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Spring Grain Varieties for 2002

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Spring Grain Varieties for 2002

John P. Bassinette, Russ Karow, Nathan Blake, Karl Rinehart, Rhonda Bafus, Mylen Bohle, Don Clark, Eric Eldredge, Pat Hayes, Erling Jacobsen, Jim Peterson, Steve Petrie, Ken Rykbost, Clint Shock, Jim Smith [1]

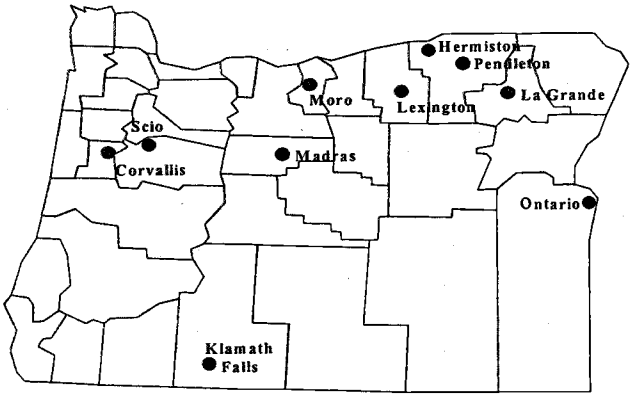
This publication describes spring wheats, barleys, oats, and triticales commonly grown in Oregon and provides, when available, yield and agronomic data to aid in variety selection. The wheat, barley, and triticale data presented in this publication were generated through a statewide variety testing program. This program was initiated in 1992 with funding and support dollars provided by the Oregon State University Extension Service, Oregon Agricultural Experiment Station, Oregon Wheat Commission, and Oregon Grains Commission. The 2001 program was centrally coordinated by John Bassinette and Russ Karow and involved research cooperators at five experiment stations across Oregon. Grower cooperators make small plot testing possible at four sites. This year, the spring wheat trials were split by market classes (hard and soft) and managed for desired protein levels by varying applied nitrogen rates.

Without the support of these funding organizations and the research and grower cooperators, these data would not be available. Please be sure to thank these groups and people for their contributions if you find this information beneficial. We also thank Barbara Reed, office specialist in Crop and Soil Science, for assistance with this and other Extension publications. Without her skills, these publications would not exist.

If you have comments about or suggestions for improvement of this publication, please contact Russ Karow, Extension cereals specialist (541-737-2821), or John Bassinette, senior faculty research assistant (541-737-5858), Crop Science Bldg., Room 109, Oregon State University, Corvallis, OR 97331-3002 (FAX: 541-737-1589). Individual site data and data for other years are available on the Cereals Extension home page at http://www.css.orst.edu/cereals/.

Site	Coordinator/ Grower Cooperators
Corvallis	Bassinette/Karow
Hermiston	Blake/Petrie
	Grower: Larry Carrol
Klamath (mineral)	Clark/Smith
Klamath (muck)	Clark/Smith
	Grower: Sam Hensel
La Grande	Blake/Petrie
	Grower: John Cuthbert
Lexington	Blake/Petrie
	Grower: Chris Rauch
Madras	Bafus/Bohle
Moro	Blake/Petrie/Jacobsen
Ontario	Eldredge/Shock
Pendleton	Blake/Petrie
Scio	Bassinette/Karow
	Grower: Carl Haugerud

Statewide cereal variety testing program locations and site information.



Location	Elev.	GDD[1]	Precip.	Type
	(ft)		(in)	
Corvallis	230	2052	43	Dryland
Hermiston	450	2824	9	Irrigated
K. Falls (mineral)	4100	1973	14	Irrigated
K. Falls (muck)	4034	-	14	Irrigated
La Grande	2770	1830	14	Irrigated
Lexington	1200	2294	10	Dryland
Madras	2230	1917	10	Irrigated
Moro	1870	1988	11	Dryland
Ontario	2230	2868	10	Irrigated
Pendleton	1490	2278	16	Dryland
Scio	500	2100	55	Dryland

[1] Yearly growing degree day total using a 50 °F base temperature.

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Factors to Consider When Selecting Varieties

Yield often is the key factor in variety selection, but other characteristics also can be important. As you look through the data tables in this publication, you will discover that yield performance of recently released varieties often is quite similar. Rarely do we find one variety that consistently outyields all others. This is not surprising, because intensive breeding efforts have improved the yield potential and stability of grains in general. What this means to you is that factors other than yield can receive greater attention as you select varieties to grow on your farm. Consider the following criteria as you think about variety selection.

Height and Lodging. Varieties differ in height and lodging resistance. Though generally correlated, taller varieties do not necessarily exhibit increased lodging. Lodging reduces grain yield and quality and can significantly increase harvest costs. As soil fertility levels increase, stiffer-strawed varieties should be used. Excessive early nitrogen applications tend to cause lodging in some irrigated situations.

Disease/Stress Resistance. Diseases can be a major production problem; however, type of disease and disease pressure vary from location to location and from year to year. Select cultivars with resistance or tolerance to the diseases and stresses commonly found in your area. Barley yellow dwarf virus and leaf rust are the most common diseases of spring grains. Russian wheat aphids have occasionally devastated spring grain crops, especially late-planted crops, in production areas east of the Cascade Mountains. None of the currently available spring wheats, barleys, or triticales is resistant to Russian wheat aphid, but oats are immune. Adage and Gaucho seed treatment insecticides can suppress aphids in some situations. Barley stripe rust can dramatically reduce barley grain yield if infestations occur early in the growing season. To date, this disease has been of economic significance only in the Klamath Basin but has been found throughout the state. Resistant varieties are now available (see Table 3). Two-row varieties can be infected but generally are more tolerant of the disease than six-row types. Grow a two-row type if seed for a resistant variety is not available. Crown rust of oat was a major problem in late-planted fields in western Oregon in 1998. However, the outbreak was not of economic importance then nor has it been since. None of the currently grown varieties is resistant. Monitor fields and use a fungicide if needed.

Maturity. As a group, barleys mature earlier than other grains; oats later. However, varieties differing in rate of maturity exist within each grain type. Early-maturing varieties may avoid yield and quality reductions caused by heat or drought in late summer. Later maturing varieties may yield more when moderate temperatures and favorable moisture conditions persist into late summer; however, stem rust and other diseases favored by warm weather may become a problem. Choose varieties with a maturity that matches your environment and cropping needs. Where moisture is not limiting, oats tend to fare better than the other grains in very late seedings.

Intended Use. Barley varieties are classified either as feed, malting or forage types. Feed types generally have a higher protein content than malting types. Those listed as malting types have been approved by the American Malting Barley Association (AMBA). Forage types generally are intended for hay or silage and not grain production. Oats are used as animal feed, for cover crop, and as human food. Some varieties are better suited for specific end uses than others. Otana, Monida, and Border are preferred food-type oats. Most oat varieties can be used for forage. Soft white wheats, both common and club, winter and spring, have occupied more than 90 percent of Oregon's wheat acreage in recent years. Hard red wheats most often are grown in irrigated areas, but spring dryland production is increasing. Triticales are grown for forage and feed grain use.

Grain Quality. Test weight (bushel weight) is a price-determining factor in the marketplace. Choose varieties with good test weight records. All Pacific Northwest (PNW)-released varieties meet minimum quality standards established by PNW breeders, but suitability for different end use applications can vary. Premiums have been paid for low-protein soft white wheat and high-protein hard wheat in recent years. Varieties differ in grain protein potential. This potential is greatly influenced by environment and nutrient management. As a rule, spring grains have higher protein levels than winter grains. This is likely due to environmental, rather than genetic, causes.

Yield Potential. Yield potential varies from variety to variety and, for a given variety, from area to area and year to year. Yield potential is a genetic trait but is moderated by other factors such as disease and stress tolerance. To evaluate the yield potential of a variety, review data from test sites with an environment similar to that in your area. Where possible, compare performance over several years, as a single year's data can be misleading.

Variety Descriptions

The following descriptions are designed to provide key information about commonly grown varieties. Material for these descriptions was drawn from the tables in this publication, Certified Seed Buyers Guides distributed by Washington State Crop Improvement Association, and variety release descriptions.

Wheats

Agronomic characteristics, disease ratings, and yield data for wheats are presented in written or tabular form. Table contents are:

New Releases

CHALLIS (BZ 692-108) is a soft white, semi-dwarf spring wheat developed by Western Plant Breeders. Challis has good test weight and performs well under dryland conditions. It has acceptable milling and baking properties. Challis is susceptible to Hessian fly and has moderate resistance to stripe rust.

HANK is a hard red spring wheat developed by Western Plant Breeders. It has good yield and high grain protein potential. Milling and baking properties also are very good. Hank is Hessian-fly-tolerant and is resistant to stripe rust.

JUBILEE (IDO 525) is a soft white, semi-dwarf spring wheat released by the University of Idaho in 2001. Jubilee is adapted to both rain-fed and irrigated production zones. Jubilee has adult plant resistance to stripe rust but is moderately susceptible to leaf rust and susceptible to Hessian fly. Milling and baking quality of Jubilee is better than most currently available soft spring wheat cultivars.

LOLO (IDO 533) is a hard white, semi-dwarf spring wheat released by the University of Idaho in 2001. Lolo is a high input line with better lodging resistance and is more responsive to nitrogen inputs than ID-377S. Lolo has resistance to PNW rust races but is susceptible to Hessian fly. Lolo has excellent baking characteristics for Asian noodle markets.

TARA (WA 7824) is a hard red, semi-dwarf spring wheat released by WSU-USDA-ARS in 2000. It is intended for higher rainfall (>16 inch) production zones. It is resistant to stripe rust and moderately resistant to leaf rusts. It has superior milling and baking characteristics compared to currently available hard red varieties.

Commonly Grown Varieties

Common Soft White

ALPOWA is a white-chaffed, awned, soft white released by WSU in 1993. It was intended as a replacement for Penawawa, but both varieties are being grown. Alpowa has slightly higher yield and test weight than Penawawa and better stripe rust resistance. Milling and baking characteristics of Alpowa are average.

ZAK (WA7850) is a soft white spring wheat released by WSU in 2000. It is targeted as a replacement for Penawawa and Alpowa due to its yield potential and for Wawawai due to its Hessian fly resistance. It is slightly taller than and similar in heading date to Penawawa and Alpowa. Zak has excellent stripe and moderate leaf rust resistance. Foundation-registered seed will be available in 2002.

PENAWAWA is a white-chaffed, awned, semi-dwarf released by WSU in 1985. Penawawa has been the dominant spring wheat variety in Oregon and is still competitive, in terms of yield, with newer varieties. Alpowa was released as a replacement for Penawawa. Milling and baking characteristics of Penawawa are average.

WAWAWAI was released by WSU in 1994 as a replacement for Wakanz. Both varieties have good Hessian fly resistance. Zak is likely to supplant Wawawai.

WHITEBIRD is a white-chaffed, awnless, semi-dwarf released by the University of Idaho in 1996. It is intended as a Penawawa replacement, but Oregon data suggest similar performance at best.

Hard White

ML455 is a hard white wheat developed by Fossum Cereals, Bellingham, WA. It is a late-season variety with good yield potential and promise as a noodle wheat due to superior flour color. ML455 is being grown under contract. Contact Pro-Mar at 1-800-949-0669 for contract information.

WINSOME (OR4870453) is a white-chaffed, awned, hard white spring wheat released by OSU in 2000. Yields have been similar to IDO377S. Winsome is late maturing and has lodging-resistant, stiff straw. Winsome has shown superior performance in Asian noodle products. Foundation and registered seed is available.

IDO377S is a hard white released in 1996 under an exclusive license to Pro-Mar, a growers' cooperative. The cooperative controls seed stock, planted acreage, and harvested grain. Pro-Mar is preserving the identity of individual grain lots and marketing to niche domestic and international markets. For more information about Pro-Mar and production contracts, call 1-800-949-0669.

Hard Red

SCARLET (WA7802) is a high-yielding, superior-quality hard red spring wheat for use in the semi-arid production regions of the PNW. Scarlet was released by Washington State University (WSU) in 1998. Yields have equaled or surpassed those of soft whites in many environments. Scarlet is taller than other commonly grown hard reds and appears to be slightly more prone to lodging. Protein levels have been similar to those of other commonly grown hard reds when grown under semi-arid conditions.

IONA (IDO492) is a hard red spring wheat released by Idaho in 1999. It is a tall, semi-dwarf variety adapted to rain-fed production at higher elevations. It has shown excellent yield potential and grain quality in Idaho testing. Iona exhibited only average yield, test weight, and protein levels in 2001 Oregon statewide trials.

JEFFERSON (IDO462) is a high-yielding, hard red spring wheat released by the University of Idaho in 1998. It has shown above-average yield and test weight performance across locations. Yields have equaled or surpassed those of soft whites in many environments. Protein levels have been similar to those of other commonly grown hard reds. It is taller than other commonly grown hard reds and appears to be slightly more prone to lodging.

WESTBRED 936 was released by Western Plant Breeders in 1992. Yield potential and shatter resistance are superior to those of earlier WPB varieties. WPB936 is susceptible to leaf rust and Hessian fly.

YECORA ROJO is a white-chaffed, awned, semi-dwarf released by California in 1975. Yield potential is lower than many other hard red varieties. It is resistant to Hessian fly, and its short stature makes it a variety of choice in some irrigated environments.

Club Wheat

CALORWA is a spring club wheat. It was released by California, Oregon, and Washington in 1994. Yields, quality, and seed characteristics are marginal. A new spring club wheat may be available soon through WSU-USDA-ARS.

