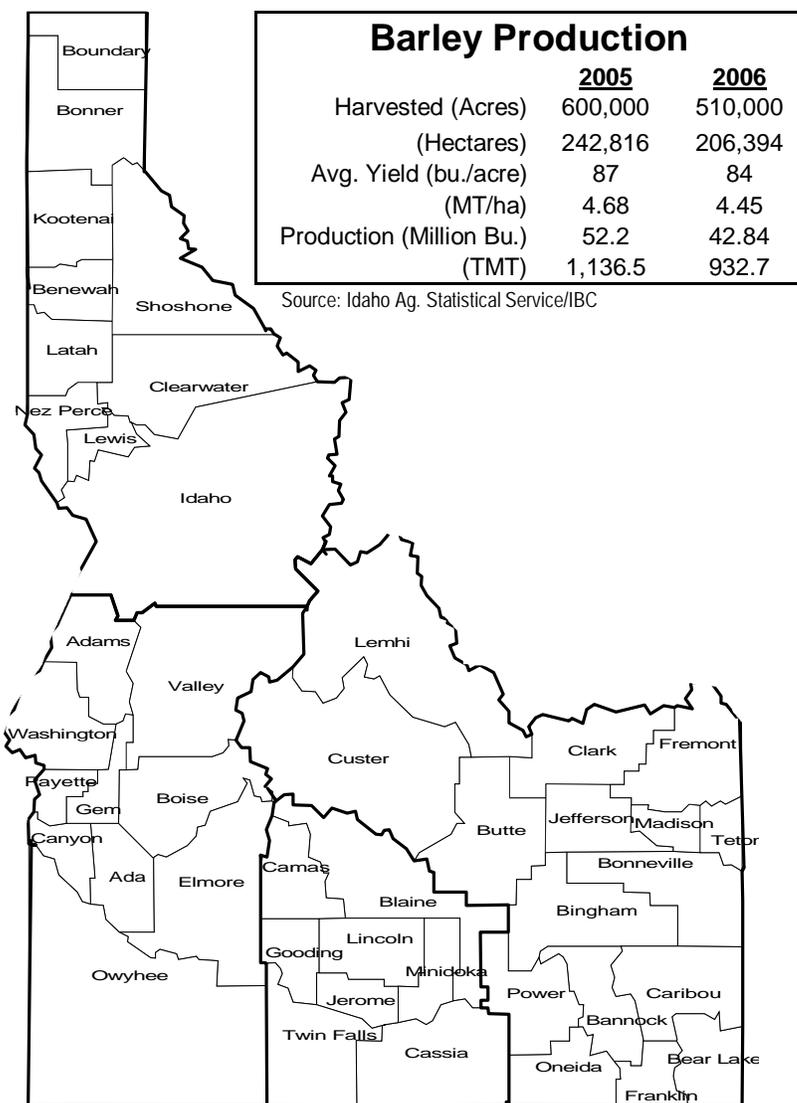




2006

*BARLEY QUALITY
REPORT*

2006 IDAHO BARLEY QUALITY REPORT



Summary

Idaho barley production totaled 42.84 million bushels from 510,000 harvested acres in 2006, a decrease of 17.9% from the previous year. Quality was good overall and excellent in some locations.

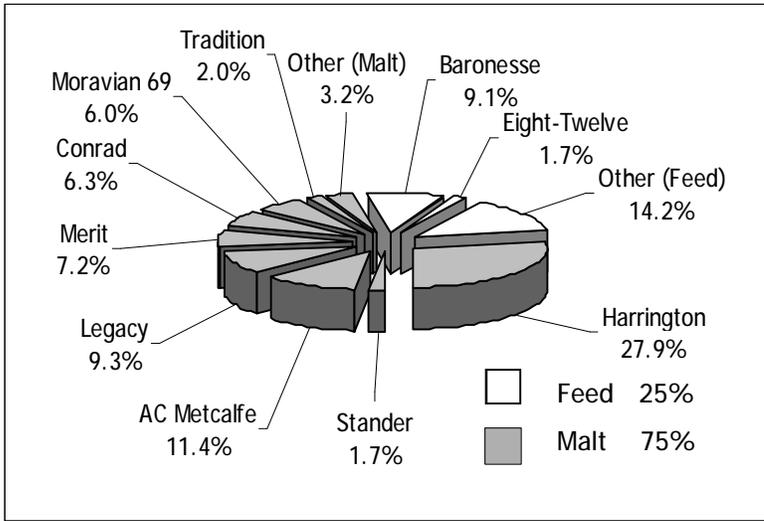
Approximately 71% of Idaho's barley sampled received a USDA/FGIS grade of #1. There were 230 barley samples collected from Idaho elevators, commodity brokers and farmers. The samples were separated by class, variety and region. They were graded at a licensed Federal Grain Inspection Service (FGIS) facility.

