foreign material** is all matter except sorghum, which passes over the number 6 riddle and all matter other than sorghum that remains on the top of the 5/64 triangular-hole sieve.

**Broken kernels** consist of all matter which passes through a 5/64 triangular-hole sieve and over a 2.5/64 round-hole sieve.

**Broken kernels, foreign material, and other grains** consist of all matter, other than dockage, that passes through a 5/64 triangular-hole sieve and all matter other than sorghum that remains in the sieved sample.

**Dockage** is all matter other than sorghum that can be removed from the original sample by use of an approved device. Also, underdeveloped, shriveled, and small pieces of sorghum kernels removed in properly separating the material other than sorghum.

**Moisture** is the water content of grain as determined by an approved electronic moisture meter. The percentage of moisture in a sample does not affect the numerical grade.

**Mixed sorghum** is a combination of classes of sorghum which does not meet the minimum requirements of a specific class.

**Table 14. U.S. Sorghum Exports: Number of lots and quantity exported by class and grade, 1994-96**

Class	Grade	1994		1995		1996	
		Number of Lots	Metric Tons	Number of Lots	Metric Tons	Number of Lots	Metric Tons
Yellow Sorghum	U.S. No. 2	304	3,588,323	342	4,027,545	273	3,526,868
	U.S. No. 3	4	18,458	--	--	1	3,850
	All lots	308	3,606,781	342	4,027,545	274	3,530,718
All Classes	U.S. No. 2	304	3,588,323	342	4,027,545	273	3,526,868
	U.S. No. 3	4	18,458	--	--	1	3,850
	All lots	308	3,606,781	342	4,027,545	274	3,530,718

-- = No lots reported in this category.

**Table 15. Summary of export Sorghum quality, 1994-96**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
Test Weight (lb/bu)	U.S.No. 2	55.0	304	58.1	55.2	59.9	342	58.7	56.0	60.3	273	57.9	56.1	60.2
	U.S.No. 3	53.0	4	57.8	57.0	59.0	--	--	--	--	1	57.5	57.5	57.5
	All lots	N/A	308	58.1	55.2	59.9	342	58.7	56.0	60.3	274	57.9	56.1	60.2
Test Weight (kg/hl)	U.S.No. 2	N/A	304	74.8	71.1	77.1	342	75.6	72.1	77.6	273	74.6	72.2	77.5
	U.S.No. 3	N/A	4	74.4	73.4	76.0	--	--	--	--	1	74.0	74.0	74.0
	All lots	N/A	308	74.8	71.1	77.1	342	75.6	72.1	77.6	274	74.6	72.2	77.5
Moisture	U.S.No. 2	N/A	304	13.6	12.5	14.1	342	13.5	11.9	14.0	273	13.4	11.8	14.3
	U.S.No. 3	N/A	4	13.6	13.2	13.8	--	--	--	--	1	13.8	13.8	13.8
	All lots	N/A	308	13.6	12.5	14.1	342	13.5	11.9	14.0	274	13.4	11.8	14.3
Heat-damaged Kernels	U.S.No. 2	0.5	304	0.0	0.0	0.3	342	0.0	0.0	0.0	273	0.0	0.0	0.1
	U.S.No. 3	1.0	4	0.0	0.0	0.0	--	--	--	--	1	0.0	0.0	0.0
	All lots	N/A	308	0.0	0.0	0.3	342	0.0	0.0	0.0	274	0.0	0.0	0.1
Damaged Kernels (Total)	U.S.No. 2	5.0	304	1.9	0.2	4.7	342	1.0	0.1	3.8	273	1.0	0.1	2.8
	U.S.No. 3	10.0	4	4.6	1.4	7.4	--	--	--	--	1	0.7	0.7	0.7
	All lots	N/A	308	1.9	0.2	7.4	342	1.0	0.1	3.8	274	1.0	0.1	2.8
Broken Kernels and Foreign Material	U.S.No. 2	7.0	304	4.8	0.6	6.9	342	4.2	0.8	6.4	273	4.3	2.6	6.7
	U.S.No. 3	10.0	4	6.1	5.3	7.5	--	--	--	--	1	5.9	5.9	5.9
	All lots	N/A	308	4.8	0.6	7.5	342	4.2	0.8	6.4	274	4.3	2.6	6.7
Broken Kernels	U.S.No. 2	N/A	81	3.5	2.4	4.8	47	3.1	1.8	4.1	34	2.8	1.7	4.2
	U.S.No. 3	N/A	2	5.5	5.4	5.5	--	--	--	--	1	3.2	3.2	3.2
	All lots	N/A	83	3.5	2.4	5.5	47	3.1	1.8	4.1	35	2.8	1.7	4.2
Foreign Material	U.S.No. 2	N/A	304	1.5	0.0	2.4	342	1.4	0.0	2.4	273	1.3	0.0	2.3
	U.S.No. 3	N/A	4	1.9	1.4	2.4	--	--	--	--	1	2.7	2.7	2.7
	All lots	N/A	308	1.5	0.0	2.4	342	1.4	0.0	2.4	274	1.3	0.0	2.7
Dockage	U.S.No. 2	N/A	304	0.2	0.0	0.6	342	0.2	0.0	0.8	273	0.2	0.0	0.7
	U.S.No. 3	N/A	4	0.4	0.3	0.5	--	--	--	--	1	0.0	0.0	0.0
	All lots	N/A	308	0.2	0.0	0.6	342	0.2	0.0	0.8	274	0.2	0.0	0.7

N/A = Does not apply.  
 -- = No lots reported in this category.

