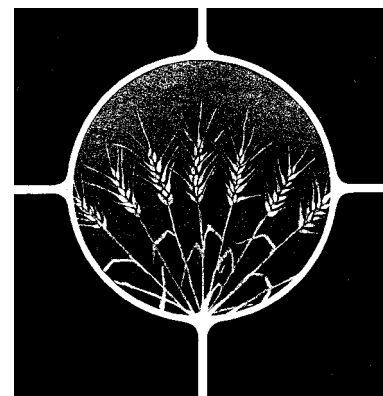


## SELECTING WHEAT VARIETIES FOR UTAH

Ralph E. Whitesides, David J. Hole, Rulon S. Albrechtsen,  
Shyrl M. Clawson, Val D. Thompson



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Department of Plants, Soils, & Biometeorology  
Utah State University

### 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 1976 edition of the "Small Grains Performance Trials," Research Report 158, published by the Utah Agricultural Experiment Station. Research Report 156 is available from the USU Extension Bulletin Room. Seed of many varieties of wheat not reported in this circular is available for crop production in Utah. The addition or deletion of a 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—SPRING PLANTED

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

Variety	Bushels per acre		
	Blue Creek	Nephi	Avg
Rick	35.2	37.0	36.1
Bannock	32.2	36.2	34.2
W.B 936	32.3	34.3	33.3
Fremont	28.0	32.2	30.1
Komar	26.0	30.2	28.1

### DRYLAND—FALL PLANTED

**Table 2.** 3-yr avg. for hard-red winter wheat varieties tested under dryland conditions in Utah: 1995, 1996, and 1997.

Variety	Bushels per acre						
	Nephi	Cedar Valley	Clarkston*	Monticello	Pocatello Valley	Blue Creek	Avg
Utah 100	47.8	22.1	57.9	30.8	44.8	63.3	44.4
Promontory	48.4	21.8	47.2	27.0	45.9	71.4	43.6
Manning	48.9	20.9	48.3	28.5	44.2	65.7	42.7
Weston	44.7	20.1	47.0	28.5	41.5	61.4	40.5
Blizzard	44.3	20.4	49.7	25.8	41.4	61.0	40.4
Bonneville	43.1	19.7	43.7	29.0	39.8	54.2	38.2
Hansel	40.8	19.3	42.8	27.0	35.2	52.6	36.3
Cache	37.6	18.6	38.1	24.6	31.2	49.0	33.2

\*Clarkston nursery not harvested in 1995, averages are from 1994, 1996, and 1997.

## IRRIGATED—SPRING PLANTED

**Table 3.** 3-yr avg. for hard-red (HR), hard-white (HW), and soft-white (SW) spring wheat varieties tested under irrigation in Utah: 1995, 1996, and 1997.

Variety	Kernal Type	Bushels per acre				Avg
		Logan	Riverside	Morgan	Palmyra	
Sylvan	HR	100.5	98.2	120.6	82.7	100.5
Rick	HR	100.8	96.0	114.6	91.9	100.8
Vanna	SW	102.5	99.6	120.6	87.4	102.5
Treasure	SW	103.4	102.5	116.9	90.9	103.4
Centennial	SW	104.2	106.7	115.8	90.2	104.2
Penawawa	SW	104.6	100.9	123.0	89.8	104.6
Fieldwin	SW	104.7	98.6	121.6	94.0	104.7
Klasic	HW	90.0	90.8	96.1	83.0	90.0
Vandal	HR	91.0	93.5	104.0	75.6	91.0
Fremont	HR	93.3	92.6	105.2	82.1	93.3
W.B. 936	HR	97.1	96.4	107.9	87.0	97.1
Whitebird	SW	99.1	93.8	116.9	86.6	99.1

## OVERVIEW OF TESTED VARIETIES

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

Variety	Hard Red (HR)	Spring (S) Winter (W)	Irrigated (I) Dryland (D)	Test Weight (lbs/bushel)	Protein (percent)	Yield (bushels per acre)
	Soft White (SW) Hard White (HW)					
Bannock	HR	S	D	68.9	15.2	34.2
Blizzard	HR	W	D	60.0	13.5	40.4
Bonneville	HR	W	D	60.2	13.7	38.2
Cache	HR	W	D	60.1	14.2	33.2
Centennial	SW	S	I	61.3	12.5	92.3
Daws	SW	W	I	56.9	12.9	137.3
Fieldwin	SW	S	I	60.8	13.3	88.8
Fremont	HR	S	D	59.3	13.9	86.7
Fremont	HR	S	I	60.5	14.0	93.3
Garland	HR	W	I	57.5	13.4	137.7
Hansel	HR	W	D	60.0	13.7	36.3
Hill 81	SW	W	I	60.0	12.6	128.8
Klasic	HW	S	I	60.6	14.0	82.2
Komar	HR	S	D	68.1	15.3	28.1
Lambert	SW	W	I	58.5	12.5	136.2
Lewjain	SW	W	I	57.4	12.6	128.0
Manning	HR	W	D	60.2	12.8	42.7
Meridian	HR	W	I	58.6	12.8	128.0
Nugaines	SW	W	I	57.6	12.2	128.4
Penawawa	SW	S	I	59.3	13.4	88.8
Promontory	HR	W	D	61.5	12.6	43.6
Rick	HR	S	D	68.6	14.0	36.1
Rick	HR	S	I	59.9	13.3	89.2
Sylvan	HR	S	I	59.9	14.4	85.0
Treasure	SW	S	I	59.1	12.7	87.5
Utah 100	HR	W	D	58.8	12.9	44.4
Vandal	HR	S	I	59.5	15.0	82.7
Vanna	SW	S	I	60.0	12.8	93.2

