UtahStateUniversity
COOPERATIVE EXTENSION

SELECTING BARLEY VARIETIES FOR UTAH

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VARIETY SELECTION

Variety selection should be one of the first essential considerations when a farmer elects to plant a small grain crop for reasons of economics or crop rotation. This publication is designed to assist in variety selection based on growing conditions, yield considerations, and crop quality.

The crop is considered under various production systems, and varieties are suggested based on performance in Utah. All yield information in this outline was taken from the 1997 edition of the "Small Grains Performance Trials," Research Report xxx, published by the Utah Agricultural Experiment Station. Seed of many varieties of barley not reported in this circular is available for crop production in Utah. The addition or deletion of a commercial variety does not imply approval or disapproval by Utah State University or the USDA Cooperative Extension Service. Varieties reported in this publication are those that have been tested by Utah State University and for which three recent years of performance data are available.

DRYLAND—FALL PLANTED

There are no dryland winter barley varieties presently being tested in Utah by Utah State University.

DRYLAND—SPRING PLANTED

Table 1. 3-yr avg. for spring barley varieties tested under dryland conditions in Utah: 1995, 1996, and 1997.

		Bushels per acre		
Variety	**2-6 row**	**Blue Creek**	**Nephi**	**Avg**
Caribou	2	57.5	66.2	61.9
Gem	6	59.4	63.9	61.7
Brigham	6	58.6	64.4	61.5
Steptoe	6	57.3	64.9	61.1
Otis	2	55.5	63.3	59.4
Munsing	2	56.6	59.5	58.1
Piroline	2	57.1	58.0	57.6
Clark	2	47.0	66.6	56.8
Koral	2	57.1	52.6	54.9
Targhee	2	50.9	55.7	53.3
Colter	6	53.8	52.6	53.2
Baronesse	2	49.6	55.6	52.6

IRRIGATED—FALL PLANTED

Table 2. 3-yr avg. for six-row winter barley varieties tested under irrigation in Utah: 1995, 1996, 1997.

	Bushels per acre
Variety	**Logan**
Kold	162.8
Scio	154.5
Showin	140.4
Kamiak	137.3
Eight-twelve	134.0
Boyer	133.0
Hesk	131.4
Perkins	130.0
Gwen	128.0
Hundred	124.7
Post 90	123.4
Schuyler	120.4

IRRIGATED—SPRING PLANTED

Table 3. 3-yr avg. for six-row spring barley varieties tested under irrigation in Utah: 1995, 1996, 1997.

		Bushels per acre				
Variety	**2-6 row**	**Logan**	**Riverside**	**Morgan**	**Palmyra**	**Avg**
Century	6	116.5	125.6	156.8	147.7	136.7
Statehood	6	113.5	123.8	158.9	141.8	134.5
Rollo	6	110.3	119.3	142.6	139.4	127.9
Brigham	6	100.6	115.9	148.3	143.9	127.2
Walker	6	110.2	113.7	140.4	137.7	125.5
Steptoe	6	101.7	116.9	135.0	132.8	121.6
Colter	6	94.9	120.9	140.4	127.3	120.9
Bracken	6	99.9	107.5	132.0	124.7	116.0
Baronesse	2	101.7	104.1	133.2	119.7	114.7
Russell	6	83.3	108.7	126.4	113.9	108.1
Maranna	6	80.0	105.9	132.3	106.1	106.1
W.B.Sprinter	6	79.3	109.6	114.3	93.6	99.2
Trebi	6	71.8	87.5	105.7	83.8	87.2

OVERVIEW OF TESTED VARIETIES

Table 4. 3-yr avg. barley varieties tested in Utah: 1995, 1996, and 1997.

Variety	**Two-row (2) Six-row (6)**	**Spring (S) Winter (W)**	**Irrigated (I) Dryland (D)**	**Test Weight (lbs/bushel)**	**Protein (percent)**	**Yield (bu per acre)**
Baronesse	2	S	D	50.3	15.2	52.6
Baronesse	2	S	I	54.1	14.3	114.7
Boyer	6	W	I	50.8	14.5	133.0
Bracken	6	S	I	50.7	14.1	116.0
Brigham	6	S	I	51.9	12.7	127.2
Brigham	6	S	D	49.7	14.4	61.5
Caribou	2	S	D	51.8	15.1	61.9
Century	6	S	I	52.7	13.8	136.7
Colter	6	S	D	50.2	12.6	60.2
Colter	6	S	I	52.5	11.8	120.9
Eight-twelve	6	W	I	50.2	14.2	134.0
Gem	6	S	D	48.3	13.6	61.7
Gwen	6	W	I	53.2	13.8	128.0
Hesk	6	W	I	51.3	14.9	131.4
Hundred	6	W	I	50.2	15.4	124.7
Kamiak	6	W	I	52.4	14.6	137.3
Kold	6	W	I	55.6	14.8	162.8
Koral	2	S	D	51.6	16.3	54.9
Maranna	6	S	I	50.5	13.7	106.1
Munsing	2	S	D	52.4	15.1	58.1
Otis	2	S	D	61.4	15.6	59.4
Perkins	6	W	I	55.1	14.6	130.0
Piroline	2	S	D	53.2	15.5	57.6
Post 90	6	W	I	52.6	14.9	123.4
Rollo	6	S	I	50.4	11.7	127.9
Russell	6	S	I	53.6	12.7	108.1
Schuyler	6	W	I	51.1	14.2	120.4
Scio	6	W	I	53.6	14.7	154.5
Showin	6	W	I	50.7	15.2	140.4
Statehood	6	S	I	50.9	13.7	134.5