# Barley

## Barley Grades and Grade Requirements

Barley is divided into three classes based on kernel characteristics: Six-rowed barley, Two-rowed barley, and Barley. The class Barley has no subclasses. Six-rowed barley is divided into 3 subclasses and Two-Rowed barley is divided into 2 subclasses. Six-rowed Malting barley is divided into three numerical grades. All classes of barley not

designated as "malting" are examined for quality under the standards for Barley. Special grades are provided to emphasize special qualities or conditions affecting the value of barley and are added to and made a part of the grade designation. They do not affect the numerical or Sample grade designation.

### Grades and grade requirements for the subclasses Six-rowed Malting barley and Six-rowed Blue Malting barley

Grade	Minimum limits of -			Maximum limits of -				
	Test weight per bushel (pounds)	Suitable malting type (percent)	Sound barley <sup>1</sup> (percent)	Damaged kernels <sup>1</sup> (percent)	Foreign Material (percent)	Other grains (percent)	Skinned and broken kernels (percent)	Thin barley (percent)
U.S.No. 1	47.0	95.0	97.0	2.0	1.0	2.0	4.0	7.0
U.S.No. 2	45.0	95.0	94.0	3.0	2.0	3.0	6.0	10.0
U.S.No. 3	43.0	95.0	90.0	4.0	3.0	5.0	8.0	15.0

<sup>1</sup> Injured-by-frost kernels and injured-by-mold kernels are not considered damaged kernels or scored against sound barley.

NOTE: Six-rowed barley that meets the requirements of U.S. No. 1 to U.S. No. 3, inclusive, for the subclasses Six-rowed Malting barley and Six-rowed Blue Malting barley is classified and graded according to the requirements in this section. Otherwise, it will be graded according to the requirements in the table for Six-rowed barley, Two-rowed barley, and Barley.

### Grades and grade requirements for the subclass Two-rowed Malting barley

Grade	Minimum limits of -			Maximum limits of -			
	Test weight per bushel (pounds)	Suitable malting type (percent)	Sound barley <sup>1</sup> (percent)	Wild Oats (percent)	Foreign Material (percent)	Skinned and broken kernels (percent)	Thin barley (percent)
U.S.No. 1 Choice	50.0	97.0	98.0	1.0	0.5	5.0	5.0
U.S.No. 1	48.0	97.0	98.0	1.0	0.5	7.0	7.0
U.S.No. 2	48.0	95.0	96.0	2.0	1.0	10.0	10.0
U.S.No. 3	48.0	95.0	93.0	3.0	2.0	10.0	10.0

<sup>1</sup> Injured-by-frost kernels and injured-by-mold kernels are not scored against sound barley.

NOTE: Two-rowed barley that meets the requirements of U.S. No. 1 Choice to U.S. No. 3, inclusive, for the subclass Two-rowed Malting barley is classified and graded according to the requirements in this section. Otherwise, it will be graded according to the requirements in the table for Six-rowed barley, Two-rowed barley, and Barley.

**Grades and grade requirements for the subclasses Six-rowed barley, Two-rowed barley and the class Barley**

Grade	Minimum limits of -		Maximum limits of -				
	Test weight per bushel (pounds)	Sound barley (percent)	Damaged kernels <sup>1</sup> (percent)	Heat-damaged kernels (percent)	Foreign Material (percent)	Broken kernels (percent)	Thin barley (percent)
U.S.No. 1	47.0	97.0	2.0	0.2	1.0	4.0	10.0
U.S.No. 2	45.0	94.0	4.0	0.3	2.0	8.0	15.0
U.S.No. 3	43.0	90.0	6.0	0.5	3.0	12.0	25.0
U.S.No. 4 <sup>2</sup>	40.0	85.0	8.0	1.0	4.0	18.0	35.0
U.S.No. 5	36.0	75.0	10.0	3.0	5.0	28.0	75.0
U.S. Sample Grade							

U.S. Sample grade shall be barley that:

- (a) Does not meet the requirements for the grades U.S. No. 1, 2, 3, 4, or 5; or
- (b) Contains 8 or more stones or any number of stones which have an aggregate weight in excess of 0.2 percent of the sample weight, 2 or more pieces of glass, 3 or more crotalaria seeds (*Crotalaria* spp.), 2 or more castor beans (*Ricinus communis* L.), 4 or more particles of an unknown foreign substance(s) or a commonly recognized harmful or toxic substance(s), 8 or more cocklebur (*Xanthium* spp.) or similar seeds singly or in combination, 10 or more rodent pellets, bird droppings, or equivalent quantity of other animal filth per 1-1/8 to 1-1/4 quarts of barley; or
- (c) Has a musty, sour, or commercially objectionable foreign odor (except smut or garlic odor); or
- (d) Is heating or otherwise of distinctly low quality.

1 Includes heat-damaged kernels. Injured-by-frost kernels and injured-by-mold kernels are not considered damaged kernels.  
 2 Barley that is badly stained or materially weathered shall be graded not higher than U.S. No. 4.

## Barley

### Definitions

**Test weight (lb/bu)** is pounds of grain per Winchester bushel.

**Test weight (kg/hl)** is the metric system equivalent to pounds per bushel. Kilograms per hectoliter are calculated by multiplying pounds per bushel by 1.287.

**Heat-damaged kernels** are kernels and pieces of barley kernels, other grains, and wild oats that are materially discolored and damaged by heat.

**Damaged kernels** are kernels, pieces of barley kernels, other grains, and wild oats that are badly ground-damaged, badly weather-damaged, diseased, frost-damaged, germ-damaged, heat-damaged, injured-by-heat, insect-bored, mold-damaged, sprout-damaged, or otherwise materially damaged.