Durum

WESTBRED 881 is a spring durum released by Western Plant Breeders in 1984. Yields typically are lower than other spring wheats. Some acreage has been grown under contract in the Pendleton area.

Barley

Agronomic characteristics, disease ratings, and yield data for barleys are presented in written or tabular form. Table contents are:

New Releases

FARMINGTON (WA9504-94) is a two-row, semi-dwarf spring feed barley released by WSU, USDA-ARS in 2001. It is best adapted to higher yielding production zones in eastern Washington. Farmington has resistance to barley stripe rust and this may give it a yield advantage over currently available but susceptible varieties. Seed should be available in 2002.

SARA is a six-row, hooded, spring barley released by OSU in 2001. Grain yield of Sara is less than other current varieties but it is intended for forage and not seed production. Sara has resistance to stripe rust. Sara has been released on a 4-year exclusive license to Winema Elevators.

BANCROFT (78Ab10274) is a tall, two-row, feed barley released by the University of Idaho (UI) in 2000. Bancroft is a mid-season variety with average yield potential but has barley stripe rust resistance.

Commonly Grown Varieties

Malt Type

CHINOOK is a two-row malt barley released by Montana State University in 1995. It has a moderate level of barley stripe rust resistance. It is later maturing, as are many of the two-row malts, and slightly taller than commonly grown feed barleys.

HARRINGTON is a two-row malt released by the University of Saskatchewan in 1986. It appears to be the best dryland malt variety available at this time. Great Western Malting has purchased some Harrington on the open market.

Feed Type

ORCA is a two-row feed barley released by Oregon State University (OSU) in 1998. It is resistant to barley stripe rust. It has exhibited average yield potential and above-average test weight across environments. It appears to be best suited to higher-elevation, cool-season, or irrigated environments. All classes of certified seed are available.

TANGO (SR58-4) is a six-row, stripe-rust-resistant feed barley released by OSU in 1999. Tango is a doubled haploid variety derived from an Orca-sib x Steptoe cross with Steptoe as the recurrent. In essence, it is Steptoe with stripe rust resistance, smooth awns instead of rough, and no dormancy. Yields have been similar to those of Steptoe.

VALIER is a two-rowed, white-kernelled, midseason spring barley released by Montana State University in 1999. Valier has superior feed value compared to Baronesse.

BARONESSE is a two-row feed barley released by Western Plant Breeders in 1992. It has exhibited excellent yield potential and above-average test weights across locations. It is later maturing than Steptoe. Baronesse is the dominant barley in Oregon.

STEPTOE is a six-row feed barley released by WSU in 1973. It had been the dominant spring barley in Oregon for nearly 2 decades. It is resilient and adapted to most production environments. It is susceptible to lodging in high-production environments and generally has lower test weights and protein levels. It appears to have some tolerance to barley stripe rust. Steptoe has some dormancy, and volunteer grain can be a problem.

Oats

Agronomic characteristics and disease ratings for oats are presented in Table 4. Agronomic performance data for Cayuse, Lamont, and Provena can be found in soft wheat tables.

CAYUSE is a yellow-hulled oat released by WSU in 1966. It is the most popular cultivar in the PNW at this time. It is early-maturing, short in stature, and has good lodging resistance. It has fair tolerance to barley yellow dwarf virus (BYDV).

KANOTA is a red oat (*Avena byzantina*) released in Kansas during the 1920s. It is grown for hay. It is similar in maturity to Cayuse. Kanota is taller than most grain cultivars and has finer stems. Grain yields generally are low.

LAMONT (86Ab1616) is a hulless oat released by the University of Idaho and the Agricultural Research Service in 1999. It has shown superior yield to older hulless varieties and is better suited to dryland environments than Provena, another new hulless oat release.

MONIDA is a white-hulled oat released by the University of Idaho and USDA-Agricultural Research Service in 1985. It is the progeny of an Otana/Cayuse cross. It is mid-to-late season, similar in height to Otana, and has a test weight intermediate to that of Otana and Cayuse. It has good milling characteristics. Lodging resistance is good.

MONTEZUMA is a red hay oat (*Avena byzantina*) released by California in 1969. It is early-maturing and short statured. Lodging resistance is good.

PROVENA (88Ab3073) is a hulless oat released by the University of Idaho and the Agricultural Research Service in 1999. It has shown superior yield to older hulless varieties. Due to its shorter stature, Provena is better suited to high-rainfall and irrigated environments than is Lamont.

Triticales - see wheat tables

TRICAL 2700 was released by Resource Seeds in 1993. It is a facultative variety usually planted in the spring. It is tall and awned, intended for use as both grain and forage. Lodging resistance is excellent. Yields have been good across environments. Seed is available through Round Butte Seeds in central Oregon (541-546-5222).

Table 1. — Agronomic data for soft white, hard white, hard red, and durum spring wheat and triticale varieties.

Variety	Release date	Origin[1]	Height[2]	Head type	Maturity[3]	Lodging[4]
Soft white club						
Calorwa	1994	WA	S-M	Awned	E	R
Soft white common						
Alpowa	1993	WA	M-T	Awned	M	R
Centennial	1990	ID	M	Awned	E-M	R
Dirkwin	1978	ID	M	Awnless	E-M	R
Challis	2001	P-WPB	M-T	Awned	M	R
Jubilee	2001	ID	M	Awned	M	R
Penawawa	1985	WA	M	Awned	M	R
Pomerelle	1996	ID	M	Awned	M-L	R
Skagit	1997	P-FC	M	Awned	M	R
Treasure	1986	ID	M	Awned	L	MR
Wakanz	1988	WA	M	Awned	L	MR
Wawawai	1994	WA	M-T	Awned	M	R
Westbred Vanna	1992	P-WPB	M	Awned	M	R
Whitebird	1996	ID	M	Awned	M	R
Zak	2000	WA	M-T	Awned	M	R
Hard white						
IDO377S	1995	ID	M	Awned	E-M	MR
Klasic	1982	P-NK	S	Awned	E	R
Lolo	2001	ID	M	Awned	E-M	MR
ML455	1998	P-FC	M	Awned	M-L	MR
Winsome	2000	OR	M	Awned	M-L	R
Hard red						
Hank	2000	P-WPB	M	Awned	M	R
Iona	1999	ID	T	Awned	E-M	MS
Jefferson	1998	ID	M	Awned	E-M	MR
McKay	1981	ID	M	Awned	E-M	MR
Scarlet	1998	WA	M-T	Awned	M	MR
Spillman	1989	WA	M	Awned	M-L	MR
Tara	2000	WA	M	Awned	E	R
Westbred 926	1987	P-WPB	M	Awned	E	R
Westbred 936	1992	P-WPB	M	Awned	E-M	R
Westbred Express	1990	P-WPB	M	Awned	M	R
Yecora Rojo	1975	CA	S	Awned	E	R
Durum wheats						
Westbred 881	—	P-WPB	S-M	Awned	E-M	R
Triticales						
Trical 2700	1993	P-RS	T	Awned	M	R
Trical Victoria	1988	P-RS	M-T	Awned	M	R

[1]CA = California, ID = Idaho, OR = Oregon, WA = Washington, P = private (FC = Fossum Cereals, NK = Northrup King, RS = Resource Seeds, WPB = Western Plant Breeders, WS = World Seeds) [2]M = medium, S = short, T = tall [3]E = early, M = midseason, L = late [4]R = resistant, MR = moderately resistant, MS = moderately susceptible

Table 2. — Disease ratings of soft white, hard white, hard red, and durum spring wheat and triticale varieties.

Variety	Rust			Powdery mildew	Black chaff	Black point	Hessian fly
	Stripe	Leaf	Stem				
Soft white club							
Calorwa	MR	R	R	MR	—	—	S
Soft white common							
Alpowa	MR	MR	MS	—	—	—	S
Centennial	MR	MS	R	—	—	—	S
Challis	MR	MR	—	—	—	—	S
Dirkwin	MR	MS	S	MR	S	MS	S
Jubilee	R	MS	—	—	—	—	S
Penawawa	MR	MR	MS	S	MS	MS	S
Pomerelle	R	MS	R	—	—	—	—
Treasure	R	MS	R	S	MS	MS	S
Wakanz	MR	MR	S	MS	—	—	R
Wawawai	MR	MR	R	R	—	—	R
Westbred Sprite	MR	MR	MS	R	—	—	S
Westbred Vanna	MR	R	MS	R	—	—	S
Whitebird	R	MR	MR	—	—	—	—
Zak	R	MR	—	—	—	—	R
Hard white							
IDO377S	R	MR	—	S	—	—	S
IDO533	R	R	—	—	—	—	S
Klasic	MR	R	R	—	—	—	S
Lolo	R	R	—	—	—	—	S
Winsome	MR	R	—	—	—	—	S
Hard red							
Hank	R	R	R	—	—	—	MR
Iona	R	MS	—	—	—	—	S
Jefferson	R	MS	—	—	—	—	MR
McKay	R	R	MR	MR	MR	MS	—
Scarlet	MR	R	—	MR	—	—	S
Spillman	R	R	R	R	S	—	S
Tara	R	MR	—	—	—	—	MR
Westbred 926	R	R	R	R	—	—	R
Westbred 936	R	MS	R	—	—	—	MS
Westbred Express	R	R	R	R	—	—	S
Yecora Rojo	MS	S	R	R	—	—	R
Durum wheats							
Westbred 881	S	MR	MR	MR	—	MR	—
Triticale							
Trical 2700	R	—	—	—	—	—	—
Trical Victoria	R	MS	T	R	—	—	—

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, T = tolerant, VS = very susceptible, — = unknown

Table 3. — Agronomic data for spring barleys.

Variety	Release date	Origin[1]	Head type	Plant height[2]	Straw strength	Heading date[3]	Stripe rust resistance[4]
Malt types							
Chinook	1995	MT	2-row	M-T	Mod.-stiff	M-L	T
Crest	1992	WA	2-row	M	Mod.-stiff	M-L	T
Crystal	1989	ID	2-row	M	Stiff	M-L	T
Excel	1990	MN	6-row	M	Mod.-stiff	M	S
Galena	1993	P-Coors	2-row	S	Stiff	L	T
Harrington	1986	SK	2-row	M	Stiff	M	T
Morex	1978	MN	6-row	M-T	Mod.-stiff	E-M	S
Russell	1985	ID	6-row	M	Stiff	E-M	S
Stander	1993	MN	6-row	M-T	Mod.-stiff	M	R
Feed types							
Bancroft	2000	UI	2-row	T	Mod.	M	R
Baronesse	1992	P-WPB	2-row	M	Mod.-stiff	M	T
Colter	1991	ID	6-row	M	Stiff	E-M	S
Columbia	1979	P-Germains	6-row	M	Stiff	M	S
Farmington	2001	WA	2-row	s	Mod.	L	R
Gallatin	1986	MT	2-row	M	Mod.-stiff	M	T
Gus	1976	P-WPB	6-row	S	Stiff	M	S
Gustoe	1983	P-WPB	6-row	S	Stiff	M	S
Idagold	1996	P-Coors	2-row	S	Stiff	L	T
Lindy	1983	P-Cenex	6-row	M	Mod.-stiff	M	S
Lud	1975	P-Cenex	6-row	T	Stiff	L	S
Maranna	1993	OR	6-row	S	Stiff	M-L	S
Medallion	1991	P-WPB	6-row	M	Mod.-stiff	M	S
Menuet	1980	P-Cenex	6-row	M	Stiff	M	S
Orca	1998	OR	2-row	M	Stiff	E	R
Payette	1993	ID	6-row	S	Stiff	M-L	S
Steptoe	1973	WA	6-row	M	Mod-stiff	E	S
Tango	1999	OR	6-row	M	Mod.-stiff	E	R
Valier	1999	MT	2-row	M	Stiff	M	T
Xena	1999	P-WPB	2-row	M	Mod.-stiff	E-M	T
Hooded types							
Belford	1943	WA	6-row	M-T	Weak	M	S
Horsford	1880	MT	6-row	M-T	Weak	M	S
Sara	2001	OR	6-row	M	Weak	M	R
Washford	1996	WA	6-row	M-T	Mod.-stiff	M	S
Hulless types							
Bear	1996	WA	6-row	M	Moderate	L	S
Waxbar	1990	P-WPB	6-row	T	Weak	L	S

[1] ID = Idaho, MN = Minnesota, MT = Montana, OR = Oregon, P = private company release, SK = Univ. of Saskatchewan, WA = Washington, WPB = Western Plant Breeders
[2] S = short, M = medium, T = tall
[3] E = early, M = mid-season, L = late
[4] T = tolerant, S = susceptible, R = resistant

Table 4. — Agronomic characteristics of spring oats.

Variety	Release date	Origin[1]	Species[2]	Hull color[3]	Maturity[4]	Height[5]
Ajay	1991	ID	*A. sativa*	LY	L	S
Appaloosa	1978	WA	*A. sativa*	Y	M	M
Border	1982	WY	*A. sativa*	W	M	M
Calibre	1983	CN	*A. sativa*	Y	L	T
Cayuse	1966	WA	*A. sativa*	Y	E	M
Drummond	1994	Astrla	*A. sativa*	T	M	S
Kanota	1916	KN	*A. byzantina*	R	E	M
Lamont	1999	ID	*A. sativa*	hulless	L	T
Minimax	1990	P-NWPB	*A. sativa*	T	L	VS
Monida	1985	ID	*A. sativa*	W	M-L	M-T
Montezuma	1969	CA	*A. byzantina*	R	VE	M
Ogle	1983	IL	*A. sativa*	Y	M	M
Otana	1976	MT	*A. sativa*	W	M	T
Park	1953	ID	*A. sativa*	W	M	M-T
Paul	1993	ND	*A. sativa*	hulless	E-M	M-T
Pennuda	1987	PN	*A. sativa*	hulless	M	M-T
Provena	1999	ID	*A. sativa*	hulless	M	S-M
Rio Grande	1994	ID	*A. sativa*	T	E	S-M
Swan	1970	CA	*A. sativa*	T	VE	S

[1]Astrla = Australia, CA = California, CN = Agriculture Canada, ID = Idaho, IL = Illinois, KN = Kansas, MT = Montana, ND = North Dakota, NWPB = Northwest Plant Breeders, OR = Oregon, P = private company release, PN = Pennsylvania, SK = Univ. of Saskatchewan, WA = Washington, WY = Wyoming

[2] Genus = Avena

[3] LY = light yellow, R = red, T = tan, W = white, Y = yellow

[4] VE = very early, E = early, M = midseason, L = late

[5] VS = very short, S = short, M = mid-height, T = tall, VT = very tall

Table 5. — 2001 statewide variety testing program spring soft wheat, oat, and triticale heading date data across locations in Oregon.