Average weight was nearly the same as last year at 49.70 pounds per bushel (lb/bu). Ninety-three percent of the 2-row malting barley crop tested 48 lb/bu or better and eighty-eight percent of the 6-row malting barley crop tested 48 lb/bu or better. Overall thins averaged 3.74% and plumps averaged 86.8%. Protein averaged 11.38% statewide and moisture averaged 9.4%. The average for skinned and broken kernels was 1.33%.

Average Statewide Barley Quality

Type	# Samples	Test Wt. ¹		1000 Knl (grams)	Moist %	Thin ² %	Protein	Sound ³	Skn/Br ⁴ %	% Plump	Average
		(lb/bu)	(kg/hl)								
2-R Feed	50	49.04	63.17		9.44	4.15	11.93	99.92			1.37
6-R Feed	23	47.93	61.74		9.13	6.60	12.36	98.81			1.48
2-R Malting	107	50.60	65.18	41.02	9.48	3.15	11.07	99.72	1.37	88.84	1.35
6-R Malting	50	49.25	63.44	36.56	9.31	3.27	11.07	99.01	1.49	87.73	1.30
2006 Avg.	230	49.70	64.02	39.50	9.40	3.74	11.38	99.35	1.33	86.78	1.35
2005 Avg.	323	49.44	63.68	38.24	9.37	4.44	11.87	99.47	1.74	84.00	1.45
5 Yr Avg.	290	49.15	63.37	38.84	9.57	4.22	12.01	99.37	1.77	85.3	1.47

2006 IDAHO BARLEY VARIETIES MALTING VS FEED



Top Ten Idaho Varieties

Variety	Planted Acres	Hectares	% of Prod.
Harrington (2-Row Malt)	156,200	63,213	27.9%
AC Metcalfe (2-Row Malt)	63,800	25,819	11.4%
Legacy (6-Row Malt)	51,900	21,004	9.3%
Baronesse (2-Row Feed)	50,700	20,518	9.1%
Merit (2-Row Malt)	40,500	16,390	7.2%
Conrad (2-Row Malt)	35,200	14,245	6.3%
Moravian 69 (2-Row Malt)	33,500	13,557	6.0%
Tradition (6-Row Malt)	11,300	4,573	2.0%
Stander (6-Row Malt)	9,600	3,885	1.7%
Eight-Twelve (6-Row Feed)	9,600	3,885	1.7%
Other Malt	18,000	7,284	3.2%
Other Feed	79,700	32,254	14.2%
TOTAL:	560,000	226,629	100%