**Foreign material** is all matter other than barley, other grains, and wild oats that remains in the sample after removal of dockage.

**Skinned and broken kernels** are barley kernels that have one-third or more of the hull removed, or that the hull is loose or missing over the germ, or broken kernels, or whole kernels that have a part or all of the germ missing.

**Dockage** is all matter other than barley that can be removed from the original sample by use of an approved device. Also,

underdeveloped, shriveled, and small pieces of barley kernels removed by properly separating the material other than barley and that cannot be recovered by properly rescreening or recleaning.

**Moisture** is the water content of grain as determined by an approved electronic moisture meter. The percentage of moisture in a sample does not affect the numerical grade.

**Suitable malting type** refers to varieties of malting barley that are recommended by the American Malting Barley Association as being suitable for malting purposes.

**Sound barley** is kernels and pieces of barley kernels that are not damaged.

**Thin barley** is Six-rowed barley which passes through a  $5/64 \times 3/4$  slotted-hole sieve and Two-rowed barley which passes through a  $5.5/64 \times 3/4$  slotted-hole sieve.

**Table 16. U.S. Barley Exports: Number of lots and quantity exported by class and grade, 1994-96**

Class	Grade	1994		1995		1996	
		Number of Lots	Metric Tons	Number of Lots	Metric Tons	Number of Lots	Metric Tons
<b>Barley</b>	<b>U.S. No. 1</b>	2	9,961	--	--	1	7,509
	<b>U.S. No. 2</b>	98	1,318,014	68	1,224,442	34	615,306
	<b>U.S. No. 3</b>	5	117,436	1	5,250	3	81,562
	<b>U.S. No. 5</b>	--	--	--	--	1	4,487
	<b>All lots</b>	105	1,445,411	69	1,229,692	39	708,864
<b>Six-rowed* barley</b>	<b>U.S. No. 1</b>	1	5,874	2	15,956	--	--
	<b>U.S. No. 2</b>	4	44,954	--	--	1	2,191
	<b>U.S. No. 3</b>	1	9,472	2	77,682	3	20,768
	<b>All lots</b>	6	60,300	4	93,638	4	22,959
<b>Two-rowed* barley</b>	<b>U.S. No. 2</b>	--	--	2	5,356	--	--
	<b>U.S. No. 3</b>	--	--	--	--	3	8,718
	<b>All lots</b>	--	--	2	5,356	3	8,718
<b>All Classes</b>	<b>U.S. No. 1</b>	3	15,835	2	15,956	1	7,509
	<b>U.S. No. 2</b>	102	1,362,968	70	1,229,798	35	617,497
	<b>U.S. No. 3</b>	6	126,908	3	82,932	9	111,048
	<b>U.S. No. 5</b>	--	--	--	--	1	4,487
	<b>All lots</b>	111	1,505,711	75	1,328,686	46	740,541

-- = No lots reported in this category.

\* = Factor results for Six-Rowed and Two-Rowed barley are available from GIPSA, upon request.