Variety or line[1]	Market class[2]	Corvallis	Hermiston	Klamath Falls (mineral soil)	Klamath Falls (muck soil)	Lexington	Madras	Ontario	Pendleton
		Heading (day of year)							
Alpowa	SW	156	165	186	186	150	171	153	159
Alpowa (fungicide only)	SW	155	163	185	185	149	171	153	159
Alpowa (untreated)	SW	157	165	187	187	149	169	152	159
Challis	SW	153	161	184	184	155	169	152	160
IDO 526	SW	154	164	183	183	149	169	154	159
Jefferson	HR	152	160	179	179	149	166	153	155
Jubilee (IDO 525)	SW	155	163	185	185	150	171	154	160
Penawawa	SW	152	162	183	183	150	168	153	160
Treasure	SW	158	165	183	183	153	173	155	161
WA 7884	SW	161	164	185	185	155	172	155	162
WA 7902	Club	155	163	184	184	152	170	154	159
Wawawai	SW	154	163	181	181	149	169	154	156
Alpowa (20 seeds/ft^2)	SW	155	—	—	—	—	—	—	—
Alpowa (45 seeds/ft^2)	SW	156	—	—	—	—	—	—	—
Cayuse	Oat	162	164	185	185	154	172	—	158
IDO 556	Club	155	—	—	—	149		—	160
Lamont	N Oat	163	168	191	191	155	177		164
M-94-4393	Triticale	151	—	—	—	—	—	—	—
ML 97-2-3x(2)	SW	160	—	—	—	—	—	—	—
Provena	N Oat	163	169	191	191	155	177		164
Rene-98	SW	160	—	—	—	—	—	153	—
Whitebird	SW	157	166	185	185	155	171	155	—
Winsome	HW	157	165	186	186	150	171	157	—
Yecora Rojo	HR	—	—	—	—	—	164	—	—
Zak	SW	158	162	184	184	155	170	156	159
Trial Mean		157	164	184	185	152	171	154	160

[1] Fertilized for soft wheat protein levels. All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq ft unless otherwise noted.

[2] SW = soft white, HW = hard white, HR = hard red, N = naked

Table 6. — 2001 statewide variety testing program spring hard wheat heading date data across locations in Oregon.

Variety or line[1]	Market class[2]	Corvallis	Hermiston	Klamath Falls (muck soil)	Lexington	Madras	Ontario	Pendleton
		Heading date (day of year)						
Alpowa	SW	154	165	194	150	172	15	158
IDO 377S	HW	152	161	193	153	170	155	161
Iona	HR	153	161	196	153	169	153	156
Jefferson	HR	154	161	192	150	168	156	156
Lolo (IDO 533)	HW	155	163	193	149	170	155	155
OR 4910028	HR	153	162	192	150	167	153	154
Penawawa	SW	153	163	194	155	171	158	161
Scarlet	HR	152	162	193	150	169	156	157
Sunco	HW	153	168	194	151	174	158	162
Tara (WA 7824)	HR	153	162	192	151	167	150	153
WA 7839	HR	155	162	194	150	168	149	154
WA 7899	HW	153	162	193	150	170	152	156
WA 7901	HW	154	162	196	152	172	157	156
Winsome	HW	154	166	200	152	173	157	157
WPB-936	HR	153	162	193	152	167	153	154
Yecora Rojo	HR	152	163	192	153	165	152	157
Bonus	HR	—	—	—	—	165	—	—
Brooks	HR	—	—	—	—	166	—	—
Hank	HR	153	160	193	150	165	152	154
IDO 545	HR		159		148	172	154	154
IDO 557	HR	151	160	192	150	168	152	156
IDO 560	HW	155	162	198	—	171	157	—
ML 181,A,1-38	HW	152	—	—	—	169	—	—
OR 4920002	HR	153	—	196	—	171	156	155
Pronto	HR	—	—	—	—	165	—	—
WA 7900	HW	153	162	193	151	170	155	—
Winsome (high rate)	HW	152	166	200	152	173	155	—
Winsome (low rate)	HW	153	166	200	151	172	158	—
Trial Mean		153	163	195	151	169	155	156

[1] Fertilized for desirable hard wheat protein levels. All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq. ft. High rate is 10 seeds per sq. ft higher than normal. Low rate is 10 seeds lower than normal.
[2] SW = soft white, HW = hard white, HR = hard red.

Table 7.— 2001 statewide variety testing program spring soft wheat, oat, and triticale plant height data across locations in Oregon.

Variety or line[1]	Market class[2]	Corvallis	Hermiston	Klamath Falls (mineral soil)	Klamath Falls (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio
		Plant Height (inch)										
Alpowa	SW	35	33	29	29	34	18	29	24	36	18	27
Alpowa (fungicide only)	SW	33	30	30	30	33	18	29	23	37	19	26
Alpowa (untreated)	SW	35	33	30	30	35	19	28	23	36	21	28
Challis	SW	33	29	29	29	34	21	30	26	37	20	26
IDO 526	SW	35	34	26	26	32	19	32	24	35	24	27
Jefferson	HR	36	36	27	27	32	17	33	21	37	28	26
Jubilee (IDO 525)	SW	37	34	27	27	35	21	30	24	38	18	25
Penawawa	SW	32	34	26	26	32	16	29	19	36	21	26
Treasure	SW	35	35	27	27	32	20	27	28	38	23	25
WA 7884	SW	37	33	30	30	37	18	29	19	40	27	28
WA 7902	Club	33	32	24	24	33	18	30	23	36	22	20
Wawawai	SW	40	36	31	32	37	22	32	25	40	34	29
Alpowa (20 seeds/ft^2)	SW	34	—	—	—	—	—	—	—	—	—	—
Alpowa (45 seeds/ft^2)	SW	35	—	—	—	—	—	—	—	—	—	—
Cayuse	Oat	39	36	28	28	37	24	34	20	—	31	29
IDO 556	Club	30	—	—	—	—	16	—	19	—	22	25
Lamont	N Oat	41	44	34	34	35	24	36	21	—	28	32
M-94-4393	Triticale	42	—	—	—	—	—	—	—	—	—	—
ML 97-2-3x(2)	SW	37	—	—	—	—	—	—	—	—	—	—
Provena	N Oat	37	44	33	33	33	24	33	17	—	27	28
Rene-98	SW	38	—	—	—	—	—	—	—	41	—	—
Whitebird	SW	35	36	27	27	34	22	31	25	39	—	24
Winsome	HW	34	34	26	26	31	19	29	19	36	—	26
Yecora Rojo	HR	—	—	—	—	—	—	23	—	—	—	—
Zak	SW	39	36	29	29	34	18	31	25	37	30	30
Trial Mean		36	35	29	28	34	20	30	22	37	24	27

[1] Fertilized for soft wheat protein levels. All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq. ft. unless otherwise noted.
[2] SW = soft white, HW = hard white, HR = hard red, N = naked

Table 8. 2001 statewide variety testing program spring hard wheat plant height data across locations in Oregon.

Variety or line[1]	Market class[2]	Corvallis	Hermiston	Klamath Falls[3] (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio
		Plant Height (inches)									
Alpowa	SW	32	33	27	37	19	33	22	37	25	28
IDO 377S	HW	33	36	25	37	19	35	23	39	25	27
Iona	HR	34	36	30	37	22	34	25	40	23	28
Jefferson	HR	35	32	24	38	19	30	20	38	27	26
Lolo (IDO 533)	HW	34	38	28	35	20	33	26	38	26	29
OR 4910028	HR	33	33	24	34	20	31	21	35	28	25
Penawawa	SW	32	33	25	31	16	29	23	37	22	27
Scarlet	HR	37	38	29	27	21	37	24	40	27	29
Sunco	HW	31	30	22	27	17	30	21	32	21	23
Tara (WA 7824)	HR	35	34	27	36	20	36	27	40	29	29
WA 7839	HR	33	35	27	36	21	33	21	37	27	28
WA 7899	HW	32	36	26	37	18	33	24	36	21	29
WA 7901	HW	36	34	28	40	23	36	22	40	28	29
Winsome	HW	34	30	26	35	18	31	24	35	23	26
WPB-936	HR	31	31	22	33	18	29	23	33	20	26
Yecora Rojo	HR	27	25	18	27	14	27	15	26	20	20
Bonus	HR	—	—	—	—	—	26	—	—	—	—
Brooks	HR	—	—	—	—	—	27	—	—	—	—
Hank	HR	30	26	26	34	21	31	23	34	27	—
IDO 545	HR	—	34	—	39	24	36	28	39	30	—
IDO 557	HR	33	28	25	35	21	32	22	35	23	—
IDO 560	HW	32	35	28	34	—	36	—	36	—	—
ML 181,A,1-38	HW	35	—	—	—	—	32	—	—	—	—
OR 4920002	HR	29	—	28	34	—	31	—	30	23	—
Pronto	HR	—	—	—	—	—	34	—	—	—	—
WA 7900	HW	34	35	26	38	21	34	22	37	—	29
Winsome (high rate)	HW	32	30	26	35	18	31	25	35	—	26
Winsome (low rate)	HW	32	31	27	34	20	32	22	34	—	28
Trial Mean		33	33	26	35	20	31	23	36	25	27

[1] Fertilized for desirable hard wheat protein levels. All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq ft. High rate is 10 seeds per sq ft higher than normal. Low rate is 10 seeds lower than normal.

[2] SW = soft white, HW = hard white, HR = hard red.

[3] No data for Klamath Falls (mineral)

Table 9. — 2001 statewide variety testing program spring soft wheat, oat, and triticale yield data across locations in Oregon.[1]

Variety or line[2]	Market class[3]	Corvallis	Hermiston	Klamath Falls (mineral soil)	Klamath Falls (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio	Across-site average	Across-site % of average
		Yield (60 lb bu/a; 10% moisture)											bu/a	%
Alpowa	SW	93	78	74	85	66	16	75	31	100	33	33	62	99
Alpowa (fungicide only)	SW	90	97	85	79	57	18	84	25	98	21	37	63	100
Alpowa (untreated)	SW	89	99	56	82	64	20	84	30	101	21	35	62	98
Challis	SW	86	73	90	66	58	19	94	27	114	18	29	61	97
IDO 526	SW	92	74	78	66	61	18	115	29	109	24	45	65	103
Jefferson	HR	97	88	60	65	72	25	100	38	96	50	27	65	103
Jubilee (IDO 525)	SW	89	91	70	77	55	22	81	31	97	13	21	59	93
Penawawa	SW	93	92	87	60	52	21	87	36	108	19	37	63	100
Treasure	SW	111	80	90	72	56	22	90	31	111	24	26	65	103
WA 7884	SW	97	91	83	95	63	17	77	37	114	35	41	68	108
WA 7902	Club	88	89	84	60	65	13	88	38	107	23	16	61	97
Wawawai	SW	100	85	82	53	64	18	78	35	92	50	32	63	100
Alpowa (20 seeds/ft^2)	SW	77	—	—	—	—	—	—	—	—	—	—	—	—
Alpowa (45 seeds/ft^2)	SW	94	—	—	—	—	—	—	—	—	—	—	—	—
Cayuse	Oat	89	61	67	63	53	21	67	31	—	51	42	—	—
IDO 556	Club	63	—	—	—	—	19	—	31	—	25	35	—	—
Lamont	N Oat	52	67	57	48	27	13	34	22	—	35	31	—	—
M-94-4393	Triticale	78	—	—	—	—	—	—	—	—	—	—	—	—
ML 97-2-3x(2)	SW	96	—	—	—	—	—	—	—	—	—	—	—	—
Provena	N Oat	63	74	46	45	30	9	35	24	—	33	29	—	—
Rene-98	SW	90	—	—	—	—	—	—	—	84	—	—	—	—
Whitebird	SW	84	97	83	62	47	18	95	35	101	—	—	—	—
Winsome	HW	106	97	72	79	60	21	83	28	108	—	—	—	—
Yecora Rojo	HR	—	—	—	—	—	—	79	—	—	—	—	—	—
Zak	SW	105	87	83	64	57	18	85	32	103	57	—	—	—
Trial Mean		88	84	75	68	56	18	81	31	103	31	32	63	
CV		6	21	17	15	11	16	19	15	12	9	18		
PLSD (0.05)		9	ns[4]	21	16	10	5	26	8	ns	5	9		
PLSD (0.10)		7	ns	18	13	9	4	21	7	ns	4	7		
Pr>F		0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00		

[1] All varieties fertilized for soft wheat protein levels.
[2] All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq ft unless otherwise noted.
[3] SW = soft white, HW = hard white, HR = hard red, N = naked.
[4] ns = nonsignificant

