

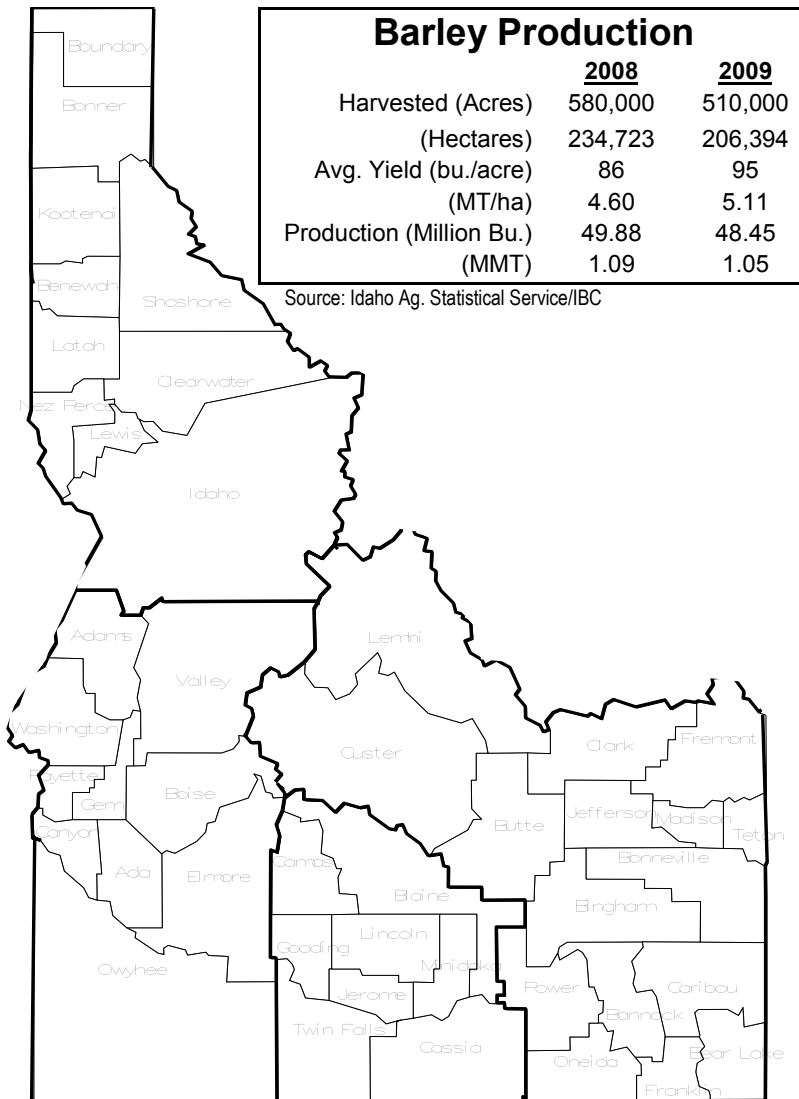


2009

BARLEY QUALITY

REPORT

2009 IDAHO BARLEY QUALITY REPORT



Summary

Idaho barley production totaled 48.455 million bushels from 510,000 harvested acres in 2009, representing a decrease of 3% in output from the previous year. Quality was mostly good overall.

Approximately 66% of Idaho's barley sampled received a USDA/FGIS grade of #1. There were 843 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.