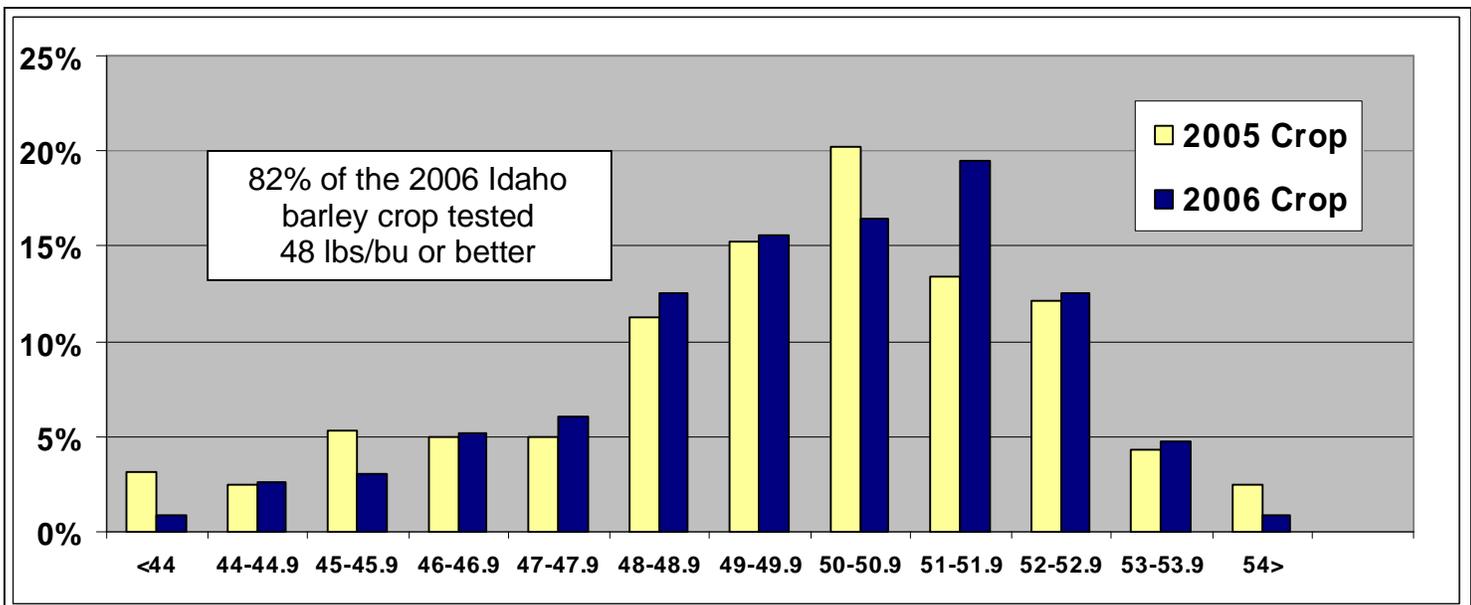
Source: 2006 IBC/Idaho Ag Statistics Service

Source: 2006 IBC/Idaho Ag Statistics Service

2006 Idaho Barley Quality By Variety

Variety	Type/Use	# Samples	Test Wt. (lbs/bu)	1000 Knl (grams)	Moisture %	Thin	% Protein	% Sound	% Skn/Br%	Plump%	Average
Harrington	2-Row Malt	34	50.10	42.18	9.28	3.51	11.44	99.75	1.75	87.46	1.38
AC Metcalfe	2-Row Malt	18	50.57	37.25	9.89	3.23	10.54	99.73	1.54	88.48	1.50
Legacy	6-Row Malt	32	49.16	31.30	9.52	3.38	11.17	99.61	1.60	80.80	1.16
Baronesse	2-Row Feed	14	49.71		8.94	4.70	11.57	96.94			1.43
Merit	2-Row Malt	4	47.38		8.75	4.93	10.15	99.85	.87	87.93	2
Conrad	2-Row Malt	7	50.90	40.90	9.21	2.29	10.70	99.89	.70	93.16	1.43
Moravian 69	2-Row Malt	16	50.63		9.00	3.93	10.14	99.88	.89	87.25	1.19
Tradition	6-Row Malt	2	49.25		9.05	1.70	11.85	99.85	2.25	89.80	1
Stander	6-Row Malt	15	49.40	36.77	9.08	3.75	11.11	97.69	1.27	84.40	1.67

Idaho Barley Test Weight Distribution 2005-2006



2006 Regional Quality

North Idaho



Barley Production

	<u>2005</u>	<u>2006</u>
<u>Harvested (Acres)</u>	54,000	40,800
(Hectares)	21,853	16,512
% Idaho Acreage	9%	8%

Source: Idaho Ag. Statistical Service/IBC

Barley Varieties Planted

Baronesse	31.50%
AC Metcalfe	24.00%
Camas	17.70%
Harrington	8.30%
Conrad	3.40%
Legacy	2.10%
Other Feed	12.60%
Other Malting	0.40%

Type	# Samples	Test Wt. ¹ (lb/bu)	(kg/hl)	1000 Knl (grams)	Moist %	Thin ² %	Protein	Sound ³	Skn/Br ⁴ %	% Plump ⁵	Average
2-R Feed	13	50.45	64.97		9.30	4.18	11.91	99.64			1.08
2-R Malting	2	49.15	63.31		9.35	7.45	11.65	99.60	1.40	78.8	2.50