Table 10. 2001 statewide variety testing program spring hard wheat yield data across locations in Oregon.[1]

Variety or line[2]	Market class[3]	Corvallis	Hermiston	Klamath Falls[4] (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio	Across-site average	Across-site % of average
		Yield (60 lb bu/a; 10% moisture)										bu/a	%
Alpowa	SW	91	100	99	63	19	96	32	111	34	42	69	114
IDO 377S	HW	87	78	62	54	15	113	33	102	17	36	60	100
Iona	HR	82	79	50	53	16	72	34	99	21	31	54	89
Jefferson	HR	91	91	70	61	20	76	34	114	48	37	64	107
Lolo (IDO 533)	HW	93	86	68	67	18	78	35	112	29	40	63	104
OR 4910028	HR	80	71	63	65	16	86	34	111	43	30	60	100
Penawawa	SW	83	84	69	48	18	86	37	124	23	45	62	103
Scarlet	HR	86	90	69	58	17	91	35	91	24	36	60	100
Sunco	HW	82	78	56	58	18	75	31	109	20	34	56	93
Tara (WA 7824)	HR	82	72	48	61	12	77	30	88	33	43	55	91
WA 7839	HR	75	75	51	69	19	89	36	99	37	32	58	97
WA 7899	HW	83	94	61	53	18	74	34	113	42	45	62	103
WA 7901	HW	95	76	44	58	15	82	31	120	25	39	59	98
Winsome	HW	103	77	84	65	20	82	35	123	25	40	65	109
WPB-936	HR	85	93	53	65	12	89	31	97	18	31	57	96
Yecora Rojo	HR	86	88	52	67	19	94	35	107	30	33	61	102
Bonus	HR	—	—	—	—	—	108	—	—	—	—	—	—
Brooks	HR	—	—	—	—	—	95	—	—	—	—	—	—
Hank	HR	92	107	68	66	16	90	35	98	46	—	—	—
IDO 545	HR	—	71	—	49	14	83	30	112	42	—	—	—
IDO 557	HR	74	86	52	68	19	87	37	97	21	—	—	—
IDO 560	HW	103	99	70	60	—	105	—	105	—	—	—	—
ML 181,A,1-38	HW	94	—	—	—	—	94	—	—	—	—	—	—
OR 4920002	HR	68	—	66	57	—	74	—	104	34	—	—	—
Pronto	HR	—	—	—	—	—	91	—	—	—	—	—	—
WA 7900	HW	84	84	63	63	20	87	33	111	—	40	—	—
Winsome (high rate)	HW	106	84	58	52	21	83	37	124	—	42	—	—
Winsome (low rate)	HW	100	56	53	60	15	81	27	116	—	36	—	—
Trial Mean		88	83	62	60	17	88	33	108	31	37	60	
CV		9	17	19	11	14	14	15	8	22	16		
PLSD (0.05)		13	23	19	11	4	20	ns[5]	14	11	10		
PLSD (0.10)		11	19	16	9	3	17	ns	12	9	8		
Pr>F		0.00	0.02	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00		

[1] All varieties fertilized to reach desirable hard wheat protein levels.
[2] All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq ft. High rate is 10 seeds per sq ft higher than normal. Low rate is 10 seeds lower than normal.
[3] SW = soft white, HW = hard white, HR = hard red.
[4] No data for Klamath Falls (mineral)
[5] ns = nonsignificant

Table 11. — 2001 statewide variety testing program spring soft wheat, oat, and triticale yield expressed as a percent of trial average across locations in Oregon.[1]

Variety or line[2]	Market class[3]	Corvallis	Hermiston	Klamath Falls (mineral soil)	Klamath Falls (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio	Across-site average
		Yield as a percent of average											bu/a
Alpowa	SW	106	93	98	126	118	91	93	100	97	105	102	62
Alpowa (fungicide only)	SW	102	116	114	116	101	102	103	81	95	68	117	63
Alpowa (untreated)	SW	101	118	75	120	114	112	103	96	98	67	110	62
Challis	SW	98	87	120	97	104	104	116	88	110	59	92	61
IDO 526	SW	105	88	104	97	109	101	142	93	106	76	141	65
Jefferson	HR	111	105	80	95	129	137	124	122	93	161	85	65
Jubilee (IDO 525)	SW	102	108	93	113	98	120	101	101	94	43	65	59
Penawawa	SW	106	110	116	88	92	115	108	115	104	63	117	63
Treasure	SW	127	96	120	106	100	120	110	99	107	79	82	65
WA 7884	SW	110	108	110	139	112	97	95	118	111	112	127	68
WA 7902	Club	100	107	111	88	115	70	109	124	104	74	50	61
Wawawai	SW	114	101	109	78	114	103	96	114	90	160	101	63
Alpowa (20 seeds/ft^2)	SW	87	—	—	—	—	—	—	—	—	—	—	—
Alpowa (45 seeds/ft^2)	SW	107	—	—	—	—	—	—	—	—	—	—	—
Cayuse	Oat	102	72	90	93	94	117	82	101	—	166	131	—
IDO 556	Club	71	—	—	—	—	107	—	99	—	82	110	—
Lamont	N Oat	59	80	75	70	49	73	42	70	—	114	98	—
M-94-4393	Triticale	89	—	—	—	—	—	—	—	—	—	—	—
ML 97-2-3x(2)	SW	109	—	—	—	—	—	—	—	—	—	—	—
Provena	N Oat	71	88	62	66	53	52	43	78	—	107	90	—
Rene-98	SW	102	—	—	—	—	—	—	—	82	—	—	—
Whitebird	SW	95	116	111	91	84	102	117	113	98	—	—	—
Winsome	HW	120	116	96	116	108	119	102	91	105	—	—	—
Yecora Rojo	HR	—	—	—	—	—	—	98	—	—	—	—	—
Zak	SW	119	103	111	94	102	101	105	103	100	185	—	—
Trial Mean (bu/a)		88	84	75	68	56	18	81	31	103	31	32	63
CV		6	21	17	15	11	16	19	15	12	9	18	
PLSD (0.05)		9	ns[4]	21	16	10	5	26	8	ns	5	9	
PLSD (0.10)		7	ns	18	13	9	4	21	7	ns	4	7	
Pr>F		0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	

[1] All varieties fertilized for soft wheat protein levels.
[2] All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq ft unless otherwise noted.
[3] SW = soft white, HW = hard white, HR = hard red, N = naked.
[4] ns = nonsignificant

Table 12. 2001 statewide variety testing program spring hard wheat yield expressed as a percent of trial average across locations in Oregon.[1]

Variety or line[2]	Market class[3]	Corvallis	Hermiston	Klamath Falls[4] (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio	Across-site average
		Yield as a percent of average										bu/a
Alpowa	SW	103	120	159	105	109	109	98	102	109	114	113
IDO 377S	HW	99	94	100	90	85	128	101	95	54	98	94
Iona	HR	93	96	80	88	94	82	102	92	67	84	88
Jefferson	HR	104	109	112	102	119	86	102	106	154	100	64
Lolo (IDO 533)	HW	106	103	110	112	103	89	107	104	94	108	63
OR 4910028	HR	91	86	101	109	94	98	103	102	138	82	60
Penawawa	SW	94	101	111	81	104	98	111	115	74	121	62
Scarlet	HR	98	108	112	97	100	103	107	84	78	96	60
Sunco	HW	94	94	90	96	103	85	95	101	65	92	56
Tara (WA 7824)	HR	93	87	78	102	71	88	89	81	108	116	55
WA 7839	HR	85	90	82	116	114	102	110	91	120	86	58
WA 7899	HW	94	114	98	88	104	84	103	105	136	123	62
WA 7901	HW	108	92	70	97	88	93	93	111	80	105	59
Winsome	HW	117	92	136	108	120	93	105	114	82	108	65
WPB-936	HR	97	112	85	108	71	101	95	90	59	84	57
Yecora Rojo	HR	98	106	84	111	110	107	107	99	97	90	61
Bonus	HR	—	—	—	—	—	123	—	—	—	—	—
Brooks	HR	—	—	—	—	—	108	—	—	—	—	—
Hank	HR	105	129	109	110	93	102	106	91	148	—	—
IDO 545	HR	—	85	—	82	83	95	91	104	135	—	—
IDO 557	HR	84	103	84	113	112	99	111	90	68	—	—
IDO 560	HW	117	119	113	101	—	120	—	97	—	—	—
ML 181,A,1-38	HW	107	—	—	—	—	107	—	—	—	—	—
OR 4920002	HR	77	—	106	94	—	84	—	96	109	—	—
Pronto	HR	—	—	—	—	—	103	—	—	—	—	—
WA 7900	HW	96	101	102	105	118	98	101	103	—	107	—
Winsome (high rate)	HW	121	101	94	86	121	94	111	115	—	115	—
Winsome (low rate)	HW	114	67	85	100	91	92	81	108	—	98	—
Trial Mean (bu/a)		88	83	62	60	17	88	33	108	31	37	60
CV		9	17	19	11	14	14	15	8	22	16	
PLSD (0.05)		13	23	19	11	4	20	ns[5]	14	11	10	
PLSD (0.10)		11	19	16	9	3	17	ns	12	9	8	
Pr>F		0.00	0.02	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	

[1] All varieties fertilized to reach desirable hard wheat protein levels.
[2] All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq ft. High rate is 10 seeds per sq ft higher than normal. Low rate is 10 seeds lower than normal.
[3] SW = soft white, HW = hard white, HR = hard red.
[4] No data for Klamath Falls (mineral)
[5] n = nonsignificant

Table 13. — 2000 statewide variety testing program spring grain yield across locations in Oregon.[1]

Variety or line[2]	Market class[3]	Corvallis	Hermiston	Klamath Falls (mineral soil)	Klamath Falls (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio	Across-site average	Across-site % of average
		Grain Yield (60 lb bu/a, 10% moisture)											bu/a	%
Alpowa	SW	98	52	113	107	118	28	100	52	97	41	46	77	109
Alpowa (fungicide only)	SW	106	57	126	90	113	30	91	52	99	38	51	78	109
Alpowa (untreated)	SW	97	48	118	74	111	29	57	52	101	38	46	70	98
Chalis	SW	99	54	122	69	110	26	99	61	114	42	48	77	108
Hank	HR	109	45	98	86	107	24	93	44	92	54	47	76	107
IDO 377S	HW	105	43	133	96	107	34	93	50	111	49	45	78	110
IDO 506	SW	97	46	129	86	118	24	72	51	101	46	45	73	103
Jubilee (IDO 525)	SW	98	53	117	83	110	29	83	52	103	36	38	73	103
IDO 526	SW	110	56	116	99	111	35	65	55	110	46	41	77	109
Lolo (IDO 533)	HW	109	56	122	103	104	33	89	53	111	48	39	79	112
IDO 560	HW	103	55	129	100	113	33	90	55	98	42	48	77	108
Iona	HR	101	44	105	83	101	21	75	38	101	42	39	69	97
Jefferson	HR	109	42	112	78	102	34	65	54	90	51	36	72	101
ML 037A(5-2)	SW	109	44	103	84	98	22	113	38	103	45	41	73	103
ML 455	HW	107	38	99	77	108	19	82	44	86	40	52	71	99
OR 4870410	HR	104	42	123	78	98	30	74	38	92	39	45	67	95
OR 4880189	HR	99	45	106	82	101	25	82	45	106	41	47	71	100
OR 4920311	HW	95	39	119	76	91	25	71	38	100	43	46	65	92
OR 4970025	SW	94	32	93	71	80	26	78	40	96	37	42	64	91
OR 4970039	SW	104	34	111	95	90	28	87	40	96	46	39	70	99
OR 4970062	SW	108	45	110	80	95	26	57	40	99	43	53	69	97
OR 942885	SW	106	48	107	76	98	25	77	48	95	42	40	70	98
Penawawa (20 seeds/ft^2)	SW	88	37	113	59	103	23	57	48	87	19	41	62	87
Penawawa (30 seeds/ft^2)	SW	86	48	121	77	106	22	79	52	92	25	38	67	95
Pomerelle	SW	115	48	126	93	91	27	94	40	101	44	50	73	103
Scarlet	HR	105	42	106	77	107	25	68	38	86	48	33	68	96
Treasure	SW	110	52	111	103	95	27	87	49	102	53	54	73	103
Tara (WA 7824)	HR	101	40	111	63	101	21	65	54	81	46	48	66	93
Wawawai	SW	87	47	106	96	104	24	72	44	103	55	40	71	100
Whitebird	SW	96	48	130	93	91	24	71	48	111	44	45	73	103
Winsome	HW	115	50	127	107	103	31	102	51	102	48	53	81	114
WPB 936	HR	89	44	117	59	102	21	44	51	94	33	36	63	88
Yecora Rojo	HR	89	51	114	77	104	25	67	50	86	32	34	67	95
Zak (WA 7850)	SW	112	45	108	78	101	26	88	41	109	57	33	72	102
Trial Mean		101	46	115	84	102	26	79	46	99	42	44	71	—
CV		6	17	13	15	11	11	15	13	8	12	16		
PLSD (0.05)		10	13	24	21	18	4	18	10	12	8	11		
PLSD (0.10)		9	11	20	18	15	4	15	8	10	7	9		
Pr>F		0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

[1] Not all data shown. Means represent entire data set.

[2] All seed was treated with fungicide and insecticidal seed treatment prior to planting unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Pendleton, and Moro where seeding rate was 20 seeds per sq ft unless otherwise noted.