Table 4. (Continued)

Variety	Two-row (2) Six-row (6)	Spring (S) Winter (W)	Irrigated (I) Dryland (D)	Test Weight (lbs/bushel)	Protein (percent)	Yield (bu per acre)
Steptoe	6	S	D	49.0	12.8	61.1
Steptoe	6	S	I	51.1	12.4	121.6
Targhee	2	S	D	50.7	15.1	50.9
Trebi	6	S	I	50.5	14.9	87.2
Walker	6	S	I	53.0	13.2	125.5
W.B.Sprinter	6	S	I	50.3	13.9	99.2

VARIETY DESCRIPTIONS

"Baronesse" two-row spring barley: Baronesse is a rough-awned medium maturing variety. It produces good yields of high test weight grain under both dryland and irrigated conditions. It is medium in height and has better straw strength than Steptoe.

"Boyer" six-row winter barley: Boyer is an awned winter barley that is only grown successfully in Utah under irrigated conditions. It is medium in height and has white chaff.

"Bracken" six-row spring barley: Bracken is an early maturing, smooth awned, feed barley. It is about the same height as Steptoe; the test weight is similar to Steptoe but the protein percentage averages 2 points higher than Steptoe. Bracken has brittle straw at maturity and requires careful attention at harvest to avoid excessive loss to shattering. Bracken is also susceptible to barley stripe and is not adapted to dryland conditions.

"Brigham" six-row spring barley: Brigham is a 1998 release from the Utah Agricultural Experiment Station. It is a high yielding, relatively short, stiff-strawed spring feed barley with flaring semi-rough awns. It is best adapted for production under high yielding irrigated conditions, but also performs reasonably well on dryland. Brigham's short, stiff straw suggests that it would be particularly well suited for production under wheel-line irrigation.

"Caribou" two-row spring barley: Caribou is a rough-awned, early maturing, white-kernel feed barley developed by Idaho and USDA. It is best adapted to dryland where it yields well, has good straw strength, test weight, and kernel weight.

"Century" six-row spring barley: Century is a 1996 release from the Utah Agricultural Experiment Station. It is a high-yielding, rough awned, spring feed barley best adapted for irrigated production. When compared to Steptoe, Century grows slightly taller, has better straw strength, higher test weight, and produces higher grain yields of higher protein content.

"Colter" six-row spring barley: Colter is a mid-season, white aleurone, six-rowed spring feed barley with relatively lax spikes and smooth awns. It was developed by the USDA in Idaho. In Utah tests, Colter yields less than Steptoe, but has better lodging resistance and higher test weights.

"**Eight-Twelve" six-row winter barley:** It is a high-yielding, mid-season cultivar. It is the same height as Hundred, slightly taller than Showin and is lodging resistant.

"Gem" six-row spring barley: Gem has smooth awns and matures early. It yields very well on dryland or, irrigated soils, where irrigation water is limited. It is highly susceptible to loose smut. Gem is often used as a companion crop for legume establishment because it matures early and offers less competition for light than most varieties because of its reasonably short plant height.

"Gwen" six-row winter barley: Gwen is a medium-height, medium-early maturing, and Barley Yellow Dwarf Virus-tolerant variety. It was developed in Oregon for the Pacific Northwest low-rainfall, shallow-soil sites. The test weight and yield are good under irrigated conditions.

"Hesk" six-row winter barley: Hesk is an awned winter barley developed in Washington. It is taller, matures about the same time, and lodges slightly more than Scio. Test weight of Hesk is similar to that of Scio.

"Hundred" six-row winter barley: Hundred was released from Washington, Idaho, and Oregon State Experiment Stations. It is a mid-season high-yielding variety. It was developed for dryland and irrigated conditions.