W.B. 936	HR	S	D	66.6	16.2	33.3
W.B. 936	HR	S	I	59.2	15.0	77.2
Weston	HR	W	D	61.3	13.8	40.5
Whitebird	SW	S	I	61.6	12.7	87.9

## IRRIGATED—FALL PLANTED

**Table 5.** 3-yr avg. for hard-red (HR) and soft white (SW) winter wheat varieties tested under irrigation in Utah: 1995, 1996, and 1997.

Variety	Kernal Type	Bushels per acre	
		Logan	
Promontory	HR	139.9	
Garland	HR	137.7	
Daws	SW	137.3	
Lambert	SW	136.2	
Hill 81	SW	128.8	
Nugaines	SW	128.4	
Lewjain	SW	128.0	
Meridian	HR	121.1	

## VARIETY DESCRIPTIONS

**“Bannock” hard-red spring wheat:** Bannock is a medium-height, awned, white-chaffed wheat from Idaho. It is adapted to dryland where it gives good yields of quality grain with good bread-making characteristics. A primary use for Bannock is for reseeding winter-killed, winter wheat on drylands. It has moderately stiff straw and will stand well under dryland conditions.

**“Blizzard” hard-red winter wheat:** Blizzard is a white-chaffed, awned, dryland variety released by Idaho. It has excellent dwarf smut resistance, satisfactory milling and baking quality. Blizzard is similar to Manning in height and test weight, is slightly lower in yield, and slightly higher in protein content.

**“Bonneville” hard-red winter wheat:** Bonneville is an awned, white chaffed dryland variety released by the University of Idaho. It has excellent dwarf smut resistance and snow mold tolerance, moderate stripe rust resistance, and excellent to good baking quality. Drought tolerance is moderate and its heading date is later when compared with Manning or Blizzard.

**“Cache” hard-red winter wheat:** Cache winter wheat is tall and has white-chaff. It is distinctive because it does not have awns and is produced only under dryland conditions.

**“Centennial” soft-white spring wheat:** Centennial is an early season soft white spring wheat, with short, stiff straw, white-chaff, good test weight and high yield, particularly under irrigated conditions. Centennial was developed by the University of Idaho.

**“Daws” soft-white winter wheat:** Daws is an awned white-chaffed winter wheat from Washington. It is taller than Stephens with moderate to severe lodging problems. Daws has good resistance to dwarf and common bunt with slight to moderate susceptibility to mildew. Daws is lower yielding than Stephens but is more winter hardy than Stephens, Lewjain, and Hill 81.

**“Fieldwin” soft-white spring wheat:** Fieldwin is an awned, white-chaffed, semi-dwarf wheat developed and released by Idaho. It is stiff-strawed and matures one to two days later than Fielder. Its height is similar to Fielder. Yields have been variable in Utah but are comparable to Fielder and Twin.

**“Fremont” hard-red spring wheat:** Fremont is a white-chaffed, awned, semi-dwarf from Utah. It is relatively early and has stiff straw. Fremont is recommended primarily for production under irrigation and high fertility. It has satisfactory bread making characteristics when the protein content is maintained at a suitable level.

**“Garland” hard-red winter wheat:** Garland is a 1993 Utah release which is highly resistant to dwarf smut and mildew with high yields. The variety is a white-chaffed, awned, and short in height. It has been released as a replacement for Ute. Garland is recommended for irrigation only.

**“Hansel” hard-red winter wheat:** Hansel is a Utah release which is highly resistant to dwarf smut with good baking quality. The variety is bronze-chaffed, awned, and medium to tall in height. It has yielded well and is resistant to stripe rust with fair-to-good snow mold tolerance.

**“Hill 81” soft-white winter wheat:** Released in Oregon, this variety is taller than Stephens, Daws, or Lewjain. It is awned with large heads that may cause moderate to severe lodging problems. Hill 81 has limited winter hardiness but has acceptable resistance to common and dwarf bunt and is only slight susceptibility to mildew.

**“Klasic” hard-white spring wheat:** Klasic is a short, early, stiff-strawed spring wheat with good test weight and generally high protein content. Klasic produces a hard white kernel and is used primarily as a high quality bread wheat. Yields of Klasic are generally lower than those of other named varieties in Utah tests. Klasic was developed and released by Northrup King seed company.