**Table 17. Summary of export Barley quality, 1994-96**

Factor	Grade	1994					1995				1996			
		Grade Limit	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Test Weight (lb/bu)</b>	<b>U.S.No. 1</b>	47.0	2	54.1	54.0	54.3	--	--	--	--	1	52.4	52.4	52.4
	<b>U.S.No. 2</b>	45.0	98	47.8	45.4	51.7	68	49.5	46.0	56.5	34	50.1	46.6	55.4
	<b>U.S.No. 3</b>	43.0	5	49.2	47.0	56.3	1	52.0	52.0	52.0	3	48.4	45.7	49.9
	<b>U.S.No. 5</b>	40.0	--	--	--	--	--	--	--	--	1	42.9	42.9	42.9
	<b>All lots</b>	N/A	105	48.0	45.4	56.3	69	49.5	46.0	56.5	39	49.9	42.9	55.4
<b>Test Weight (kg/hl)</b>	<b>U.S.No. 1</b>	N/A	2	69.7	69.5	69.9	--	--	--	--	1	67.4	67.4	67.4
	<b>U.S.No. 2</b>	N/A	98	61.6	58.5	66.5	68	63.7	59.2	72.7	34	64.5	60.0	71.3
	<b>U.S.No. 3</b>	N/A	5	63.3	60.5	72.4	1	67.0	67.0	67.0	3	62.3	58.8	64.3
	<b>U.S.No. 5</b>	N/A	--	--	--	--	--	--	--	--	1	55.3	55.3	55.3
	<b>All lots</b>	N/A	105	61.8	58.5	72.4	69	63.8	59.2	72.7	39	64.2	55.3	71.3
<b>Moisture</b>	<b>U.S.No. 1</b>	N/A	2	13.3	13.2	13.4	--	--	--	--	1	13.0	13.0	13.0
	<b>U.S.No. 2</b>	N/A	98	13.5	11.0	14.0	68	12.0	8.1	14.3	34	12.2	9.6	14.0
	<b>U.S.No. 3</b>	N/A	5	12.2	9.8	13.6	1	11.2	11.2	11.2	3	12.1	11.3	13.4
	<b>U.S.No. 5</b>	N/A	--	--	--	--	--	--	--	--	1	14.4	14.4	14.4
	<b>All lots</b>	N/A	105	13.4	9.8	14.0	69	12.0	8.1	14.3	39	12.2	9.6	14.4
<b>Heat-damaged Kernels</b>	<b>U.S.No. 1</b>	0.2	2	0.0	0.0	0.0	--	--	--	--	1	0.0	0.0	0.0
	<b>U.S.No. 2</b>	0.3	98	0.0	0.0	0.0	68	0.0	0.0	0.0	34	0.0	0.0	0.0
	<b>U.S.No. 3</b>	0.5	5	0.0	0.0	0.0	1	0.0	0.0	0.0	3	0.0	0.0	0.0
	<b>U.S.No. 5</b>	3.0	--	--	--	--	--	--	--	--	1	0.0	0.0	0.0
	<b>All lots</b>	N/A	105	0.0	0.0	0.0	69	0.0	0.0	0.0	39	0.0	0.0	0.0
<b>Damaged Kernels (Total)</b>	<b>U.S.No. 1</b>	2.0	2	0.0	0.0	0.0	--	--	--	--	1	0.0	0.0	0.0
	<b>U.S.No. 2</b>	4.0	98	0.8	0.0	2.6	68	0.9	0.0	3.2	34	1.0	0.0	3.2
	<b>U.S.No. 3</b>	6.0	5	0.3	0.0	0.4	1	0.9	0.9	0.9	3	0.4	0.4	0.6
	<b>U.S.No. 5</b>	10.0	--	--	--	--	--	--	--	--	1	3.3	3.3	3.3
	<b>All lots</b>	N/A	105	0.8	0.0	2.6	69	0.9	0.0	3.2	39	1.0	0.0	3.3
<b>Foreign Material</b>	<b>U.S.No. 1</b>	1.0	2	0.0	0.0	0.0	--	--	--	--	1	0.0	0.0	0.0
	<b>U.S.No. 2</b>	2.0	98	0.1	0.0	0.4	68	0.1	0.0	0.4	34	0.1	0.0	0.4
	<b>U.S.No. 3</b>	3.0	5	0.1	0.0	0.2	1	0.0	0.0	0.0	3	0.1	0.1	0.2
	<b>U.S.No. 5</b>	5.0	--	--	--	--	--	--	--	--	1	0.5	0.5	0.5
	<b>All lots</b>	N/A	105	0.1	0.0	0.4	69	0.1	0.0	0.4	39	0.1	0.0	0.5
<b>Sound Barley</b>	<b>U.S.No. 1</b>	97.0	2	99.6	99.6	99.6	--	--	--	--	1	99.6	99.6	99.6
	<b>U.S.No. 2</b>	94.0	98	97.1	94.5	99.5	68	97.0	94.6	98.9	34	96.6	94.8	99.9
	<b>U.S.No. 3</b>	90.0	5	98.2	96.6	99.8	1	97.0	97.0	97.0	3	97.8	97.5	98.5
	<b>U.S.No. 5</b>	75.0	--	--	--	--	--	--	--	--	1	86.6	86.6	86.6
	<b>All lots</b>	N/A	105	97.2	94.5	99.8	69	97.0	94.6	98.9	39	96.7	86.6	99.9

N/A = Does not apply.

continued



**Table 17. Summary of export Barley quality, 1994-96, continued**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Thin Barley</b>	<b>U.S. No. 1</b>	10.0	2	1.3	1.0	1.8	--	--	--	--	1	1.7	1.7	1.7
	<b>U.S. No. 2</b>	15.0	98	7.9	3.5	13.3	68	7.5	2.9	13.8	34	6.8	3.5	13.5
	<b>U.S. No. 3</b>	25.0	5	8.3	1.0	18.7	1	3.0	3.0	3.0	3	9.9	9.0	11.8
	<b>U.S. No. 5</b>	75.0	--	--	--	--	--	--	--	--	1	56.3	56.3	56.3
	<b>All lots</b>	N/A	105	7.9	1.0	18.7	69	7.5	2.9	13.8	39	7.4	1.7	56.3
<b>Broken Kernels</b>	<b>U.S. No. 1</b>	4.0	2	0.5	0.4	0.5	--	--	--	--	1	0.2	0.2	0.2
	<b>U.S. No. 2</b>	8.0	98	0.6	0.1	1.1	68	0.7	0.2	1.8	34	0.8	0.0	1.5
	<b>U.S. No. 3</b>	12.0	5	0.6	0.0	1.5	1	0.6	0.6	0.6	3	0.7	0.2	1.0
	<b>U.S. No. 5</b>	28.0	--	--	--	--	--	--	--	--	1	0.7	0.7	0.7
	<b>All lots</b>	N/A	105	0.6	0.0	1.5	69	0.7	0.2	1.8	39	0.8	0.0	1.5
<b>Dockage</b>	<b>U.S. No. 1</b>	N/A	2	0.2	0.2	0.2	--	--	--	--	1	0.4	0.4	0.4
	<b>U.S. No. 2</b>	N/A	98	1.4	0.6	2.0	68	1.5	0.7	3.9	34	1.3	0.4	1.9
	<b>U.S. No. 3</b>	N/A	5	1.0	0.1	1.6	1	1.0	1.0	1.0	3	1.6	0.8	1.9
	<b>U.S. No. 5</b>	N/A	--	--	--	--	--	--	--	--	1	6.2	6.2	6.2
	<b>All lots</b>	N/A	105	1.4	0.1	2.0	69	1.5	0.7	3.9	39	1.3	0.4	6.2

N/A = Does not apply.