2006 Avg.	15	50.27	64.75		9.31	4.62	11.87	99.64			1.27
2005 Avg.	21	49.69	64.00	34.68	9.06	7.05	11.72	99.40	2.63	64.01	1.38
5 Yr Avg.	28	48.82	62.88	35.62	9.55	4.79	11.96	99.10	1.77	72.10	1.43

Southwest Idaho



Barley Production

	<u>2005</u>	<u>2006</u>
<u>Harvested (Acres)</u>	11,000	10,200
(Hectares)	4,452	4,128
% Idaho Acreage	1.8%	2%

Source: Idaho Ag. Statistical Service/IBC

Barley Varieties Planted

Baronesse	20.0%
Idagold	14.4%
Millenium	10.0%
Sprinter	4.4%
Other Malting	5.6%
Other Feed	45.6%

Type	# Samples	Test Wt. ¹ (lb/bu)	(kg/hl)	1000 Knl (grams)	Moist %	Thin ² %	Protein	Sound ³	Skn/Br ⁴ %	% Plump ⁵	Average
2-R Feed	5	48.60	62.6		8.30	6.60	11.05	98.32			1.8
6-R Feed	2	44.25	56.99		7.50	5.60	11.40	88.40			4

2006 Avg.	7	47.36	61		8.07	6.31	11.15	95.49			2.43
2005 Avg.	10	51.43	66.24		8.18	2.70	9.19	99.80			1.10
5 Yr Avg.	8	49.30	63.49		8.69	4.65	10.93	98.82			1.53

¹ Weighted average by regional production

² % Thins: 2-rowed kernels passing through a 5/64 x 3/4 in. (2.2 x 19 mm) slotted sieve
6-rowed kernels passing through a 5/64 x 3/4 in. (2.0 x 19 mm) slotted sieve

2006 Regional Quality

South Central Idaho

Barley Varieties Planted

Harrington	26.9%
Moravian 69	26.4%
Eight-Twelve	7.6%
Other Malting	6.5%
Criton	5.9%
Sunstar	3.6%
Baronesse	3.1%
Millenium	1.8%
Idagold	1.7%
Other feed	16.5%

Barley Production

	2005	2006
Harvested (Acres)	146,000	117,300
(Hectares)	59,085	47,471
% Idaho Acreage	24.3%	22.7%

Source: Idaho Ag. Statistical Service/IBC



Type	# Samples	Test Wt. ¹ (lb/bu)	(kg/hl)	1000 Knl (grams)	Moist %	Thin ² %	Protein	Sound ³	Skn/Br ⁴ %	% Plump ⁵	Average
2-R Feed	3	48.33	62.25		8.90	3.07		99.87			1.33
6-R Feed	18	48.32	62.26		9.26	7.51	12.77	99.79			1.22
2-R Malting	44	51.52	66.36	41.46	9.33	3.20	11.26	99.68	1.03	90.28	1.14
6-R Malting	2	49.25	63.43		7.95	4.70	8.79	99.35			1
2006 Avg.	67	50.45	64.98	41.46	9.25	4.40	11.41	99.71	1.03	90.28	1.16
2005 Avg.	100	50.13	64.57	39.82	9.05	3.05	11.76	99.50	1.83	88.09	1.23
5 Yr Avg.	88	50.32	64.80	40.62	9.30	2.67	11.63	99.65	1.55	91.63	1.17

Southeast Idaho

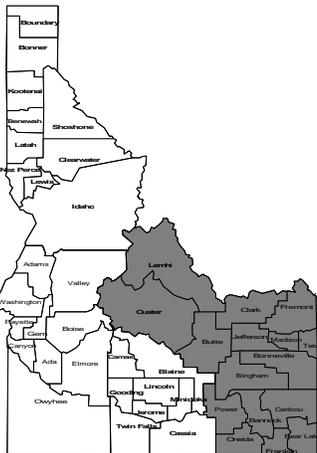
Barley Varieties Planted

Harrington	31.3%
Legacy	13.5%
AC Metcalfe	13.1%
Merit	10.5%
Conrad	8.3%
Tradition	3.0%
Stander	2.5%
B1202	2.0%
Baronesse	8.0%
AB 2323	0.7%
Other	7.0%