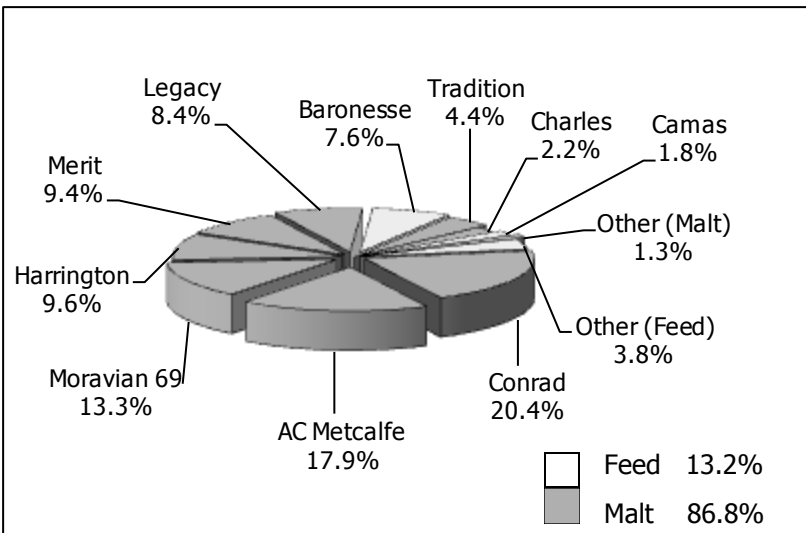
Average weight was higher than last year at 49.8 pounds per bushel (lb/bu). Eighty-nine percent of the 2-row malting barley crop tested 48 lb/bu or better and ninety-one percent of the 6-row malting barley crop tested 48 lb/bu or better. Overall thins averaged 1.98% and plumps averaged 83.1%. Protein averaged 11.8% statewide and moisture averaged 10.8%. The average for skinned and broken kernels was 1.9%.

Average Statewide Barley Quality

Type	# Samples	Test Wt. ¹		1000 Knl	Moist %	Thin ² %	Protein	Sound ³	Skn/Br ⁴ %	% Plump	Average
		(lb/bu)	(kg/ha)	(grams)							
2-R Feed	63	48.73	62.76	41.62	9.97	3.39	13.18	99.39	1.15	81.03	1.56
6-R Feed	17	49.15	63.30	37.58	10.06	3.06	10.98	99.64	2.97	90.03	1.24
2-R Malting	140	50.48	65.02	42.07	10.19	2.24	11.38	99.57	1.89	91.70	1.40
6-R Malting	623	49.72	64.04	34.73	10.99	1.75	11.94	99.73	1.90	90.34	1.56
2009 Avg.	843	49.76	64.09	41.10	10.76	1.98	11.81	99.52	1.90	83.14	1.68
2008 Avg.	262	50.37	64.88	42.32	10.99	3.33	11.97	99.54	1.87	90.16	1.34
5 Yr Avg.	376	49.48	63.72	39.39	9.82	3.55	11.72	99.38	1.64	85.69	1.49

2009 IDAHO BARLEY VARIETIES

MALTING VS FEED



Top Ten Idaho Varieties

Variety	Planted Acres	Hectares	% of Prod.
Conrad (2-Row Malt)	107,500	43,505	20.4%
AC Metcalfe (2-Row Malt)	94,400	38,203	17.9%
Moravian 69 (2-Row Malt)	69,900	28,288	13.3%
Harrington (2-Row Malt)	50,800	20,558	9.6%
Merit (2-Row Malt)	49,500	20,032	9.4%
Legacy (2-Row Malt)	44,400	17,968	8.4%
Baronesse (2-Row Feed)	39,900	16,147	7.6%
Tradition (6-Row Malt)	23,200	9,389	4.4%
Charles (2-Row Malt)	11,500	4,654	2.2%
Camas (2-Row Feed)	9,600	3,885	1.8%
Other Malt	6,900	2,792	1.3%
Other Feed	19,900	8,053	3.8%
TOTAL:	527,500	213,476	100%