**Table 18. Summary of export Six-rowed barley quality, 1994-96**

Factor	Grade	1994					1995				1996			
		Grade Limit	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Test Weight (lb/bu)</b>	<b>U.S. No. 1</b>	47.0	1	54.7	54.7	54.7	2	53.4	53.4	53.5	--	--	--	--
	<b>U.S. No. 2</b>	45.0	4	47.8	47.0	48.6	--	--	--	--	1	46.3	46.3	46.3
	<b>U.S. No. 3</b>	43.0	1	53.1	53.1	53.1	2	49.2	49.0	49.5	3	53.1	52.5	53.5
	<b>All lots</b>	N/A	6	49.3	47.0	54.7	4	49.9	49.0	53.5	4	52.4	46.3	53.5
<b>Test Weight (kg/hl)</b>	<b>U.S. No. 1</b>	N/A	1	70.4	70.4	70.4	2	68.8	68.8	68.9	--	--	--	--
	<b>U.S. No. 2</b>	N/A	4	61.5	60.5	62.6	--	--	--	--	1	59.6	59.6	59.6
	<b>U.S. No. 3</b>	N/A	1	68.3	68.3	68.3	2	63.3	63.0	63.7	3	68.3	67.5	68.9
	<b>All lots</b>	N/A	6	63.5	60.5	70.4	4	64.3	63.0	68.9	4	67.5	59.6	68.9
<b>Moisture</b>	<b>U.S. No. 1</b>	N/A	1	13.2	13.2	13.2	2	13.1	13.1	13.1	--	--	--	--
	<b>U.S. No. 2</b>	N/A	4	13.3	13.2	13.4	--	--	--	--	1	13.8	13.8	13.8
	<b>U.S. No. 3</b>	N/A	1	13.0	13.0	13.0	2	13.8	13.8	13.9	3	13.0	12.9	13.2
	<b>All lots</b>	N/A	6	13.2	13.0	13.4	4	13.7	13.1	13.9	4	13.1	12.9	13.8
<b>Heat-damaged Kernels</b>	<b>U.S. No. 1</b>	0.2	1	0.0	0.0	0.0	2	0.0	0.0	0.0	--	--	--	--
	<b>U.S. No. 2</b>	0.3	4	0.0	0.0	0.0	--	--	--	--	1	0.0	0.0	0.0
	<b>U.S. No. 3</b>	0.5	1	0.0	0.0	0.0	2	0.0	0.0	0.0	3	0.0	0.0	0.0
	<b>All lots</b>	N/A	6	0.0	0.0	0.0	4	0.0	0.0	0.0	4	0.0	0.0	0.0
<b>Damaged Kernels (Total)</b>	<b>U.S. No. 1</b>	2.0	1	0.2	0.2	0.2	2	0.2	0.2	0.2	--	--	--	--
	<b>U.S. No. 2</b>	4.0	4	0.7	0.4	1.7	--	--	--	--	1	0.8	0.8	0.8
	<b>U.S. No. 3</b>	6.0	1	0.0	0.0	0.0	2	0.3	0.3	0.4	3	0.0	0.0	0.0
	<b>All lots</b>	N/A	6	0.6	0.0	1.7	4	0.3	0.2	0.4	4	0.1	0.0	0.8
<b>Foreign Material</b>	<b>U.S. No. 1</b>	1.0	1	0.0	0.0	0.0	2	0.0	0.0	0.1	--	--	--	--
	<b>U.S. No. 2</b>	2.0	4	0.2	0.1	0.3	--	--	--	--	1	0.3	0.3	0.3
	<b>U.S. No. 3</b>	3.0	1	0.0	0.0	0.0	2	0.1	0.0	0.1	3	0.0	0.0	0.0
	<b>All lots</b>	N/A	6	0.1	0.0	0.3	4	0.1	0.0	0.1	4	0.0	0.0	0.3
<b>Sound Barley</b>	<b>U.S. No. 1</b>	97.0	1	99.5	99.5	99.5	2	99.0	98.9	99.1	--	--	--	--
	<b>U.S. No. 2</b>	94.0	4	97.0	94.1	98.6	--	--	--	--	1	98.7	98.7	98.7
	<b>U.S. No. 3</b>	90.0	1	99.1	99.1	99.1	2	98.7	98.7	98.7	3	97.1	90.0	99.7
	<b>All lots</b>	N/A	6	97.6	94.1	99.5	4	98.8	98.7	99.1	4	97.3	90.0	99.7
<b>Thin Barley</b>	<b>U.S. No. 1</b>	10.0	1	0.9	0.9	0.9	2	0.8	0.7	0.9	--	--	--	--
	<b>U.S. No. 2</b>	15.0	4	8.7	7.5	9.0	--	--	--	--	1	8.3	8.3	8.3
	<b>U.S. No. 3</b>	25.0	1	0.7	0.7	0.7	2	3.9	3.4	4.2	3	0.8	0.6	1.0
	<b>All lots</b>	N/A	6	6.7	0.7	9.0	4	3.4	0.7	4.2	4	1.5	0.6	8.3

continued

**Table 18. Summary of export Six-rowed barley quality, 1994-96-- Continued**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
<b>Broken Kernels</b>	<b>U.S. No. 1</b>	4.0	1	0.5	0.5	0.5	2	0.1	0.0	0.2	--	--	--	--
	<b>U.S. No. 2</b>	8.0	4	0.5	0.3	0.7	--	--	--	--	1	0.4	0.4	0.4
	<b>U.S. No. 3</b>	12.0	1	0.0	0.0	0.0	2	0.0	0.0	0.0	3	0.0	0.0	0.0
	<b>All lots</b>	N/A	6	0.4	0.0	0.7	4	0.0	0.0	0.2	4	0.0	0.0	0.4
<b>Dockage</b>	<b>U.S. No. 1</b>	N/A	1	0.1	0.1	0.1	2	0.2	0.2	0.3	--	--	--	--
	<b>U.S. No. 2</b>	N/A	4	1.5	1.1	2.5	--	--	--	--	1	0.6	0.6	0.6
	<b>U.S. No. 3</b>	N/A	1	0.1	0.1	0.1	2	0.8	0.7	1.0	3	0.2	0.1	0.3
	<b>All lots</b>	N/A	6	1.1	0.1	2.5	4	0.7	0.2	1.0	4	0.3	0.1	0.6

N/A = Does not apply.