Barley Production

	2005	2006
Harvested (Acres)	389,000	341,700
(Hectares)	157,426	138,283
% Idaho Acreage	64.8%	67.3%

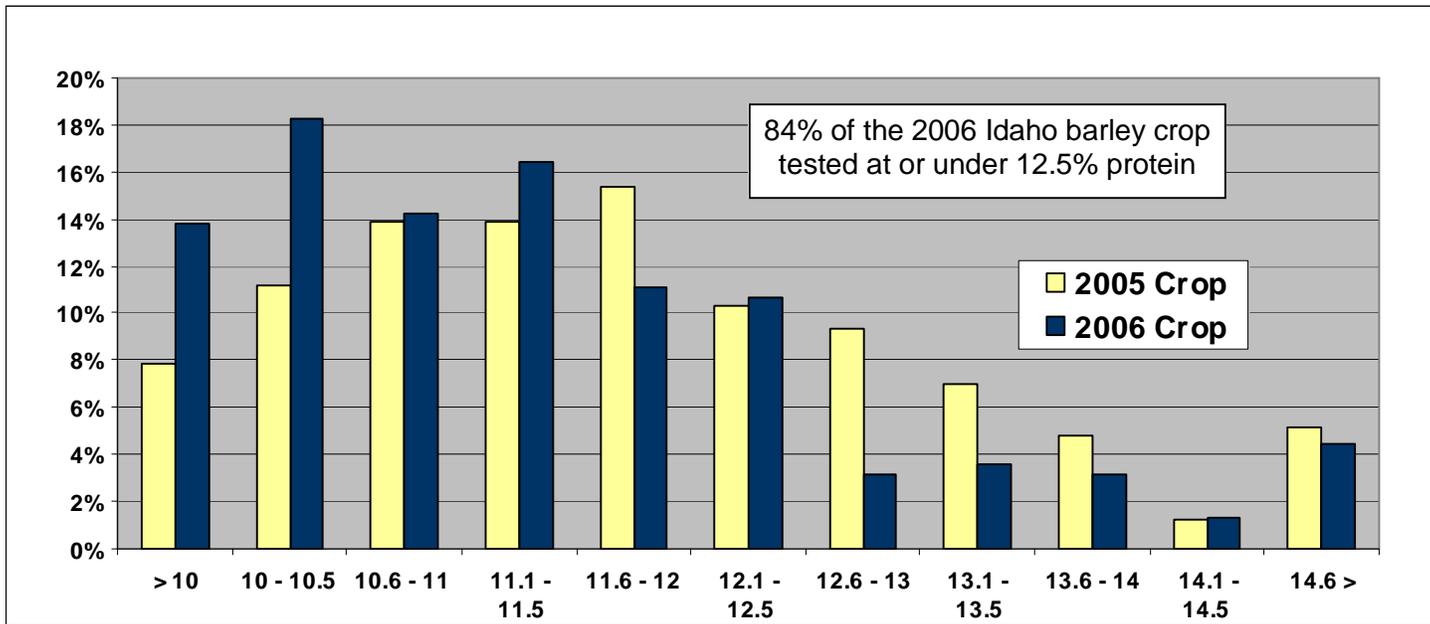
Source: Idaho Ag. Statistical Service/IBC



Type	# Samples	Test Wt. ¹ (lb/bu)	(kg/hl)	1000 Knl (grams)	Moist %	Thin ² %	Protein	Sound ³	Skn/Br ⁴ %	% Plump ⁵	Average
2-R Feed	26	48.20	62.08		9.75	3.75	12.22	99.08			1.48
6-R Feed	2	48.75	62.79		9.65	2.40	10.50	99.85			1
2-R Malting	61	49.95	64.33	39.92	9.60	3.03	10.93	99.75	1.61	88.21	1.48
6-R Malting	47	49.26	63.45	36.45	9.37	3.16	11.18	98.97	1.50	82.65	1.30
2006 Avg.	136	49.36	63.57		9.55	3.21	11.25	99.35	1.52	80.57	1.40
2005 Avg.	181	48.89	62.63	37.97	9.66	5.02	12.15	99.43	1.64	94.67	1.60
5 Yr Avg.	162	48.93	62.88	38.45	9.86	4.57	12.26	99.26	1.79	87.95	1.61