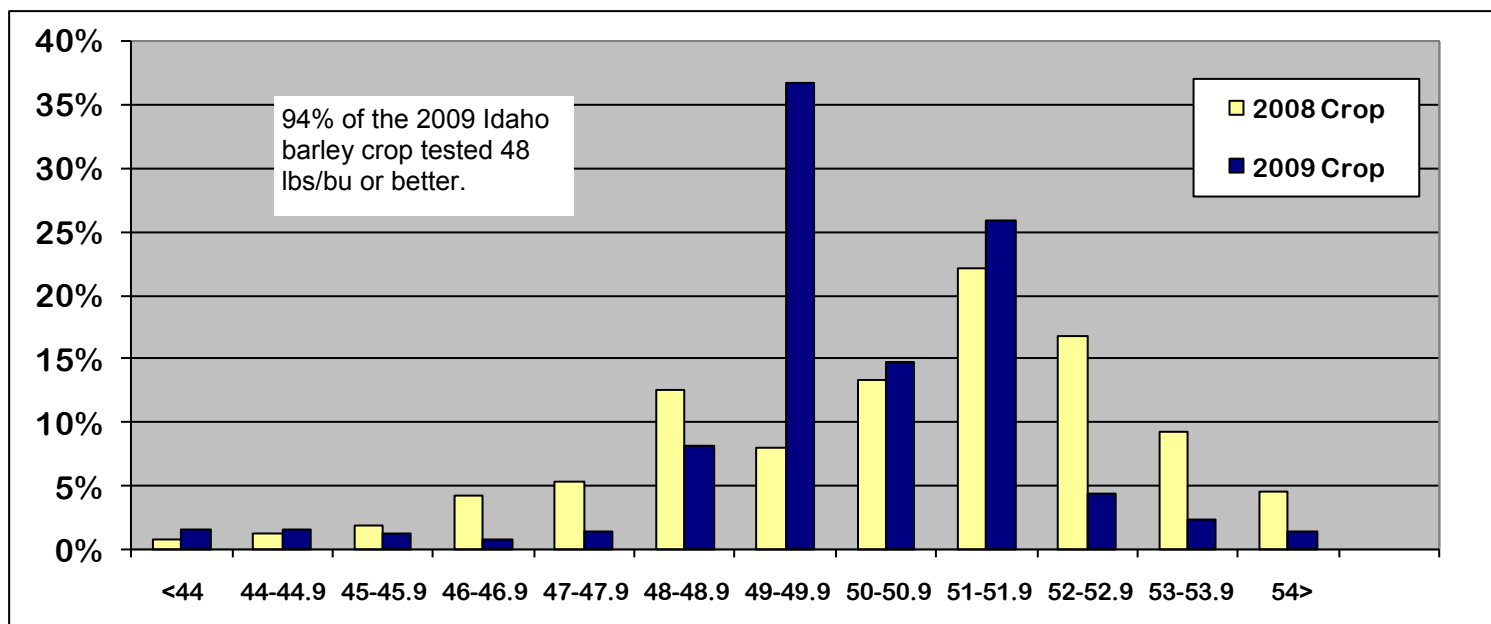
Source: 2009 IBC/Idaho Ag Statistics Service

Source: 2009 IBC/Idaho Ag Statistics Service

2009 Idaho Barley Quality By Variety

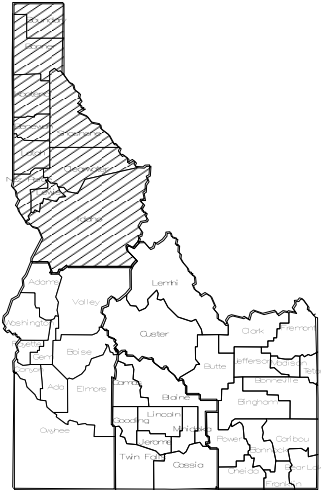
Variety	Type/Use	# Samples	Test Wt. (lbs/bu)	1000 Knl (grams)	Moisture %	Thin %	Protein %	Sound %	Skn/Br%	Plump%	Average
Legacy	6-Row Malt	211	49.09	34.73	10.88	2.16	11.73	99.73	1.94	86.81	1.56
Harrington	2-Row Malt	163	50.37	41.04	11.00	1.68	12.04	99.30	2.16	91.84	1.79
AC Metcalfe	2-Row Malt	105	50.27	41.09	10.95	1.92	12.08	99.76	1.49	91.88	1.63
Tradition	6-Row Malt	89	49.42	34.76	10.95	1.29	12.00	99.80	1.97	92.25	1.00
Conrad	2-Row Malt	67	50.25	41.43	10.91	1.66	12.09	99.43	1.48	95.85	1.13
Merit	2-Row Malt	33	48.84	39.38	10.76	2.80	11.12	99.72	1.52	89.38	2.08
Baronesse	2-Row Feed	11	51.45		10.32	1.41	12.02	98.95			1.18
Moravian 69	2-Row Malt	10	52.28	45.70	9.69	2.37	10.25	99.84	1.52	91.87	1.00