[3] SW = soft white, HW = hard white, HR = hard red

Table 14. — 1999-2001 spring grain yield across locations in Oregon.[1]

Variety[2]	Market class[3]	Corvallis	Hermiston	Klamath Falls (mineral soil)	Klamath Falls (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio	Across-site average
		Yield (60 lb bu/a, 10% moisture)											bu/a
1999													
Alpowa	SW	100	74	76	89	41	20	109	44	61	34	51	64
Alpowa (fungicide only)	SW	95	76	82	81	34	18	108	49	59	36	46	62
IDO377S	HW	93	87	86	57	58	19	107	45	83	36	38	65
Jefferson	HR	84	84	65	51	44	20	113	45	67	36	43	59
Penawawa	SW	92	80	84	58	48	17	133	43	70	36	44	64
Wawawai	SW	91	77	83	53	26	21	105	39	78	35	43	59
Whitebird	SW	90	80	85	53	48	19	105	40	81	35	40	61
Winsome	HW	89	74	85	67	49	17	133	41	51	35	40	62
Trial mean		88	77	81	64	45	19	116	44	69	35	45	62
CV		5	10	10	27	15	10	11	11	23	10	12	
LSD (0.05)		7	12	13	28	11	3	21	ns	26	ns	9	
LSD (0.10)		6	10	11	23	9	3	18	7	22	ns	7	
Pr>F		0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.10	0.03	0.38	0.00	
2000													
Alpowa	SW	98	52	107	100	118	28	114	52	97	41	46	78
Alpowa (fungicide only)	SW	106	57	90	91	113	30	126	52	99	38	51	78
Jefferson	HR	109	42	78	65	102	34	112	54	90	51	36	70
Penawawa	SW	86	48	77	79	106	23	121	52	92	25	38	68
Wawawai	SW	87	47	96	72	104	24	106	44	103	55	40	71
Whitebird	SW	96	48	93	71	91	24	130	48	111	44	45	73
Winsome	HW	115	50	107	102	103	31	127	51	102	48	53	81
Trial mean		101	46	84	78	102	26	115	46	98	43	44	71
CV		6	17	15	15	11	11	13	13	8	12	16	
LSD (0.05)		10	13	21	18	18	4	24	10	12	8	11	
LSD (0.10)		9	11	18	15	15	4	20	8	10	7	9	
Pr>F		0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	
2001													
Alpowa	SW	93	78	74	85	66	16	75	31	100	33	33	62
Alpowa (fungicide only)	SW	90	97	85	79	57	18	84	25	98	21	37	63
Jefferson	HR	97	88	60	65	72	25	100	38	96	50	27	65
Penawawa	SW	93	92	87	60	52	21	87	36	108	19	37	63
Wawawai	SW	100	85	82	53	64	18	78	35	92	50	32	63
Whitebird	SW	84	97	83	62	47	18	95	35	101	—	—	—
Winsome	HW	106	97	72	79	60	21	83	28	108	—	—	—
Trial mean		88	84	75	68	56	18	81	31	103	31	32	63
CV		6	21	17	15	11	16	19	15	12	9	18	
LSD (0.05)		9	ns[4]	21	16	10	5	26	8	ns	5	9	
LSD (0.10)		7	ns	18	13	9	4	21	7	ns	4	7	
Pr>F		0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	

Table 14 continued. — 1999-2001 spring grain yield across locations in Oregon.[1]

Variety[2]	Market class[3]	Corvallis	Hermiston	Klamath Falls (mineral soil)	Klamath Falls (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio	Across-site average
		Yield (60 lb bu/a, 10% moisture)											bu/a
1999-2001 average													
Alpowa	SW	97	68	86	91	75	21	99	42	86	36	43	68
Alpowa (fungicide only)	SW	97	77	86	84	68	22	106	42	85	32	45	68
Jefferson	HR	100	72	75	62	78	26	106	46	90	46	34	67
Penawawa	SW	88	75	76	63	67	21	107	44	89	27	39	63
Wawawai	SW	93	71	87	61	72	20	106	41	88	47	39	66
Whitebird	SW	90	74	86	62	55	21	110	41	97	—	—	71
Winsome	HW	104	76	88	78	71	24	105	40	97	—	—	76
Average yield 1999-2001		96	73	83	72	69	22	106	42	90	37	40	66
1999-2001 % of average yield		Yield as a percent of trial average											%
Alpowa	SW	101	100	103	127	109	98	94	101	95	97	108	103
Alpowa (fungicide only)	SW	101	113	104	116	98	101	100	100	95	85	112	102
Jefferson	HR	104	106	90	86	113	118	100	109	100	124	85	103
Penawawa	SW	92	110	92	88	97	97	101	105	99	73	98	96
Wawawai	SW	97	104	105	85	105	90	100	97	98	127	97	100
Whitebird	SW	94	109	104	86	79	96	104	97	107	—	—	97
Winsome	HW	108	112	106	108	102	108	99	95	108	—	—	105

[1] All varieties fertilized for soft wheat protein levels.
[2] All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq ft.
[3] SW = soft white, HW = hard white, HR = hard red

Table 15. — 2001 statewide variety testing program spring soft wheat, oat, and triticale test weight data across locations in Oregon.[1]

Variety or line [2]	Market class[3]	Corvallis	Hermiston	Klamath Falls (mineral soil)	Klamath Falls (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio	Across-site average
		Test Weight (lb/bu)											
Alpowa	SW	63.6	63.1	62.5	63.2	58.1	53.8	63.1	60.8	63.5	58.7	61.4	61.1
Alpowa (fungicide only)	SW	63.4	63.7	63.3	63.1	58.4	52.7	63.0	61.5	63.1	57.6	61.8	61.0
Alpowa (untreated)	SW	63.4	63.1	62.4	62.7	59.1	52.7	63.5	60.8	63.6	57.3	61.7	60.9
Challis	SW	62.9	61.1	61.1	61.9	53.5	52.8	61.7	49.5	61.6	46.3	59.8	57.5
IDO 526	SW	63.6	61.4	62.0	62.8	57.9	52.6	62.7	61.8	62.1	57.9	60.6	60.5
Jefferson	HR	63.9	62.7	63.0	63.1	59.7	55.3	64.0	61.1	64.2	61.1	62.7	61.9
Jubilee (IDO 525)	SW	63.8	61.9	62.4	61.8	57.2	52.0	63.5	62.0	62.0	58.4	51.4	59.7
Penawawa	SW	62.8	61.3	62.5	61.8	56.2	53.5	61.9	60.4	63.7	56.1	61.7	60.2
Treasure	SW	63.4	60.7	62.3	62.1	55.4	53.1	62.9	60.9	62.0	56.9	61.0	60.1
WA 7884	SW	63.9	62.6	63.1	61.8	59.0	51.1	63.4	60.9	62.9	59.3	61.8	60.9
WA 7902	Club	62.9	62.9	62.9	60.3	61.4	53.4	63.4	60.8	58.9	58.8	40.1	58.7
Wawawai	SW	63.6	63.6	63.0	59.8	59.2	53.9	63.7	60.1	60.5	60.4	62.1	60.9
Zak	SW	63.6	61.6	62.6	62.4	57.6	51.5	62.8	59.0	62.3	59.8	61.4	60.4
Alpowa (20 seeds/ft^2)	SW	63.1	—	—	—	—	—	—	—	—	—	—	
Alpowa (45 seeds/ft^2)	SW	63.0	—	—	—	—	—	—	—	—	—	—	
Cayuse	Oat	40.1	38.7	39.5	40.1	25.0	33.8	39.2	39.3	—	51.1	35.8	
IDO 556	Club	62.6	—	—	—	—	53.7	—	60.2	—	—	61.2	
Lamont	N Oat	45.0	47.9	51.7	49.2	44.6	42.8	48.4	47.1	—	46.6	43.0	
M-94-4393	Triticale	58.1	—	—	—	—	—	—	—	—	—	—	
ML 97-2-3x(2)	SW	62.2	—	—	—	—	—	—	—	—	—	—	
Provena	N Oat	48.4	50.6	52.9	52.0	49.9	43.2	52.2	50.8	—	50.5	49.6	
Rene-98	SW	61.4	—	—						56.7	—	—	
Whitebird	SW	64.0	61.0	62.6	62.2	56.7	52.4	64.1	61.4	61.9	—	61.5	
Winsome	HW	63.5	60.6	61.3	62.1	55.9	53.2	62.4	60.7	62.4	—	61.7	
Yecora Rojo	HR	—	—	—	—	—	—	63.7	—	—	—	—	
Trial Mean		60.6	59.3	60.0	59.6	54.7	50.9	60.5	57.8	62.0	56.2	56.8	60.3
CV		1	2	2	3	3	3	1	7	2	13	10	
PLSD (0.05)		0.8	1.5	1.8	2.7	2.4	2.7	1.0	6.6	2.0	ns[4]	9.5	
PLSD (0.10)		0.7	1.2	1.5	2.2	2.0	2.3	0.9	5.5	1.6	ns	7.9	
Pr>F		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00	

[1] All varieties fertilized for soft wheat protein levels.
[2] All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq ft unless otherwise noted.
[3] SW = soft white, HW = hard white, HR = hard red, N = naked
[4] ns = nonsignificant

Table 16. — 2001 statewide variety testing program spring hard wheat test weight data across locations in Oregon.[1]

Variety or line[2]	Market class[3]	Corvallis	Hermiston	Klamath Falls[4] (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio	Across-site average
		Test weight (lb/bu)										
Alpowa	SW	63.5	61.5	61.2	57.6	55.6	62.1	59.9	60.7	59.2	61.3	60.3
IDO 377S	HW	63.6	61.1	61.6	55.7	55.2	64.1	58.6	61.3	56.0	61.1	59.8
Iona	HR	64.1	61.3	59.9	56.5	55.9	62.0	58.2	61.8	58.0	63.0	60.1
Jefferson	HR	63.8	62.7	60.6	56.4	57.3	61.0	61.4	61.1	60.7	63.4	60.8
Lolo (IDO 533)	HW	64.3	61.4	60.8	58.3	56.6	63.1	61.2	61.7	59.6	62.2	60.9
OR 4910028	HR	62.8	61.6	59.1	55.3	54.6	61.0	58.3	59.7	58.5	62.3	59.3
Penawawa	SW	63.1	61.4	60.0	55.5	54.7	61.0	59.5	61.4	57.7	61.4	59.6
Scarlet	HR	62.8	61.6	60.2	55.2	54.9	62.4	56.8	60.2	58.5	62.2	59.5
Sunco	HW	64.2	62.4	60.9	58.9	56.2	61.2	62.6	60.7	59.1	63.1	60.9
Tara (WA 7824)	HR	62.7	62.8	60.7	58.1	55.4	62.3	59.4	60.8	59.0	62.5	60.4
WA 7839	HR	63.9	62.4	60.4	58.5	57.7	62.5	61.5	59.9	59.9	62.5	60.9
WA 7899	HW	63.1	62.4	61.3	55.3	46.1	61.9	58.9	62.5	59.2	61.7	59.2
WA 7901	HW	64.4	61.1	59.5	56.7	55.9	61.0	59.9	61.7	58.8	62.1	60.1
Winsome	HW	64.0	57.2	59.7	54.7	56.2	61.8	60.4	60.1	58.6	62.3	59.5
WPB-936	HR	62.9	62.0	60.5	57.0	54.5	61.7	59.6	60.3	57.7	62.3	59.8
Yecora Rojo	HR	63.6	62.9	60.2	58.8	56.8	63.2	60.7	62.2	59.1	61.6	60.9
Bonus	HR	—	—	—	—	—	62.2	—	—	—	—	—
Brooks	HR	—	—	—	—	—	62.3	—	—	—	—	—
Hank	HR	63.4	62.5	60.2	55.5	55.3	61.9	58.5	59.8	59.7	—	—
IDO 545	HR	—	61.5	—	55.2	54.0	61.4	59.3	60.5	59.8	—	—
IDO 557	HR	63.1	62.6	60.6	57.3	56.7	63.5	60.7	60.9	58.9	—	—
IDO 560	HW	64.3	60.9	60.5	54.9	—	62.9	—	59.6	—	—	—
ML 181,A,1-38	HW	63.6	—	—	—	—	61.9	—	—	—	—	—
OR 4920002	HR	62.3	—	59.1	54.7	—	61.1	—	61.0	58.8	—	—
Pronto	HR	—	—	—	—	—	63.4	—	—	—	—	—
WA 7900	HW	64.2	62.3	61.0	57.2	57.0	61.8	60.4	62.8	—	62.8	—
Winsome (high rate)	HW	63.9	58.0	59.1	53.5	57.0	60.5	60.4	60.7	—	62.4	—
Winsome (low rate)	HW	61.3	58.1	58.9	53.7	54.7	61.6	60.8	61.2	—	61.8	—
Trial Mean		63.5	61.3	60.2	56.2	55.4	62.1	59.9	60.9	58.9	62.2	60.1
CV		1	2	1	2	11	2	2	1	2	1	
PLSD (0.05)		1.4	1.8	1.0	1.8	ns[5]	ns	1.8	1.4	1.7	1.0	
PLSD (0.10)		1.1	1.5	0.8	1.5	ns	1.9	1.3	1.1	1.4	0.9	
Pr>F		0.00	0.00	0.00	0.00	0.93	0.06	0.00	0.00	0.00	0.01	

[1] All varieties fertilized for hard wheat protein levels.
[2] All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq ft. High rate is 10 seeds per sq ft higher than normal. Low rate is 10 seeds lower than normal.
[3] SW = soft white, HW = hard white, HR = hard red.
[4] No data for Klamath Falls (mineral)
[5] ns = nonsignificant

Table 17. — 2001 statewide variety testing program spring soft wheat, oat, and triticale protein data across locations in Oregon.[1]