-- = No lots reported in this category.

## Sunflower Seeds

### Sunflower Seed Grades and Grade Requirements

There are no classes or subclasses in sunflower seed. Sunflower seed is divided into two U.S. numerical grades and U.S. Sample grade. One special grade is provided to emphasize a special condition affecting the value of sunflower seed and is added to and made a part of the grade designation. The special grade does not affect the numerical or Sample grade designation.

### U.S. Standards for Sunflower Seeds

Grade	Minimum test weight per bushel (pounds)	Maximum limits of--		
		Damaged Sunflower Seed		Dehulled seed
		Heat damaged (percent)	Total (percent)	
U.S. No. 1	25.0	0.5	5.0	5.0
U.S. No. 2	25.0	1.0	10.0	5.0
U.S. Sample Grade				

U.S. Sample grade is sunflower seed that:

- (a) Does not meet the requirements for the grades U.S. Nos. 1 or 2; or
- (b) Contains 8 or more stones which have an aggregate weight in excess of 0.20 percent of the sample weight, 2 or more pieces of glass, 3 or more crotalaria seeds (*Crotalaria* spp.), 2 or more castor beans (*Ricinus communis* L.), 4 or more particles of an unknown foreign substance(s), or a commonly recognized harmful or toxic substance(s), 10 or more rodent pellets, bird droppings, or equivalent quantity of other animal filth per 600 grams of sunflower seed; or
- (c) Has a musty, sour or commercially objectionable foreign odor; or
- (d) Is heating or otherwise of distinctly low quality.

### Definitions

**Test weight (lb/bu)** is pounds of grain per Winchester bushel.

**Test weight (kg/hl)** is the metric system equivalent to pounds per bushel. Kilograms per hectoliter are calculated by multiplying pounds per bushel by 1.287.

**Heat-damaged sunflower seeds** are seeds and pieces of sunflower seed that are materially discolored and damaged by heat.

**Damaged sunflower seed** is seed and pieces of sunflower seed that are badly ground-damaged, badly weather-damaged, diseased, frost-damaged, heat-damaged, mold-damaged, sprout-damaged, or otherwise materially damaged.

**Dehulled seed** is sunflower seed that has the hull completely removed from the sunflower kernel.

**Foreign material** is all matter other than whole sunflower seeds containing kernels that can be removed from the original sample by use of an approved device and by handpicking a portion of the sample.

**Admixture** consists of all material other than sunflower seed which can be removed from a test portion by handsieving and handpicking. Empty hulls and parts of seed are considered sunflower seed.

**Moisture** is the water content of grain as determined by an approved electronic moisture meter. The percentage of moisture in a sample does not affect the numerical grade.

**Table 19. U.S. Sunflower Seed Exports: Number of lots and quantity exported by class and grade, 1994-96**

	1994		1995		1996	
	Number of Lots	Metric Tons	Number of Lots	Metric Tons	Number of Lots	Metric Tons
U.S.No. 1	10	101,202	13	123,857	--	--
U.S.No. 2	--	--	13	131,589	--	--
All lots	10	101,202	26	255,446	--	--

-- = No lots reported in this category.

**Table 20. Summary of export Sunflower Seed quality, 1994-96**

Factor	Grade	Grade Limit	1994			1995				1996				
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
Test Weight (lb/bu)	U.S.No. 1	25.0	10	29.9	29.5	30.4	13	30.1	28.9	30.8	--	--	--	--
	U.S.No. 2	25.0	--	--	--	--	13	29.6	28.2	30.2	--	--	--	--
	All lots	N/A	10	29.9	29.5	30.4	26	29.8	28.2	30.8	--	--	--	--
Test Weight (kg/hl)	U.S.No. 1	N/A	10	38.5	38.0	39.1	13	38.7	37.1	39.7	--	--	--	--
	U.S.No. 2	N/A	--	--	--	--	13	38.0	36.3	38.9	--	--	--	--
	All lots	N/A	10	38.5	38.0	39.1	26	38.4	36.3	39.7	--	--	--	--
Moisture	U.S.No. 1	N/A	10	9.6	9.5	10.1	13	9.1	8.4	9.9	--	--	--	--
	U.S.No. 2	N/A	--	--	--	--	13	9.0	8.4	9.7	--	--	--	--
	All lots	N/A	10	9.6	9.5	10.1	26	9.0	8.4	9.9	--	--	--	--
Heat-damaged Sunflower Seed	U.S.No. 1	0.5	10	0.0	0.0	0.1	13	0.0	0.0	0.2	--	--	--	--
	U.S.No. 2	1.0	--	--	--	--	13	0.0	0.0	0.3	--	--	--	--
	All lots	N/A	10	0.0	0.0	0.1	26	0.0	0.0	0.3	--	--	--	--
Damaged Sunflower Seed (Total)	U.S.No. 1	5.0	10	0.3	0.2	0.6	13	0.4	0.2	1.5	--	--	--	--
	U.S.No. 2	10.0	--	--	--	--	13	0.4	0.2	1.4	--	--	--	--
	All lots	N/A	10	0.3	0.2	0.6	26	0.4	0.2	1.5	--	--	--	--
Foreign Material	U.S.No. 1	N/A	10	0.0	0.0	0.0	13	0.0	0.0	0.0	--	--	--	--
	U.S.No. 2	N/A	--	--	--	--	13	0.0	0.0	0.0	--	--	--	--
	All lots	N/A	10	0.0	0.0	0.0	26	0.0	0.0	0.0	--	--	--	--
Dehulled Seed	U.S.No. 1	5.0	10	1.8	1.3	2.2	13	1.7	1.0	3.1	--	--	--	--
	U.S.No. 2	5.0	--	--	--	--	13	2.6	1.2	4.3	--	--	--	--
	All lots	N/A	10	1.8	1.3	2.2	26	2.2	1.0	4.3	--	--	--	--
Admixture	U.S.No. 1	N/A	10	3.6	3.2	4.0	13	3.6	3.1	4.0	--	--	--	--
	U.S.No. 2	N/A	--	--	--	--	13	3.7	0.0	4.0	--	--	--	--
	All lots	N/A	10	3.6	3.2	4.0	26	3.7	0.0	4.0	--	--	--	--