Idaho Barley Test Weight Distribution 2008-2009



2009 Regional Quality

North Idaho



Barley Production

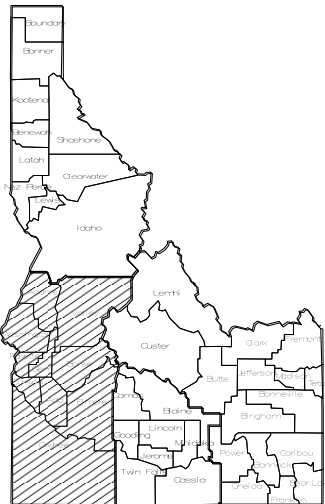
	<u>2008</u>	<u>2009</u>
<u>Harvested (Acres)</u>	69,600	40,800
(Hectares)	28,167	16,483
% Idaho Acreage	12%	8%

Source: Idaho Ag. Statistical Service/IBC

Barley Varieties Planted

Conrad	22.8%
AC Metcalfe	19.2%
Baronesse	18.1%
Camas	15.0%
Champion	12.7%
Merit	3.3%
Other Malting	0.9%
Other Feed	8.0%

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	7	50.64	65.23	43.01	10.43	1.67	12.99	99.37	1.33	91.55	1.14
6-R Feed	7	51.07	65.78	37.58	10.34	1.06	11.01	99.69	2.97	90.03	1.14
2009 Avg.	14	50.86	65.50	40.30	10.39	1.36	12.00	99.53	2.15	90.79	1.14
2008 Avg.	19	47.76	55.32		8.35	4.64	11.14	88.52			1.32
5 Yr Avg.	15	48.41	60.01	37.49	8.82	5.16	11.53	91.12	2.39	77.40	1.31



Southwest Idaho

Barley Production

	<u>2008</u>	<u>2009</u>
<u>Harvested (Acres)</u>	9,860	8,160
(Hectares)	3,990	3,304
% Idaho Acreage	1.7%	1.6%

Source: Idaho Ag. Statistical Service/IBC

Barley Varieties Planted

Millennium	23.8%
Steptoe	21.3%
Baronesse	12.5%
Eight-Twelve	10.0%
Other Feed	32.5%

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	48.70	62.73	0.00	9.44	3.52	10.96	98.82		1.40	
6-R Feed	3	45.73	58.90	0.00	9.11	5.33	12.07	99.73		1.67	
2009 Avg.	8	47.22	60.82	0.00	9.28	4.43	11.51	99.28		1.53	
2008 Avg.	10	47.70	61.44	41.58	8.26	7.94	12.67	99.61		1.60	
5 Yr Avg.	9	44.34	53.43		7.29	5.00	10.00	83.94	2.80	80.70	1.34

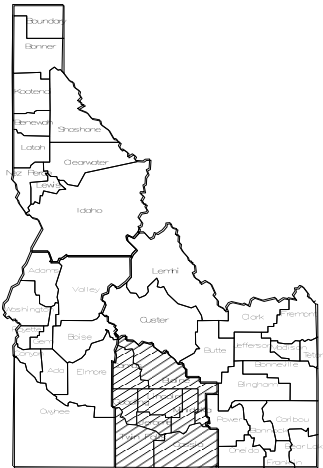
¹ Weighted average by regional production

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

2009 Regional Quality

South Central Idaho

Barley Varieties Planted



Barley Production

	2008	2009
Harvested (Acres)	133,400	127,500
(Hectares)	53,986	51,619
% Idaho Acreage	23%	25%

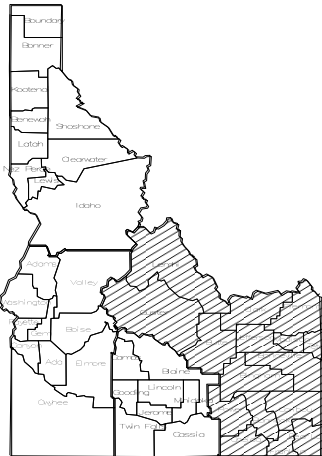
Source: Idaho Ag. Statistical Service/IBC