Variety or line[2]	Market class[3]	Corvallis	Hermiston	Klamath Falls (mineral soil)	Klamath Falls (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio	Across-site average
		Protein % (12% moisture)											
Alpowa	SW	10.2	10.5	9.4	10.8	12.6	12.7	11.1	10.6	10.3	12.0	8.7	10.8
Alpowa (fungicide only)	SW	10.4	10.1	9.3	10.7	12.7	12.7	11.7	11.1	10.1	13.3	8.8	11.0
Alpowa (untreated)	SW	10.5	10.5	9.2	10.7	11.7	12.5	10.0	10.5	10.6	12.1	8.6	10.6
Challis	SW	10.0	10.3	8.5	11.1	12.7	12.4	11.3	11.0	9.5	12.8	9.0	10.8
IDO 526	SW	10.2	10.0	8.6	11.0	11.9	12.7	10.2	12.5	10.5	12.4	9.0	10.8
Jefferson	HR	13.6	12.6	11.1	14.3	13.1	15.1	12.3	12.8	11.9	13.2	11.3	12.8
Jubilee (IDO 525)	SW	11.3	10.7	9.2	11.6	12.9	12.7	11.9	10.8	11.0	13.7	10.5	11.5
Penawawa	SW	10.2	10.9	8.8	11.4	14.1	13.1	9.6	11.4	10.2	13.3	8.6	11.1
Treasure	SW	10.4	10.4	8.4	10.5	13.2	13.5	10.8	11.0	10.1	12.6	9.4	10.9
WA 7884	SW	10.5	10.2	9.5	10.2	12.0	13.2	10.5	10.6	10.2	11.8	9.1	10.7
WA 7902	Club	10.7	10.6	9.5	11.9	11.3	12.5	10.2	10.3	10.3	12.3	10.8	10.9
Wawawai	SW	11.2	11.1	9.7	12.0	11.7	12.6	11.0	11.1	11.2	12.0	10.0	11.2
Alpowa (20 seeds/ft^2)	SW	10.7	—	—	—	—	—	—	—	—	—	—	—
Alpowa (45 seeds/ft^2)	SW	10.6	—	—	—	—	—	—	—	—	—	—	—
Cayuse	Oat	14.6	12.6	10.7	15.8	14.0	11.4	14.6	15.8	—	16.6	11.3	—
IDO 556	Club	13.2	—	—	—	—	14.9	—	10.8	—	14.8	12.0	—
Lamont	N Oat	19.9	17.9	13.9	19.7	22.3	18.8	20.0	21.2	—	23.3	15.7	—
M-94-4393	Triticale	11.4	—	—	—	—	—	—	—	—	—	—	—
ML 97-2-3x(2)	SW	11.0	—	—	—	—	—	—	—	—	—	—	—
Provena	N Oat	23.3	20.1	16.1	24.0	25.7	25.8	22.9	26.3	—	27.8	18.0	—
Rene-98	SW	11.2	—	—	—	—	—	—	—	11.7	—	—	—
Whitebird	SW	11.1	10.8	8.5	11.4	12.7	12.4	10.8	11.1	10.2	—	9.7	—
Winsome	HW	11.1	11.0	9.7	11.4	12.7	13.9	10.4	12.0	11.2	—	9.0	—
Yecora Rojo	HR	—	—	—	—	—	—	11.4	—	—	—	—	—
Zak	SW	10.8	10.8	9.0	11.0	13.7	13.2	11.4	12.1	11.1	11.9	9.5	—
Trial Mean		12.0	11.7	9.9	12.7	13.9	14.0	12.2	12.7	10.6	14.5	10.5	11.1
CV		5	11	8	4	19	19	7	4	6	4	8	
PLSD (0.05)		0.9	2.2	1.2	0.7	4.3	4.4	1.5	0.8	1.1	0.8	1.3	
PLSD (0.10)	0.8	1.8	1.0	0.6	3.6	3.7	1.2	0.6	0.9	0.7	1.0		
Pr>F		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	

[1] All varieties fertilized for soft wheat protein levels.
[2] All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq ft unless otherwise noted.
[3] SW = soft white, HW = hard white, HR = hard red, N = naked

Table 18. — 2001 statewide variety testing program spring hard wheat protein data across locations in Oregon.[1]

Variety or line[2]	Market class[3]	Corvallis	Hermiston	Klamath Falls[4] (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio	Across-site average
		Protein % (12% moisture)										
Alpowa	SW	10.5	9.7	11.5	13.3	12.5	10.9	10.8	11.8	12.4	9.2	11.3
IDO 377S	HW	12.0	11.4	12.4	14.7	14.9	9.9	13.3	13.4	15.7	10.9	12.9
Iona	HR	14.1	13.8	14.8	16.3	15.1	14.2	13.9	13.4	16.5	11.8	14.4
Jefferson	HR	13.9	12.2	14.6	15.8	15.0	14.1	13.5	13.2	14.9	11.6	13.9
Lolo (IDO 533)	HW	12.0	12.0	12.4	13.4	14.9	11.9	12.0	12.4	14.2	10.3	12.6
OR 4910028	HR	13.4	12.1	14.0	13.8	14.5	11.6	13.5	12.2	14.1	11.5	13.1
Penawawa	SW	10.8	11.0	11.6	14.1	13.1	10.9	11.4	11.3	14.5	8.9	11.8
Scarlet	HR	14.6	12.2	14.5	15.1	15.4	12.2	13.6	13.6	15.1	11.9	13.8
Sunco	HW	12.4	11.8	13.1	14.1	14.7	12.6	12.8	11.9	15.0	11.0	12.9
Tara (WA 7824)	HR	13.3	12.8	15.4	15.3	15.9	14.2	13.5	14.6	15.0	11.5	14.2
WA 7839	HR	14.5	13.5	15.2	15.1	15.0	13.1	13.9	13.8	15.3	12.5	14.2
WA 7899	HW	12.5	11.4	12.1	15.1	13.8	12.5	12.5	12.4	13.7	10.0	12.6
WA 7901	HW	11.8	12.1	13.8	14.4	14.5	12.5	13.2	12.1	14.7	10.2	12.9
Winsome	HW	11.2	12.0	11.7	13.8	13.6	11.7	12.1	11.3	13.5	9.9	12.1
WPB-936	HR	14.5	12.2	15.3	14.5	16.1	13.4	15.0	14.3	17.4	12.9	14.6
Yecora Rojo	HR	13.7	13.5	14.6	14.9	15.2	12.0	14.1	14.1	15.7	11.5	13.9
Bonus	HR	—	—	—	—	—	11.4	—	—	—	—	—
Brooks	HR	—	—	—	—	—	12.0	—	—	—	—	—
Hank	HR	13.2	12.9	14.8	15.4	15.4	14.2	14.0	13.8	15.0	—	—
IDO 545	HR	—	12.9	—	16.1	15.7	13.4	14.4	12.3	15.2	—	—
IDO 557	HR	13.6	12.4	14.1	14.3	14.5	12.8	13.2	14.5	16.1	—	—
IDO 560	HW	11.3	11.6	11.3	14.3	—	10.3	—	11.8	—	—	—
ML 181,A,1-38	HW	12.6	—	—	—	—	11.6	—	—	—	—	—
OR 4920002	HR	13.6	—	12.4	14.8	—	11.9	—	13.5	15.0	—	—
Pronto	HR	—	—	—	—	—	13.2	—	—	—	—	—
WA 7900	HW	11.8	12.0	13.2	14.1	13.6	11.6	12.2	12.6	—	10.2	—
Winsome (high rate)	HW	11.0	11.7	11.6	14.1	13.7	11.5	11.9	11.2	—	9.6	—
Winsome (low rate)	HW	11.8	11.9	12.2	14.7	13.6	11.7	12.4	11.5	—	9.7	—
Trial Mean		12.7	12.1	13.3	14.6	14.6	12.3	13.0	12.8	14.9	10.8	13.2
CV		4	7	4	6	5	8	3	4	4	4	
PLSD (0.05)		0.8	1.3	0.8	1.4	1.1	1.5	0.6	0.8	0.8	0.7	
PLSD (0.10)		0.6	1.1	0.6	1.1	0.9	1.3	0.5	0.6	0.7	0.5	
Pr>F		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

[1] All varieties fertilized for hard wheat protein levels. Soft wheat added as a quality check.
[2] All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft. for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq ft. High rate is 10 seeds per sq ft higher than normal. Low rate is 10 seeds lower than normal.
[3] SW = soft white, HW = hard white, HR = hard red.
[4] No data for Klamath Falls (mineral)

Table 19. — 2001 statewide variety testing program spring barley and oat plant height data across locations in Oregon.

Variety or line[1]	Market class[2]	Corvallis	Hermiston	Klamath Falls[3] (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio
		Plant height (inches)									
Bancroft	2RM	28	35	25	39	23	30	24	29	22	25
BCD-47 (Othello)	2RF/M	24	27	20	26	18	24	19	27	20	22
Chinook	2RM	27	30	23	35	20	30	20	33	23	26
Farmington (WA 9504-94)	2RF	26	26	24	29	17	27	20	28	21	23
Garnet	2RM	30	31	22	37	19	24	23	30	22	28
H3860224	2RF	32	30	24	39	18	28	23	35	23	26
Harrington	2RM	29	30	23	32	20	29	21	31	24	27
Morex	6RM	36	25	31	40	23	34	25	40	23	28
Orca	2RF	33	29	24	34	22	30	21	34	23	29
Stab-113	6RF/M	30	35	27	34	16	28	20	34	26	25
Stab-7	6RF/M	31	40	27	37	17	26	20	33	21	25
Tango	6RF	32	26	24	41	21	31	17	32	26	27
Valier	2RF	29	28	23	35	20	25	18	33	23	27
WA 8682-96	6RF/M	28	28	25	39	23	31	21	35	24	24
CDC Select	2RM	—	—	25	—	—	—	—	—	—	—
DA 587-124	6RF/M	22	—	20	—	—	—	—	—	—	—
Harrington (20 seeds/ft^2)	2RM	29	—	—	—	—	—	—	—	—	—
Harrington (40 seeds/ft^2)	2RM	30	—	—	—	—	—	—	—	—	—
Jersey	2RF	—	—	24	—	—	—	—	—	—	—
Samish-23	2RF/M	28	—	24	—	—	—	—	—	—	—
Stab-47	6RF/M	31	31	28	34	23	28	25	36	—	26
Steptoe	6RF	32	25	22	40	20	28	20	36	25	—
TR167	2RF/M	—	—	26	—	—	—	—	—	—	—
Xena	2RF	29	35	23	—	—	—	22	34	—	—
YU 597-390	2RF/M	—	—	20	—	—	—	—	—	—	—
YU 597-399	2RF/M	24	—	20	—	—	—	—	—	—	—
Cayuse	Oat	—	—	—	—	—	—	—	40	—	—
Lamont	N Oat	—	—	—	—	—	—	—	40	—	—
Provena	N Oat	—	—	—	—	—	—	—	39	—	—
Trial mean		29	30	24	36	20	28	21	34	23	26

[1] All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro and Pendleton, where seeding rate was 20 seeds per sq ft unless otherwise noted.
[2] R = row, F = Feed, M = malt, F/M = being evaluated for malt
[3] No data for Klamath Falls (mineral soil)

Table 20. — 2001 statewide variety testing program spring barley and oat heading date data across locations in Oregon.

Variety or line[1]	Market class[2]	Corvallis	Hermiston	Klamath Falls[3] (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton
		Heading date (day of year)								
Bancroft	2RM	152	160	179	172	156	169	162	158	159
BCD-47 (Othello)	2RF/M	153	163	176	174	152	172	159	152	156
Chinook	2RM	154	162	179	172	157	171	161	161	157
Farmington (WA 9504-94)	2RF	154	165	179	174	157	169	162	160	158
Garnet	2RM	155	164	180	173	157	171	161	157	156
H3860224	2RF	153	163	177	173	157	172	162	158	157
Harrington	2RM	152	161	179	172	156	171	161	160	156
Morex	6RM	151	155	177	168	155	170	158	147	155
Orca	2RF	150	156	176	167	153	169	153	147	154
Stab-113	6RF/M	155	160	179	169	154	171	160	155	156
Stab-7	6RF/M	156	166	NA	174	154	167	162	158	160
Tango	6RF	153	157	176	168	154	168	159	150	154
Valier	2RF	153	164	178	173	156	168	163	156	156
WA 8682-96	6RF/M	152	162	177	171	156	167	161	159	156
CDC Select	2RM	—	—	179	—	—	—	—	—	—
DA 587-124	6RF/M	151	—	176	—	—	—	—	—	—
Harrington (20 seeds/ft^2)	2RM	152	—	—	—	—	—	—	—	—
Harrington (40 seeds/ft^2)	2RM	154	—	—	—	—	—	—	—	—
Jersey	2RF	—	—	179	—	—	—	—	—	—
Samish-23	2RF/M	154	—	179	—	—	—	—	—	—
Stab-47	6RF/M	151	156	176	168	155	171	155	149	—
Steptoe	6RF	153	156	176	169	155	171	154	149	155
TR167	2RF/M	—	—	178	—	—	—	—	—	—
Xena	2RF	154	165	177	—	—	—	162	160	—
YU 597-390	2RF/M	—	—	176	—	—	—	—	—	—
YU 597-399	2RF/M	152	—	177	—	—	—	—	—	—
Cayuse	Oat	—	—	—	—	—	—	—	161	—
Lamont	N Oat	—	—	—	—	—	—	—	164	—
Provena	N Oat	—	—	—	—	—	—	—	161	—
Trial mean		153	161	178	171	155	170	160	156	156

[1] All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq ft unless otherwise noted.
[2] 2R = two row, 6R = six row, F = Feed, M = malt, F/M = being evaluated for malt, N = naked
[3] No data for Klamath Falls (mineral soil)

Table 21. — 2001 statewide variety testing program spring barley and oat yield data across locations in Oregon.