N/A = Does not apply.

-- = No lots reported in this category.

# Oats

## Oat Grades and Grade Requirements

There are no classes or subclasses in oats. Oats are divided into four numerical grades and U.S. Sample grade. Special grades are provided to emphasize special qualities or

conditions affecting the value of the oats and are added to and made a part of the grade designation. Special grades do not affect the numerical or Sample grade designation.

## U.S. Standards for Oats

Grade	Minimum limits of -		Maximum limits of -		
	Test weight per bushel (pounds)	Sound Oats (percent)	Heat damaged kernels (percent)	Foreign material (percent)	Wild Oats (percent)
U.S. No. 1	36.0	97.0	0.1	2.0	2.0
U.S. No. 2	33.0	94.0	0.3	3.0	3.0
U.S. No. 3 <sup>1</sup>	30.0	90.0	1.0	4.0	5.0
U.S. No. 4 <sup>2</sup>	27.0	80.0	3.0	5.0	10.0
U.S. Sample grade					

U.S. Sample grade are oats which:

- (a) Do not meet the requirements for the grades U.S. Nos. 1, 2, 3, or 4; or
- (b) Contain 8 or more stones which have an aggregate weight in excess of 0.2 percent of the sample weight, 2 or more pieces of glass, 3 or more crotalaria seeds (*Crotalaria* spp.), 2 or more castor beans (*Ricinus communis* L.) 4 or more particles of an unknown foreign substance(s) or a commonly recognized harmful or toxic foreign substance(s), 8 or more cocklebur (*Xanthium* spp.) or similar seeds singly or in combination, 10 or more rodent pellets, bird droppings, or an equivalent quantity of other animal filth per 1-1/8 to 1-1/4 quarts of oats; or
- (c) Have a musty, sour, or commercially objectionable foreign odor (except smut or garlic odor); or
- (d) Are heating or otherwise of distinctly low quality.

1 Oats that are slightly weathered shall be graded not higher than U.S. No. 3.

2 Oats that are badly stained or materially weathered shall be graded not higher than U.S. No. 4.

## Oats

### Definitions

**Test weight (lb/bu)** is pounds of grain per Winchester bushel.

**Test weight (kg/hl)** is the metric system equivalent to pounds per bushel. Kilograms per hectoliter are calculated by multiplying pounds per bushel by 1.287.

**Heat-damaged kernels** are kernels and pieces of oat kernels, other grains, and wild oats that are materially discolored and damaged by heat.

**Foreign material** is all matter other than oats, wild oats, and other grains.

**Fine seeds** are all matter that passes through a 5/64 triangular-hole sieve.

**Sound oats** are kernels and pieces of oat kernels (except wild oats) that are not badly ground-damaged, badly weather-damaged, diseased, frost-damaged, germ-damaged, heat-damaged, insect-bored, mold-damaged, sprout-damaged, or otherwise materially damaged.

**Wild oats** are seeds of *Avena fatua* L. and *A. sterilis* L.

**Moisture** is the water content of grain as determined by an approved electronic moisture meter. The percentage of moisture in a sample does not affect the numerical grade.

**Table 21. U.S. Oats Exports: Number of lots and quantity exported by class and grade, 1994-96**

Class	1994		1995		1996	
	Number of Lots	Metric Tons	Number of Lots	Metric Tons	Number of Lots	Metric Tons
U.S. No. 2	1	1,350	--	--	1	4,563
U.S. No. 3	--	--	1	1,900	--	--
All lots	1	1,350	1	1,900	1	4,563

## Canola

### Canola Grades and Grade Requirements

There are no classes of canola. Canola is divided into three numerical grades and U.S. Sample grade. Special grades are provided to emphasize special qualities or conditions

affecting the value, and are added to and made a part of the grade designation. They do not affect the numerical or sample grade designation.

### U.S. Standards for Canola

Grade	Maximum percent limits of --							Maximum count limits of --			
	Damaged Kernels			Conspicuous Admixture				Inconspicuous Admixture	Other material		
	Heat damaged (percent)	Distinctly green (percent)	Total (percent)	Ergot (percent)	Sclerotinia (percent)	Stones (percent)	Total (percent)		Animal Filth	Glass	Unknown Foreign Substance
U.S. No. 1	0.1	2.0	3.0	0.05	0.05	0.05	1.0	5.0	3	0	1
U.S. No. 2	0.5	6.0	10.0	0.05	0.10	0.05	1.5	5.0	3	0	1
U.S. No. 3	2.0	20.0	20.0	0.05	0.15	0.05	2.0	5.0	3	0	1
U.S. Sample Grade											

U.S. Sample grade is canola that:

- (a) Does not meet the requirements for U.S. Nos. 1, 2, or 3; or
- (b) Has a musty, sour, or commercially objectionable foreign odor; or
- (c) Is heating or otherwise of distinctly low quality.