Moravian 69	58.9%
Conrad	11.7%
Charles	6.6%
Criton	5.4%
AC Metcalfe	4.2%
Idagold	4.0%
Eight-Twelve	2.4%
Other Malting	0.8%
Other Feed	6.0%

Type	# Samples	Test Wt. ¹	1000 Knl	Moist %	Thin ² %	Protein	Sound ³	Skn/Br ⁴ %	% Plump ⁵	Average
		(lb/bu)	(kg/hl)	(grams)						
2-R Feed	22	50.67	65.27	9.33	2.96	13.58	99.81			1.27
6-R Feed	4	49.65	63.95		9.28	10.53	99.80			1.25
2-R Malting	18	51.68	66.57	42.99	9.53	10.98	99.85	1.68	92.09	1.27
6-R Malting	1	48.20	62.08	34.60	9.50	9.60	99.70	1.70	84.00	1.00
2009 Avg.	45	50.05	64.47	38.79	9.40	11.17	99.79	1.69	88.04	1.20
2008 Avg.	88	51.68	66.57	42.70	9.36	12.48	99.51	1.81	88.91	1.24
5 Yr Avg.	71	50.65	65.24	37.07	9.29	11.10	97.67	1.48	89.38	1.20

Southeast Idaho

Barley Varieties Planted



Barley Production

	2008	2009
Harvested (Acres)	367,140	333,540
(Hectares)	148,580	135,036
% Idaho Acreage	63.3%	65.4%

Source: Idaho Ag. Statistical Service/IBC

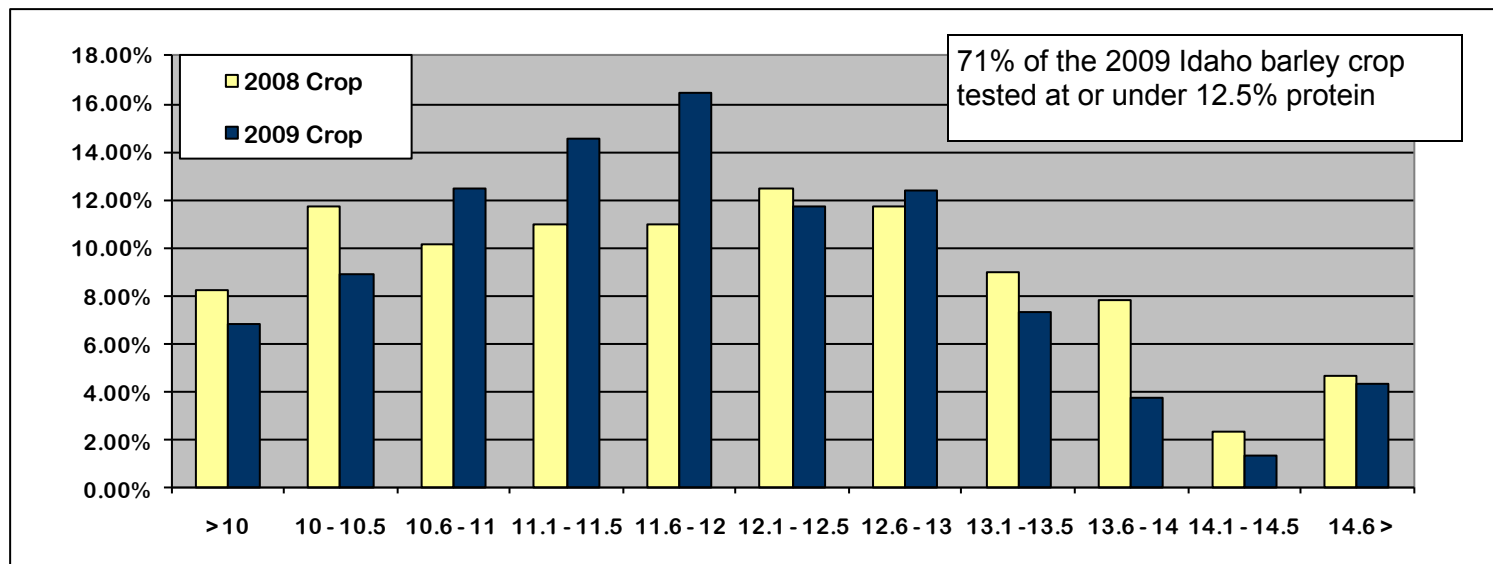
Conrad	22.5%
AC Metcalfe	21.7%
Harrington	13.1%
Merit	12.3%
Legacy	11.4%
Baronesse	7.2%
Tradition	6.2%
AB 2323	1.9%
Criton	0.5%
Other Malting	1.5%
Other Feed	1.8%