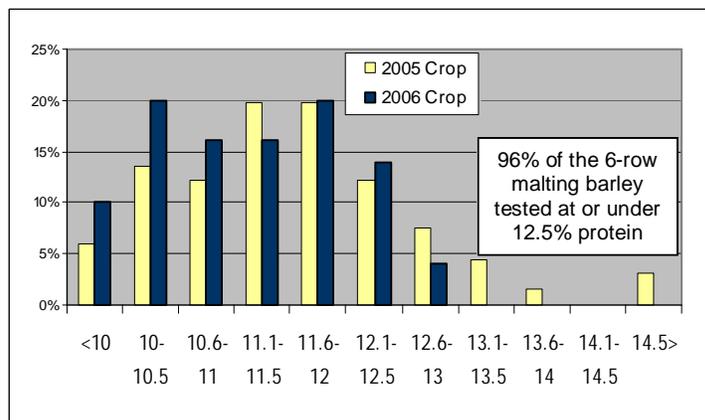
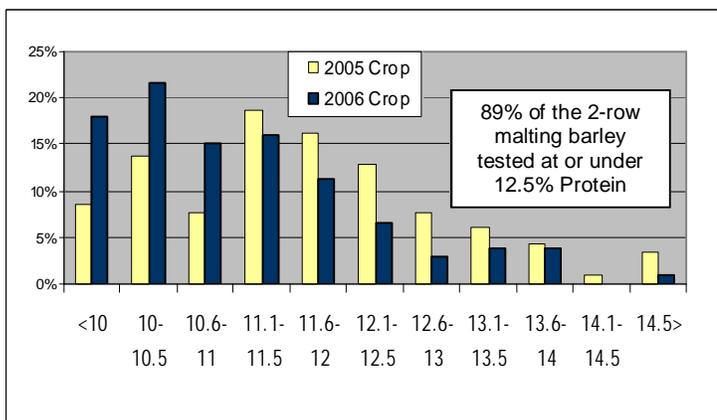
³ % Sound = 100 % dockage free barley (minus) % damaged kernels, % foreign material, % other grains, % wild oats
⁴ % Skinned and broken kernels ⁵ % Plumps: Kernels retained on or above 6/64 x 3/4 in. (2.4 x 19 mm) slotted sieve

Idaho Barley Protein Distribution 2005-2006



2-Row Malting Barley Protein

6-Row Malting Barley Protein



METHODS EMPLOYED AND DEFINITION OF TERMS AND SYMBOLS

TEST WEIGHT - Test weight was determined on dockage free barley using a Seedbuero Model #8850 computer grain scale. Test weight was expressed in pounds per bushel. In the event sample moisture exceeded 13.5%, the sample was allowed to air-dry prior to test weight determination.

MOISTURE - Moisture expressed as % of total weight was determined by using a Dicky-john gac2100.

PROTEIN - Percent total protein calculated on a dry basis was determined by infratech model 1241 whole grain analyzer using ANN calibration.

PLUMP BARLEY - Barley that remains on top of a 6/64 x 3/4 slotted-hole sieve after sieving.

THIN BARLEY - For the class Barley¹ and 6-row barley which passes through a 5/64 x 3/4 slotted-hole sieve and 2-row malting barley² which passes through a 5.5/64 x 3/4 slotted-hole sieve after sieving.

¹ The class Barley is a mixture of 10% or more of 2-row barley or 6-row barley.

² 2-row malting barley is sieved on a 5.5/64 x 3/4 slotted-hole sieve which would be higher thins.

USDA/FGIS

United States Grades and Grade Requirements

§ 810.204 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/bu.	Suitable Malting Types	Sound Barley ¹	Damaged Kernels ¹	Foreign Material	Other Grains	Skinned & Broken Kernels	Thin Barley ²
	<i>Pounds</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
U.S. No. 1	47.0	95.0	97.0	2.0	.5	2.0	4.0	7.0
U.S. No. 2	45.0	95.0	94.0	3.0	1.0	3.0	6.0	10.0
U.S. No. 3	43.0	95.0	90.0	4.0	2.0	5.0	8.0	15.0
U.S. No. 4	43.00	95.0	87.0	5.0	3.0	5.0	10.0	15.0

¹ Injured-by-frost kernels and injured-by-mold kernels are not considered damaged kernels or considered against sound barley..