Variety or line[1]	Market class[2]	Corvallis	Hermiston	Klamath Falls (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio	Across-site average	Across-site % of average
		Yield (lb/a, 10% moisture)										lb/a	%
Bancroft	2RM	4534	3780	3241	2596	1259	3229	2103	3159	2572	2013	2849	92
BCD-47 (Othello)	2RF/M	4978	4249	3817	3438	1345	4194	1970	4877	2100	2072	3304	107
Chinook	2RM	4675	4402	2660	4469	1603	4458	1931	4310	2710	1852	3307	107
Farmington (WA 9504-94)	2RF	4910	3944	3483	3753	1016	3186	1988	6000	2730	2001	3301	107
Garnet	2RM	5268	3891	2093	3840	1281	4762	2133	4044	2668	2210	3219	104
H3860224	2RF	5303	4433	3321	3405	1377	4029	1809	4046	2742	1931	3240	105
Harrington	2RM	4580	4300	3306	3850	1170	3414	1629	4057	2805	2132	3124	101
Morex	6RM	3056	3115	3115	3843	1365	3962	1817	2891	2020	1669	2685	87
Orca	2RF	4506	3499	3420	4328	1587	3855	1430	4577	2187	2311	3170	103
Stab-113	6RF/M	4014	3403	2797	3834	614	4214	1524	5541	1678	1523	2914	95
Stab-7	6RF/M	3412	3766	1325	3758	566	3685	1173	4263	1956	1446	2535	82
Tango	6RF	4100	3893	2391	2411	1235	3099	1481	5097	1632	2115	2745	89
Valier	2RF	4885	5011	4254	3701	1323	3698	2071	3952	2722	2415	3403	110
WA 8682-96	6RF/M	6038	4910	4139	2875	1607	2981	2335	3403	2997	2139	3342	108
CDC Select	2RM	—	—	2862	—	—	—	—	—	—	—	—	—
DA 587-124	6RF/M	4314	—	3338	—	—	—	—	—	—	—	—	—
Harrington (20 seeds/ft^2)	2RM	4009	—	—	—	—	—	—	—	—	—	—	—
Harrington (40 seeds/ft^2)	2RM	4586	—	—	—	—	—	—	—	—	—	—	—
Jersey	2RF	—	—	2627	—	—	—	—	—	—	—	—	—
Samish-23	2RF/M	5569	—	2759	—	—	—	—	3812	—	—	—	—
Stab-47	6RF/M	4128	4951	2927	3824	837	3887	1135	4202	—	1426	—	—
Steptoe	6RF	2947	4502	2728	3812	1402	3458	1624	3155	2258	—	—	—
TR167	2RF/M	—	—	3444	—	—	—	—	—	—	—	—	—
Xena	2RF	6780	4646	3307	—	—	—	2212	4657	2321	—	—	—
YU 597-390	2RF/M	—	—	3833	—	—	—	—	—	—	—	—	—
YU 597-399	2RF/M	5212	—	3190	—	—	—	—	—	—	—	—	—
Cayuse	Oat	—	—	—	—	—	—	—	3812	—	—	—	—
Lamont	N Oat	—	—	—	—	—	—	—	2018	—	—	—	—
Provena	N Oat	—	—	—	—	—	—	—	1940	—	—	—	—
Trial Mean		4627	4158	3099	3608	1224	3757	1786	4000	2381	1950	3081	
CV		17	19	15	19	12	17	15	15	8	26		
PLSD (0.05)		1259	1307	784	1122	241	ns[4]	452	979	303	860		
PLSD (0.10)		1049	1087	654	933	200	909	376	816	252	714		
Pr>F		0.00	0.00	0.00	0.04	0.00	0.10	0.00	0.00	0.00	0.01		

[1] All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq ft unless otherwise noted.

[2] 2R = two row, 6R = six row, F = Feed, M = malt, F/M = being evaluated for malt, N = naked.

[3] No data for Klamath Falls (mineral soil)

[4] ns = nonsignificant

Table 22. — 2001 statewide variety testing program spring barley and oat yield data expressed as a percent of trial average across locations in Oregon.

Variety or line[1]	Market class[2]	Corvallis	Hermiston	Klamath Falls[3] (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio	Across-site average
		Yield as a percent of average										lb/a
Bancroft	2RM	98	91	105	72	103	86	118	79	108	103	2849
BCD-47 (Othello)	2RF/M	108	102	123	95	110	112	110	122	88	106	3304
Chinook	2RM	101	106	86	124	131	119	108	108	114	95	3307
Farmington (WA 9504-94)	2RF	106	95	112	104	83	85	111	150	115	103	3301
Garnet	2RM	114	94	68	106	105	127	119	101	112	113	3219
H3860224	2RF	115	107	107	94	113	107	101	101	115	99	3240
Harrington	2RM	99	103	107	107	96	91	91	101	118	109	3124
Morex	6RM	66	75	101	107	112	105	102	72	85	86	2685
Orca	2RF	97	84	110	120	130	103	80	114	92	119	3170
Stab-113	6RF/M	87	82	90	106	50	112	85	139	70	78	2914
Stab-7	6RF/M	74	91	43	104	46	98	66	107	82	74	2535
Tango	6RF	89	94	77	67	101	82	83	127	69	108	2745
Valier	2RF	106	121	137	103	108	98	116	99	114	124	3403
WA 8682-96	6RF/M	130	118	134	80	131	79	131	85	126	110	3342
CDC Select	2RM	—	—	92	—	—	—	—	—	—	—	—
DA 587-124	6RF/M	93	—	108	—	—	—	—	—	—	—	—
Harrington (20 seeds/ft^2)	2RM	87	—	—	—	—	—	—	—	—	—	—
Harrington (40 seeds/ft^2)	2RM	99	—	—	—	—	—	—	—	—	—	—
Jersey	2RF	—	—	85	—	—	—	—	—	—	—	—
Samish-23	2RF/M	120	—	89	—	—	—	—	95	—	—	—
Stab-47	6RF/M	89	119	94	106	68	103	64	105	—	73	—
Steptoe	6RF	64	108	88	106	115	92	91	79	95	—	—
TR167	2RF/M	—	—	111	—	—	—	—	—	—	—	—
Xena	2RF	147	112	107	—	—	—	124	116	97	—	—
YU 597-390	2RF/M	—	—	124	—	—	—	—	—	—	—	—
YU 597-399	2RF/M	113	—	103	—	—	—	—	—	—	—	—
Cayuse	Oat	—	—	—	—	—	—	—	95	—	—	—
Lamont	N Oat	—	—	—	—	—	—	—	50	—	—	—
Provena	N Oat	—	—	—	—	—	—	—	48	—	—	—
Trial Mean		4627	4158	3099	3608	1224	3757	1786	4000	2381	1950	3081

[1] All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq ft unless otherwise noted.

[2] 2R = two row, 6R = six row, F = Feed, M = malt, F/M = being evaluated for malt, N = naked

[3] No data for Klamath Falls (mineral soil)

Table 23. — 2000 statewide variety testing program spring barley grain yield across locations in Oregon.

Variety or line[1]	Market class[2]	Corvallis	Hermiston	Klamath Falls (mineral soil)	Klamath Falls (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio	Across-site average	Across-site % of average
		Grain Yield (lb/a, 10% moisture)												%
Bancroft	2RM	4617	3991	6355	5361	4951	1474	4097	3241	4282	2505	2887	3978	100
Baronesse	2RF	5110	4491	5852	4814	7242	2345	5273	3474	4945	2454	3615	4510	113
Belford	Hooded	2910	1150	3852	3413	3238	1543	3503	2040	2786	2049	2639	2648	67
Chinook	2RM	4536	3827	5421	3088	6474	1569	4309	3043	4676	1843	2766	3778	95
Garnet	2RM	4349	3782	4965	3915	5093	1906	4854	3356	4751	2451	3093	3865	97
H3860224	2RF/M	5967	3911	5906	5446	6008	2312	4265	3249	5294	2495	3366	4384	110
Harrington	2RM	4766	3595	5188	4031	5239	1967	4481	3527	5051	2148	2953	3904	98
Orca	2RF	5694	4097	5500	5131	5389	2101	3772	2875	4102	2126	2473	3933	99
Othello (BCD 47)	2RF/M	6793	4520	5721	3781	5937	1898	4497	3183	5226	2131	3217	4264	107
Steptoe	6RF	4498	3995	5140	4620	6791	2297	4417	3177	5027	1940	2661	4051	102
Tango	6RF	4965	4187	4935	4313	4695	2288	4736	3893	5337	1852	2405	3964	100
Xena (BZ594-19)	2RF	5997	4324	6048	4580	6490	2201	4837	3493	5312	2033	3546	4442	112
B-1202	2RF/M	5620	—	5074	4131	—	—	—	—	—	—	—	—	—
DA587-124	6RF/M	—	—	5308	3564	—	—	—	—	—	—	—	—	—
Galena	2RM	—	—	4841	3776	—	—	—	—	—	—	—	—	—
Gallatin	2RF	—	—	—	—	—	—	—	3265	—	—	—	—	—
Gus	6RF	—	—	4127	5923	—	—	—	—	—	—	—	—	—
Jersey	2RF	6633	—	5121	1940	—	—	—	—	—	—	—	—	—
Millennium	6RF	—	—	—	—	—	—	—	—	5594	—	—	—	—
Morex	6RM	4345	—	4861	—	—	—	—	—	—	—	—	—	—
Nebula	6RF	—	—	6692	5937	—	—	—	—	—	—	—	—	—
Sara-I	Hooded	4671	—	4221	5417	3634	955	1722	—	2007	866	2629	—	—
Sprinter	6RF	6377	—	3928	5270	—	—	—	—	—	—	—	—	—
Statehood	6RF	—	—	5050	5414	—	—	—	—	—	—	—	—	—
UC 960		—	—	4509	3663	—	—	—	—	—	—	—	—	—
Valier	2RF	4072	3216	4775	3691	4199	2111	4676	3263	5356	2496	3377	—	—
WA9504-94	2RF/M	5983	4152	6214	5861	5272	1961	4412	3701	6014	2465	2727	—	—
Washford	2RF	2744	—	—	—	—	—	—	—	—	—	—	—	—
Westford	Hooded	—	—	—	—	—	—	—	—	—	—	2041	—	—
Trial Mean		5032	3803	5144	4462	5376	1929	4257	3252	4735	2124	2900	3977	
CV		11	15	10	13	16	11	13	10	15	12	9		
PLSD (0.05)		940	943	857	922	1422	369	944	555	1145	411	450		
PLSD (0.10)		782	782	716	770	1181	306	784	461	952	341	374		
Pr>F		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

[1] All seed was treated with fungicide and Gaucho (insecticide) prior to planting unless otherwise noted. Seeding rate was 30 seeds per sq ft at all locations except Lexington, Pendleton, and Moro, where seeding rate was 20 seeds per sq ft unless otherwise noted.

[2] 2R = two row, 6R = six row, F = feed, M = malt, F/M = may be considered for malt

Table 24. — 1999-2001 statewide variety testing program spring barley grain yields across locations in Oregon.

Variety or line[1]	Market class[2]	Corvallis	Hermiston	Klamath Falls (mineral soil)	Klamath Falls (muck soil)	LaGrande	Lexington[3]	Madras	Moro[3]	Pendleton	Ontario	Scio	Across-site average
		Yield (lb/a, 10% moisture)											
1999													
Bancroft	2RM	5864	3796	4198	4136	1989	1176	4946	3093	2943	3168	3573	3475
Baronesse	2RF	6902	5416	5048	5427	2388	1592	6921	3495	3070	5328	4125	4429
Chinook	2RM	6117	3610	3995	4247	2754	1374	6101	3322	2817	5104	3757	3895
Orca	2RF	4897	2994	3454	5169	3281	1314	4898	3071	2801	4425	2701	3384
Steptoe	6RF	6525	3290	4682	4589	1650	1421	6227	3641	3068	4531	3191	3823
Trial mean (lb/a)		6260	4473	4101	4951	2702	1370	5953	3328	2886	4856	3438	3937
2000													
Bancroft	2RM	4617	3991	6355	5361	4951	1474	4097	3241	2505	4282	2887	3840
Baronesse	2RF	5110	4491	5852	4814	7242	2345	5273	3474	2454	4945	3615	4480
Chinook	2RM	4536	3827	5421	3088	6474	1569	4309	3043	1843	4676	2766	3847
Orca	2RF	5694	4097	5500	5131	5389	2101	3772	2875	2126	4102	2473	3813
Steptoe	6RF	4498	3995	5140	4620	6791	2297	4417	3177	1940	5027	2661	3994
Trial mean (lb/a)		5032	3803	5144	4462	5376	1929	4257	3252	2124	4735	2900	3855
2001													
Bancroft	2RM	4534	3780	—	3241	2596	1259	3229	2103	3159	2572	2013	2849
Baronesse	2RF	—	—	—	—	—	—	—	—	—	—	—	—
Chinook	2RM	4675	4402	—	2660	4469	1603	4458	1931	4310	2710	1852	3307
Orca	2RF	4506	3499	—	3420	4328	1587	3855	1430	4577	2187	2311	3170
Steptoe	6RF	2947	4502	—	2728	3812	1402	3458	1624	3155	2258	—	—
Trial mean (lb/a)		4165	4046	—	3012	3801	1463	3750	1772	3800	2432	2059	3108
1999-2001 average													
Bancroft	2RM	5005	3856	—	4246	3179	1303	4091	2812	2869	3341	2824	3388
Baronesse	2RF	—	—	—	—	—	—	—	—	—	—	—	—
Chinook	2RM	5109	3947	—	3332	4566	1515	4956	2765	2990	4163	2792	3683
Orca	2RF	5032	3530	—	4573	4333	1667	4175	2459	3168	3571	2495	3455
Steptoe	6RF	4657	3929	—	3979	4084	1707	4701	2814	2721	3939	—	—
Average yield 1999-2001		4951	3815	—	4032	4040	1548	4481	2712	2937	3754	2704	3509
1999-2001 % of average		Yield as a percent of trial average											
Bancroft	2RM	101	101	—	105	79	84	91	104	98	89	104	97
Baronesse	2RF	—	—	—	—	—	—	—	—	—	—	—	—
Chinook	2RM	103	103	—	83	113	98	111	102	102	111	103	105
Orca	2RF	102	93	—	113	107	108	93	91	108	95	92	98
Steptoe	6RF	94	103	—	99	101	110	105	104	93	105	—	—

[1] All seed was treated with fungicide and Gaucho (insecticide) prior to planting unless otherwise noted. Seeding rate was 30 seeds per sq ft at all locations except Lexington, Pendleton, and Moro, where seeding rate was 20 seeds per sq ft unless otherwise noted.