## Canola

### Definitions

**Conspicuous admixture** is all matter other than canola including, but not limited to, ergot, sclerotinia, and stones, which is conspicuous and readily distinguishable from canola and which remains in the sample after the removal of machine separated dockage. Conspicuous admixture is added to machine separated dockage in the computation of total dockage.

**Damaged kernels** are canola and pieces of canola that are heat-damaged, sprout-damaged, mold-damaged, distinctly green-damaged, frost-damaged, rime-damaged, or otherwise materially damaged.

**Distinctly green kernels** are canola and pieces of canola which, after being crushed, exhibit a distinctly green color.

**Dockage** is all matter other than canola that can be removed from the original sample by use of an approved device according to procedures described in FGIS instructions. Also, underdeveloped, shriveled, and small pieces of canola kernels that cannot be recovered by properly screening or recleaning. Machine separated dockage is added to conspicuous admixture in the computation of total dockage.

**Ergot** is sclerotia of the fungus, *Claviceps* species, which are associated with some seeds other than canola where the fungal organism has replaced the seed.

**Heat-damaged kernels** are canola and pieces of canola which, after being crushed, exhibit that they are discolored and damaged by heat.

**Inconspicuous admixture** is any seed which is difficult to distinguish from canola. This includes, but is not limited to, common wild mustard (*Brassica kaber* and *B. juncea*), domestic brown mustard (*Brassica juncea*), yellow mustard (*B. hirta*), and seed other than the mustard group.

**Sclerotia** are dark colored or black resting bodies of the *Sclerotinia* and *Claviceps*.

**Sclerotinia** is the genus name which includes the fungus *Sclerotinia sclerotiorum* which produces sclerotia. Canola is only infrequently infected, and the sclerotia, unlike sclerotia of ergot, are usually associated with the stem of the plants.

**Table 22. U.S. Canola Exports: Number of lots and quantity exported by class and grade, 1994-96**

	1994		1995		1996	
	Number of Lots	Metric Tons	Number of Lots	Metric Tons	Number of Lots	Metric Tons
<b>U.S. No. 1</b>	6	71,812	5	34,650	6	52,729
<b>All lots</b>	6	71,812	5	34,650	6	52,729

-- = No lots reported in this category.

**Table 23. Summary of export Canola quality, 1994-96**

Factor	Grade	Grade Limit	1994				1995				1996			
			No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High	No. of Lots	Avg.	Low	High
Dockage	U.S. No. 1	N/A	6	4.6	2.5	6.9	5	5.0	1.6	7.8	5	3.8	1.2	7.6
	All lots	N/A	6	4.6	2.5	6.9	5	5.0	1.6	7.8	5	3.8	1.2	7.6
Moisture	U.S. No. 1	N/A	3	8.0	7.9	8.2	3	8.1	8.0	8.2	5	6.6	5.3	8.5
	All lots	N/A	3	8.0	7.9	8.2	3	8.1	8.0	8.2	5	6.6	5.3	8.5
Heat damaged kernels	U.S. No. 1	0.1	6	0.0	0.0	0.0	5	0.0	0.0	0.1	6	0.0	0.0	0.0
	All lots	N/A	6	0.0	0.0	0.0	5	0.0	0.0	0.1	6	0.0	0.0	0.0
Distinctly green kernels	U.S. No. 1	2.0	6	0.5	0.0	1.1	5	0.9	0.0	1.3	6	0.8	0.0	1.6
	All lots	N/A	6	0.5	0.0	1.1	5	0.9	0.0	1.3	6	0.8	0.0	1.6
Total damaged kernels	U.S. No. 1	3.0	6	0.8	0.2	1.5	5	1.1	0.0	1.6	6	0.8	0.0	2.0
	All lots	N/A	6	0.8	0.2	1.5	5	1.1	0.0	1.6	6	0.8	0.0	2.0
Ergot	U.S. No. 1	0.05	6	0.0	0.0	0.0	5	0.0	0.0	0.0	6	0.0	0.0	0.0
	All lots	N/A	6	0.0	0.0	0.0	5	0.0	0.0	0.0	6	0.0	0.0	0.0
Sclerotinia	U.S. No. 1	0.05	6	0.0	0.0	0.0	5	0.0	0.0	0.0	6	0.0	0.0	0.0
	All lots	N/A	6	0.0	0.0	0.0	5	0.0	0.0	0.0	6	0.0	0.0	0.0
Stones	U.S. No. 1	0.05	6	0.0	0.0	0.0	5	0.0	0.0	0.0	6	0.0	0.0	0.0
	All lots	N/A	6	0.0	0.0	0.0	5	0.0	0.0	0.0	6	0.0	0.0	0.0
Total conspicuous admixture	U.S. No. 1	1.0	6	0.4	0.2	0.5	5	0.6	0.0	0.9	6	0.2	0.0	0.5
	All lots	N/A	6	0.4	0.2	0.5	5	0.6	0.0	0.9	6	0.2	0.0	0.5
Inconspicuous admixture	U.S. No. 1	5.0	6	0.0	0.0	0.1	5	0.2	0.0	0.6	6	0.0	0.0	0.0
	All lots	N/A	6	0.0	0.0	0.1	5	0.2	0.0	0.6	6	0.0	0.0	0.0

N/A = Does not apply.  
 -- = No lots reported in this category.

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