**“Komar” hard-red spring wheat:** Komar is a tall, white-chaffed, awned wheat adapted to dryland production. It has fair milling and baking qualities and is commonly used to thicken stands of winter-killed winter wheat. It does quite well when seeded early.

**“Lewjain” soft-white winter wheat:** Lewjain is very similar in appearance and growth habit to Stephens. Released in Washington, Lewjain occasionally has severe problems with lodging but is resistant to common and dwarf bunt. It is awned and has plump kernels.

**“Manning” hard-red winter wheat:** Manning is a bronze-chaffed, awned variety from Utah. It is a high-yielding variety with excellent resistance to dwarf smut. It has moderate height and is particularly well suited to dryland areas with better-than-average moisture, where lodging is often a problem. When soil conditions are marginal for seed germination Manning is often slow to emerge. It has good tolerance to snow mold.

**“Meridian” hard-red winter wheat:** Meridian is a semi-dwarf irrigated variety developed by the Idaho Agricultural Exper. Station. It is awned with white chaff and is late heading when compared with Garland or Stephens. Drought tolerance is poor but has moderate resistance to dwarf smut and stripe rust with good straw strength and lodging resistance.

**“Nugaines” soft-white winter wheat:** Nugaines is a white-chaffed, awned semi-dwarf from Washington State. Under high moisture and high fertility this variety produces high yields with minimum lodging. It is resistant to common bunt and tolerant of stripe rust. Nugaines is superior to Gaines in test weight. Foot-rot is sometimes a problem in this variety. It is adapted to irrigated land only.

**“Penawawa” soft-white spring wheat:** Penawawa is a white-chaffed, short, early, stiff-strawed soft white spring wheat developed at Washington State University. It is best adapted to irrigated conditions, where it produces high yields with grain of high test weight and good pastry quality.

**“Promontory” hard-red winter wheat:** Promontory is a bronze-chaffed, awned variety released by the Utah Agricultural Experiment Station in 1991. It resembles Manning in height, protein content, dwarf smut resistance, snow mold tolerance, and milling and baking characteristics. Compared to Manning, it is usually 1 to 2 bushels higher in yield and 1 to 2 pounds heavier in test weight. It is primarily a dryland variety which will perform best under better than average moisture. It will also likely find some use under limited irrigation.

**“Rick” hard-red spring wheat:** Rick was developed and released by the Utah Agricultural Exper. It is awned, white-chaffed, and is of medium height. It has good test weight and is suitable for dryland or irrigated production in Utah.

**“Sylvan” hard red spring wheat:** released jointly by Utah and Colorado Agricultural Experiment Stations in 1995. It has high grain yield, superior test weight and excellent bread making quality when produced under irrigation.

**“Treasure” soft white spring wheat:** released by Idaho, good yielding under irrigated conditions. Strong-strawed semi-dwarf irrigated spring wheat.

**“Utah-100” hard-red winter wheat:** Utah-100 is an awned, bronze chaffed dryland variety developed by the Utah Agricultural Experiment Station. It is taller in height than Manning or Promontory and is resistant to common and dwarf bunt. It is best adapted for low precipitation areas of Utah. Baking quality is similar to Manning, however, it has slightly higher protein and slightly lower test weight grain.

**“Vandal” hard-red spring wheat:** Vandal is a full season, short, white-chaffed hard red spring wheat released by the University of Idaho in cooperation with the USDA in 1991. It is best adapted to irrigated production under conditions where it can consistently be seeded early. Under these conditions, Vandal usually produces good yields of high protein grain of good milling and baking quality.

**“Vanna” soft white spring wheat:** a privately released (1995) high yielding semi-dwarf soft white spring wheat for irrigated conditions.

**“Westbred 936” hard red spring wheat:** Westbred 936 is a replacement for Westbred 906R and Westbred 926 in irrigated areas. It is awned, white chaffed, stiff strawed, early seasoned, semi-dwarf variety with high test weight and yield potential. It is tolerant to stripe rust but only moderately tolerant to stem and leaf rust and susceptible to powdery mildew.

**“Weston” hard-red winter wheat:** Weston was developed by the University of Idaho. It is a relatively early variety with good dwarf smut and stripe rust resistance. It is taller in height than Manning or Utah-100, bronze-chaffed, awned, with stiff straw. It has moderate tolerance to snow mold. Seedling emergence is good under marginal soil moisture.

**“Whitebird” soft white spring wheat:** released by Idaho, good yielding under irrigated conditions Strong strawed semi-dwarf irrigated spring wheat.

#### MORE INFORMATION

Information is available for other small grains from your local County Extension office:  
Barley (AG/Grains/01); Oats (AG/Grains/02);  
Triticale (AG/Grains/03)  
or from the Extension web page, [ext.usu.edu](http://ext.usu.edu)

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