[2] 2R = two row, 6R = six row, F = feed, M = malt, F/M = may be considered for malt

Table 25. — 2001 statewide variety testing program spring barley and oat test weight data across locations in Oregon.

Variety or line [1]	Market class[2]	Corvallis	Hermiston	Klamath Falls[3] (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio	Across-site average
		Test weight (lb/bu)										
Bancroft	2RM	52.7	54.3	53.9	46.3	49.3	50.7	48.6	55.8	52.1	51.3	51.5
BCD-47 (Othello)	2RF/M	54.7	54.2	54.0	44.2	50.5	53.0	52.3	53.7	51.7	53.2	52.2
Chinook	2RM	54.4	55.5	53.4	47.7	50.9	52.2	49.3	55.9	53.1	50.5	52.3
Farmington (WA 9504-94)	2RF	53.4	53.3	53.0	47.7	48.6	50.4	48.8	53.5	49.9	54.3	51.3
Garnet	2RM	53.5	53.8	52.6	44.3	49.5	53.9	49.5	55.2	51.1	50.4	51.4
H3860224	2RF	54.8	55.3	54.4	44.3	49.5	53.8	49.4	55.9	52.1	51.0	52.0
Harrington	2RM	51.6	54.4	53.7	45.3	50.4	51.5	48.8	54.6	52.0	50.4	51.3
Morex	6RM	47.2	51.8	52.9	46.2	47.6	51.5	48.3	54.4	49.8	48.9	49.9
Orca	2RF	54.4	53.0	54.5	49.3	48.5	52.3	51.4	55.1	50.0	52.6	52.1
Stab-113	6RF/M	50.4	52.3	51.7	45.1	47.4	53.8	48.1	54.0	46.6	53.3	50.3
Stab-7	6RF/M	48.9	50.4	51.4	41.8	44.9	52.1	45.0	49.0	47.9	46.6	47.8
Tango	6RF	49.6	50.2	50.4	43.1	44.8	51.0	44.3	53.4	44.7	46.3	47.8
Valier	2RF	52.8	55.1	54.6	47.5	52.6	52.2	51.4	55.0	52.1	53.9	52.7
WA 8682-96	6RF/M	54.5	55.0	54.7	47.1	50.6	50.6	51.6	55.6	52.9	52.3	52.5
CDC Select	2RM	—	—	54.8	—	—	—	—	—	—	—	—
DA 587-124	6RF/M	49.2	—	53.6	—	—	—	—	—	—	—	—
Harrington (20 seeds/ft^2)	2RM	52.4	—	—	—	—	—	—	—	—	—	—
Harrington (40 seeds/ft^2)	2RM	51.7	—	—	—	—	53.9	—	—	—	—	—
Jersey	2RF	—	—	52.1	—	—	53.6	—	—	—	—	—
Samish-23	2RF/M	54.4	—	53.2	—	—	—	—	—	—	—	—
Stab-47	6RF/M	49.3	52.9	51.4	44.9	46.1	—	46.1	53.9	—	52.0	—
Steptoe	6RF	41.8	51.7	50.9	42.6	44.9	—	46.3	53.1	47.6	—	—
TR167	2RF/M	—	—	54.5	—	—	—	—	—	—	—	—
Xena	2RF	53.1	54.3	53.1	—	—	—	50.0	55.5	51.8	—	—
YU 597-390	2RF/M	—	—	53.6	—	—	—	—	—	—	—	—
YU 597-399	2RF/M	54.7	—	54.4	—	—	—	—	—	—	—	—
Cayuse	Oat	—	—	—	—	—	—	—	33.8	—	—	—
Lamont	N Oat	—	—	—	—	—	—	—	41.1	—	—	—
Provena	N Oat	—	—	—	—	—	—	—	45.0	—	—	—
Trial Mean		51.8	53.3	53.2	45.4	48.5	52.2	48.8	52.2	50.3	51.2	51.1
CV		3	2	1	6	3	3	2	2	2	6	
PLSD (0.05)		2.2	1.4	1.0	4.2	2.1	ns[4]	1.5	1.4	1.4	4.8	
PLSD (0.10)		1.9	1.2	0.8	3.5	1.7	ns	1.2	1.1	1.2	4.0	
Pr>F		0.00	0.00	0.00	0.04	0.00	0.23	0.00	0.00	0.00	0.05	

[1] All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq ft unless otherwise noted.
[2] 2R = two row, 6R = six row, F = Feed, M = malt, F/M = being evaluated for malt, N = naked.
[3] No data for Klamath Falls (mineral soil)
[4] ns = nonsignificant

Table 26. — 2001 statewide variety testing program spring barley protein data across locations in Oregon.

Variety or line[1]	Market class[2]	Corvallis	Hermiston	Klamath Falls[3] (muck soil)	LaGrande	Lexington	Madras	Moro	Ontario	Pendleton	Scio	Across-site average
		Protein % (12% moisture)										
Bancroft	2RM	12.2	11.4	14.5	15.0	15.0	9.6	12.9	14.3	13.9	10.8	13.0
BCD-47 (Othello)	2RF/M	13.5	11.1	15.3	16.0	15.6	10.2	13.3	13.2	15.1	12.0	13.5
Chinook	2RM	12.2	10.9	15.4	15.4	14.9	9.5	13.1	13.8	14.3	10.9	13.0
Farmington (WA 9504-94)	2RF	12.4	10.4	14.5	14.4	17.0	10.2	14.0	12.7	14.1	10.2	13.0
Garnet	2RM	11.7	10.3	15.4	16.2	15.5	11.1	13.1	13.6	13.7	10.8	13.1
H3860224	2RF	12.6	10.5	15.1	16.7	16.4	9.7	13.4	13.7	14.5	10.9	13.3
Harrington	2RM	11.2	10.2	14.4	14.4	17.3	9.6	12.8	14.3	13.5	10.8	12.8
Morex	6RM	12.1	12.0	14.3	14.9	14.8	10.8	13.4	13.8	14.1	10.8	13.1
Orca	2RF	14.3	12.9	14.8	15.0	14.7	8.9	13.8	14.0	14.2	13.7	13.6
Stab-113	6RF/M	11.4	11.3	15.1	14.4	15.1	9.8	13.3	11.3	14.2	11.5	12.7
Stab-7	6RF/M	12.8	11.6	15.3	14.3	15.4	9.7	13.9	13.1	14.4	11.5	13.2
Tango	6RF	13.4	10.7	12.6	13.8	12.8	9.9	12.1	11.6	12.6	10.9	12.0
Valier	2RF	11.8	10.6	14.4	15.5	16.7	9.7	13.1	13.4	14.7	10.6	13.1
WA 8682-96	6RF/M	12.0	10.2	13.4	15.2	14.9	9.9	12.7	13.3	13.7	11.0	12.6
CDC Select	2RM	—	—	14.9	—	—	—	—	—	—	—	—
DA 587-124	6RF/M	11.8	—	13.3	—	—	—	—	—	—	—	—
Harrington (20 seeds/ft^2)	2RM	11.6	—	—	—	—	—	—	—	—	—	—
Harrington (40 seeds/ft^2)	2RM	11.4	—	—	—	—	9.4	—	—	—	—	—
Jersey	2RF	—	—	15.1	—	—	9.2	—	—	—	—	—
Samish-23	2RF/M	12.6	—	14.7	—	—	—	—	—	—	—	—
Stab-47	6RF/M	13.6	11.0	15.0	14.2	14.7	—	15.0	13.9	—	12.6	—
Steptoe	6RF	11.5	11.5	13.2	13.1	12.9	—	12.5	12.8	12.6	—	—
TR167	2RF/M	—	—	14.4	—	—	—	—	—	—	—	—
Xena	2RF	11.8	10.1	13.4	—	—	—	12.9	12.6	14.0	—	—
YU 597-390	2RF/M	—	—	14.6	—	—	—	—	—	—	—	—
YU 597-399	2RF/M	12.8	—	14.8	—	—	—	—	—	—	—	—
Cayuse	Oat	—	—	—	—	—	—	—	16.3	—	—	—
Lamont	N Oat	—	—	—	—	—	—	—	22.9	—	—	—
Provena	N Oat	—	—	—	—	—	—	—	23.5	—	—	—
Trial Mean		12.3	10.9	14.4	14.9	15.2	9.8	13.2	14.4	13.9	11.2	13.0
CV		3	9	4	8	3	9	5	4	3	7	
PLSD (0.05)		0.5	1.7	0.9	ns[4]	0.8	ns	1.0	1.0	0.7	1.3	
PLSD (0.10)		0.4	1.4	0.7	ns	0.6	ns	0.8	0.8	0.5	1.0	
Pr>F		0.00	0.00	0.00	0.12	0.00	0.47	0.00	0.00	0.00	0.00	

[1] All seed was treated with fungicide and insecticidal seed treatment unless otherwise noted. Seeding rate was 30 seeds per sq ft for all locations except Lexington, Moro, and Pendleton, where seeding rate was 20 seeds per sq ft unless otherwise noted.
[2] 2R = two row, 6R = six row, F = Feed, M = malt, F/M = being evaluated for malt, N = naked
[3] No data for Klamath Falls (mineral soil)
[4] ns = nonsignificant

Plant Variety Protection (PVP) Notice for the Wheat Variety Winsome

Oregon State University is applying for protection under the U.S. Plant Variety Protection Act for the wheat variety Winsome. PVP law grants OSU a number of ownership rights and restricts certain uses of this variety. OSU has chosen to exercise its legal options to ensure identity and ownership of this variety, but has extended to all interested parties the right to increase and sell certified generations of seed of Winsome. OSU is applying for PVP on Winsome with the Title 5 option, which means that seed of Winsome can be sold only as a class of certified seed. Please be aware that varieties protected by other institutions and private companies may carry additional legal restrictions on seed sales.

PVP Restrictions on the Wheat Variety Winsome

Oregon State University is legally recognized as both the developer and owner of the winter wheat variety Winsome.

Seed of Winsome may be sold by variety name only. "Variety not stated" or "brown bag" sales of seed are not allowed. Seed of Winsome may be sold only as a class of certified seed, per standards established by the Federal Seed Act, the Association of Official Seed Certifying Agencies (AOSCA) and your official state seed certifying agency. Sales of "common" or "brown bag" seed are prohibited.

OSU has chosen to make Winsome available by extending to all growers and seed dealers the right to produce and sell classes of certified seed while retaining other rights and restricting other uses as defined by the PVP Act. Growers may save their own seed whether or not a certified class, for replanting on their own farm, but may not sell seed unless it is a certified class. OSU will not collect a royalty on seed sales. There are no dealer licensing requirements.

The PVP Research Exemption allows for use of Winsome in crossing with other genetic stocks for research and cultivar development efforts. However, under PVP law, Winsome may not be used as a parent of a commercial hybrid cultivar without permission of the owner. Developing a new variety essentially derived from Winsome also is prohibited without permission. That means the variety may not be used as a recurrent parent in backcrossing, or used as a recipient for mutagenesis or other molecular genetic modification, without permission of the owner.

Varieties registered under the Plant Variety Protection Act carry the restrictions listed below. In practice, these restrictions are not uniform among PVP varieties, as owners choose to define "authorized seed dealer" differently. Regarding Winsome, OSU has chosen to extend to all interested growers the right to produce and sell certified classes of seed of Winsome, while retaining other rights and restricting other uses as defined in the PVP Act.

General Provisions of Plant Variety Protection (PVP) Law

PVP establishes ownership of a plant variety.

Seed of a variety under PVP may be sold by variety name only. "Variety not stated" or "brown bag" seed sales are prohibited.

Seed may be sold only by authorized dealers, i.e., those authorized by the owner of the plant variety. Seed may be sold only as a class of certified seed when the Title 5 protection option is specified for a PVP variety.

Under the "PVP Grower Saved Seed Exemption," growers may save seed for replanting on their own farms, but may not sell or give seed to any other party.

Under the "PVP Research Exemption," a variety may be used in crosses with other genetic stocks for research and cultivar development efforts. The variety may not be used as a parent of a commercial hybrid cultivar without permission of the owner. Developing a new variety essentially derived from the original variety also is prohibited without permission. That means the variety may not be used as a recurrent parent in backcrossing, or used as a recipient for mutagenesis or other molecular genetic modification, without permission of the owner.

Violators may be prosecuted in court.

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