Type	# Samples	Test Wt. ¹	1000 Knl	Moist %	Thin ² %	Protein	Sound ³	Skn/Br ⁴ %	% Plump ⁵	Average
		(lb/bu)	(kg/hl)	(grams)						
2-R Feed	29	46.80	60.27	37.44	10.43	13.34	99.19	0.60	75.78	1.90
6-R Feed	3	47.40	61.05		11.40	10.40	99.05			1.00
2-R Malting	122	50.30	64.79	41.85	10.28	11.44	99.50	1.92	91.64	1.43
6-R Malting	622	49.72	64.04	34.75	10.99	11.94	99.74	1.9	90.35	1.63
2009 Avg.	776	48.56	62.54	38.01	10.78	11.78	99.37	1.47	85.92	1.49
2008 Avg.	145	48.32	62.24	37.61	9.19	12.34	99.36	2.02	83.47	1.71
5 Yr Avg.	273	48.61	62.54	54.99	9.65	12.00	98.75	1.61	85.56	1.59

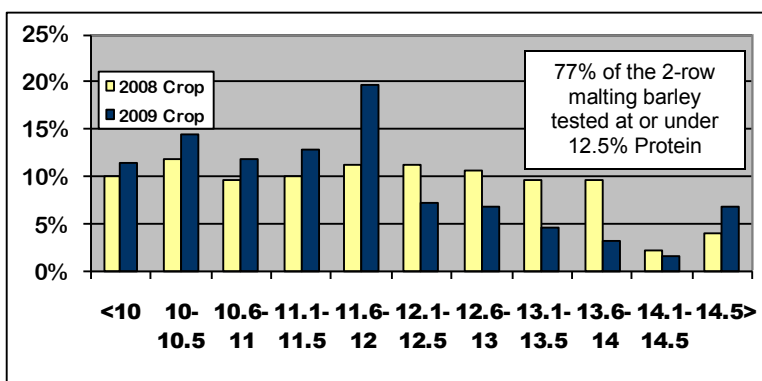
³ % Sound = 100 % dockage free barley (minus) % damaged kernels, % foreign material, % other grains, % wild oats

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

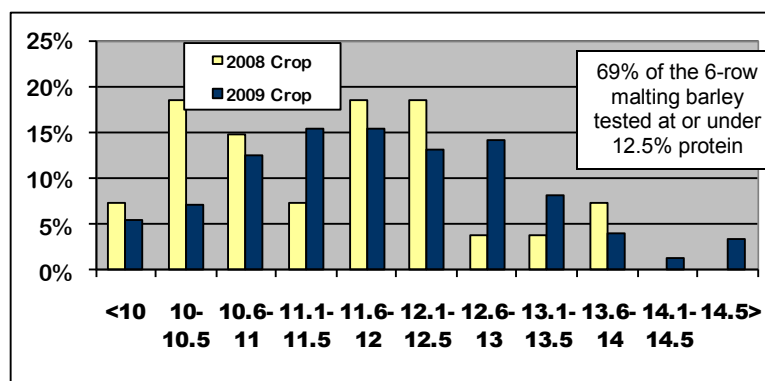
Idaho Barley Protein Distribution 2008-2009



2-Row Malting Barley Protein Distribution



6-Row Malting Barley Protein Distribution



METHODS EMPLOYED AND DEFINITION OF TERMS AND SYMBOLS

TEST WEIGHT - Test weight was determined on dockage free barley using a Seedbuco 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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