² Use the 5/64 x 3/4 slotted-hole sieve

Note: Malting barley shall not be infested in accordance with § 810.07(b) and shall not contain any special grades as defined in § 810.206. Six-rowed Malting barley and Six-rowed Blue Malting barley varieties not meeting the requirements of this section shall be graded in accordance with standards established for the class Barley.

§ 810.205 Grades and grade requirements for Two-rowed Malting Barley.

Grade	Minimum limits of -			Maximum Limits of -			
	Test Weight Per/bu.	Suitable Malting Types	Sound Barley ¹	Wild Oats	Foreign Material	Skinned & Broken Kernels	Thin Barley ²
	<i>Pounds</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
U.S. No. 1	50.0	97.0	98.0	1.0	0.5	5.0	5.0
U.S. No. 2	48.0	97.0	98.0	1.0	1.0	7.0	7.0
U.S. No. 3	48.0	95.0	96.0	2.0	2.0	10.0	10.0
U.S. No. 4	48.0	95.0	93.0	3.0	3.0	10.0	10.0

¹ Injured-by-frost kernels and injured-by mold kernels are not considered damaged kernels or considered against sound barley

² Use the 5.5/64 x 3/4 slotted-hole sieve.

Note: Malting barley shall not be infested in accordance with § 810.07(b) and shall not contain any special grades as defined in § 810.206. Two-rowed Malting barley varieties not meeting the requirements of this section shall be graded in accordance with standards established for the class Barley.

§ 810.206 Grades and grade requirements for Barley.

Grade	Minimum limits of -			Maximum Limits of -			
	Test Weight Per/bu.	Sound Barley ¹	Damaged Kernels ¹	Heat Damaged Kernels	Foreign Material	Skinned & Broken Kernels	Thin Barley ²
	<i>Pounds</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
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	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 shall be barley that:

(a) Does not meet the requirements for the grades 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 unknown foreign substance(s) or 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 or considered against sound barley..

² Use the 5/64 x 3/4 slotted-hole sieve

METRIC CONVERSION TABLES FOR BARLEY

U.S. to Metric	
1 Wet Quart (Qt)	= 0.9464 Liter (L)
1 Dry Quart	= 1.10 Liters
1 Wet Gallon (Gal)	= 3.785 Liters
1 Wet Gallon	= 0.0378 Hectoliter (Hl)
1 Dry Gallon	= 4.404 Liters
1 Dry Gallon	= 0.044 Hectoliter
1 Bushel	= 0.352 Hectoliter
1 Acre (A)	= 0.404694 Hectare (Ha)
1 Pound (Lb)	= 0.4536 Kilogram (Kg)
1 Mile (Mi)	= 1.610 Kilometers (Km)
1 Bu. Barley	= .021772 Metric Ton
1 Beer Barrel	= 31.0 Gallons
Lb/Bu x 1.288	= Kg/Hl
Bu/A x 0.869	= Hl/Ha
Bu/A x .05380	= MT/Ha

Metric to U.S.	
1 Liter	= 1.0567 Wet Quarts
1 Liter	= 0.098 Dry Quart
1 Liter	= .2642 Wet Gallon
1 Hectoliter	= 26.42 Wet Gallons
1 Liter	= .227 Dry Gallon
1 Hectoliter	= 22.70 Dry Gallons
1 Hectoliter	= 2.838 Bushels
1 Hectare	= 2.471 Acres
1 Kilogram	= 2.2046 Pounds
1 Kilometer	= 0.62 Mile
1 Metric Ton	= 45.9296 Bu. of Barley
1.1734 Hectoliters	= 1 Beer Barrel
Kg/Hl x .7764	= Lb/Bu
Hl/Ha x 1.15	= Bu/A
MT/Ha x 18.59	= Bu/A

STANDARDS

	Lbs/Bu	Kg/Hl
Malt	34	43.79
Barley	48	61.82

ACKNOWLEDGMENTS

The Idaho Barley Commission would like to thank the barley producers, elevator operators and commodity dealers who participated in our barley quality survey. Their combined efforts were responsible for the success of this survey.

Additional copies of this report are available by contacting the Idaho Barley Commission.



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