"Kamiak" six-row winter barley: Kamiak is a medium height winter barley from Washington. It has white chaff, is awned, and can be grown under irrigation or on dryland.

"Kold" six-row winter barley: a winter six row feed barley developed in Oregon and released in 1994-5 by the Oregon State University Experiment Station. Relatively tall statured but has good straw strength and high test weight.

"Koral" two-row spring barley: Otis and Koral varieties are similar in appearance and yield, and are best suited to the drylands of northern Utah. The varieties are well adapted in areas where frosts are likely to occur at or near heading time. They are usually superior in yield to six-row varieties grown under similar conditions.

"Maranna" six-row feed barley: a short stiff-strawed feed barley developed in Oregon and released in 1993 by the Oregon State University Agricultural Experiment Station. Smoothed awned white aleurone with semi-lax spikes. Lodges less than Steptoe. It is best suited for irrigated conditions.

"Munsing" two-row spring barley: Munsing is a short statured barley with white chaff that is used only on dryland. It is awned.

"Otis" two-row spring barley: See Koral.

"Perkins" six-row spring barley: Perkins is a moderate yielding, medium-height, moderately early variety with good test weight, good lodging resistance, and a satisfactory protein content. Perkins appears to be best adapted for irrigated production.

"Piroline" two-row spring barley: Piroline is a rough-awned variety grown on irrigated and drylands of northern Utah and southern Idaho. It yields well, threshes easily, and has a plump kernel. It is medium to tall when mature, yet is quite resistant to lodging. It is moderately resistant to smut.

"Post 90" six-row winter barley: Post 90 is a high-yielding, moderately-early, medium-height variety with good test weight, good straw strength, and average protein content. It is probably best adapted for production under irrigated conditions.

"Rollo" six-row spring barley: Rollo was released by the Utah Agricultural Experiment Station in 1990 as an irrigated spring feed barley. It is similar to Steptoe in height, test weight and protein content. It normally yields slightly higher than Steptoe, has stronger straw, and is more resistant to barley loose smut. Rollo is white chaffed and has smooth awns.

"Russell" six-row spring barley: Russell is a medium height spring malting barley. It has much better straw strength than Steptoe but yields less. It is rough-awned and slightly higher in protein content than Steptoe but has lower protein than Bracken or Walker.

"Schuyler" six-row winter barley: Schuyler is a winter feed barley from New York. It is moderately early, intermediate in height, and has moderate resistance to lodging. It is best adapted to irrigation but will do well on dryland.

"Scio" six-row winter barley: Scio is a winter variety developed in Oregon. It is shorter than Hesk, has very stiff straw with good lodging resistance and produces grain of average test weight. It is mid-season maturing but is susceptible to stripe rust.

"Showin" six-row winter barley: Showin is a late mid-season maturing, short height, awned variety. It produces good yields with medium test weight grain. It has a prostrate growth habit and is less winter hardy than Hesk, or Boyer.

"Statehood" six-row spring barley: Statehood is a 1996 release from the Utah Agricultural Experiment Station. It is a high-yielding, rough awned, irrigated spring feed barley variety. When compared to Steptoe, Statehood grows slightly shorter, is slightly lower in test weight, has significantly better straw strength, and produces higher grain yields of higher protein content.

"Steptoe" six-row spring barley: Steptoe is a rough-awned feed barley of medium height, and maturity. Under adequate moisture and fertility it gives excellent yields and good test weights. Steptoe is a very commonly planted variety in Utah. It is susceptible to stem rust, loose smut, can lodge severely, and is low in protein.

"Targhee" two-row spring barley: Targhee is a rough-awned barley that is best adapted to dryland conditions. It produces good yields of high test weight grain. It is not generally recommended for production under irrigation.

"Trebi" six-row spring barley: Trebi is medium in height, white chaffed, and awned. It is produced under irrigated conditions. It has weak straw and yields less than many newer varieties that are now available.

"Walker" six-row spring barley: Walker was released in 1990 by the Utah Agricultural Experiment Station as an irrigated feed barley. It is one to two inches taller than Steptoe, but has much stronger straw, which results in less lodging. Walker yields slightly more than Steptoe, and is higher in test weight and protein content. It is rough awned and white chaffed.

"W.B. Sprinter" six-row spring barley: West Bred Sprinter is a short stature feed barley with reasonably good straw strength and yield. It can be seeded either in the spring or in the fall. It heads quite late when seeded in the spring. W. B. Sprinter is intermediate in test weight.

MORE INFORMATION

Information is available for other small grains from your local County Extension office:
Oats (AG/Grains/02); Triticale (AG/Grains/03); Wheat (AG/Grains/04)
or from the Extension web page, ext.usu.edu

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