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Winter Wheat Varieties For Southern Idaho

Hard red winter wheats are grown on about 345,000 acres of dryland in Idaho, mostly in the southcentral part of the state. These wheats are used primarily for breadmaking if they have acceptable protein level and other desirable characteristics. All the varieties described here have desirable milling and baking properties.

In the southern part of the state, soft white winter wheats are grown in the irrigated areas along the Snake River from Idaho Falls to Weiser. There were approximately 100,000 acres of irrigated winter wheat, mostly Nugaines, grown in the area in 1973. White winter wheats are used primarily for cookies, crackers or pastry.

Hard Red Winter Wheat

Jeff

Jeff is a tall, awned, brown-glumed variety with moderately stiff straw. It is superior to Ranger in seedling vigor and has high resistance to stripe rust and dwarf bunt. It has medium maturity, good yield and test weight and may be suited for production throughout southern Idaho. It is more resistant to shattering than Franklin. Among varieties grown 3 years at 3 Idaho dryland stations, Jeff averaged highest in both yield and test weight.

Ranger

Ranger is an awned, brown-glumed wheat of medium height and maturity. It emerges rather slowly, is somewhat lacking in seedling vigor and has moderately weak straw. It is very resistant to stripe rust and has had less than 5% dwarf bunt in trials in which commercial varieties have had more than 50% infected plants. Ranger has been superior to all but Jeff in average yield among varieties in tests grown at 3 Idaho locations.

Franklin

Franklin is an awned, white-glumed wheat of medium maturity. It is tall with medium-strength straw. Franklin has shown average emergence characteristics and seedling vigor. The variety normally threshes easily, but under certain conditions may show medium to heavy shattering. Franklin is resistant to the prevalent races of stripe rust and dwarf bunt in Idaho. It has never shown more than 2% infection by dwarf bunt.

Heglar

Heglar is an awned, white-glumed, medium-maturity variety with tall, moderately stiff straw. Heglar is resistant to common bunt and stripe rust but is susceptible to dwarf bunt. Therefore, its usefulness will be limited to dwarf bunt-free areas of southern Idaho. It has averaged slightly higher than Tendoy and Wanser in grain yield, test weight and protein content in the southern Idaho trials.

Ark

Ark is highly resistant to stripe rust, common bunt and some races of dwarf bunt. It is a tall, brown-chaffed, awned, Turkey-type wheat. It is nonshattering and has somewhat better straw than Cheyenne or Tendoy. It is medium in yield.

Bridger

Bridger was developed in Utah and released as a dryland variety. It is recommended as a possible replacement for Cache. It has about the same moderate level of dwarf bunt susceptibility as Cache and Delmar, but has better breadmaking qualities than Cache. Bridger is a bronze-chaffed wheat, medium in height and maturity. It stands better than Cache but not as well as Delmar. It has a relatively plump kernel with good test weight and appears to be average in yield for dryland varieties. It is susceptible to stripe rust and moderately susceptible to dwarf bunt. It is not recommended where dwarf bunt is a serious problem.

McCall

McCall is a white-glumed sister selection of Wanser. The 2 varieties are similar in most agronomic and quality characteristics.

Wanser

Wanser is an awned, brown-glumed variety with moderately stiff straw and medium maturity. Under Idaho dryland conditions, it has averaged about 28 inches in height and has been highly resistant to lodging. It is resistant to stripe rust and common bunt and susceptible to dwarf bunt. It has produced average yields of medium to high test-weight grain under Idaho conditions. Grain-protein content of Wanser averages about 1% lower than that of other varieties.

Tendoy

Tendoy is a medium-height, moderately weak-strawed variety of medium maturity. Spikes of Tendoy are awned and white-glumed. They have a tendency toward light shattering. Tendoy is resistant to stripe rust and common bunt and susceptible to dwarf bunt. It produces average yields of medium test-weight, good-quality grain. Under most conditions, Tendoy does not yield as well as Heglar, Jeff, Ranger or Wanser.

Soft White Winter Wheat

Nugaines

Nugaines has been the highest-yielding soft white winter wheat tested at Aberdeen and Twin Falls. It has yielded up to 145 bushels per acre in irrigated trials at these locations. Nugaines is a short-strawed wheat with long common heads, white chaff and beards. Test weight has averaged around 61 to 62 pounds per bushel, or about 1 pound more than Gaines.

Nugaines is highly resistant to all known races of common bunt but is susceptible to dwarf bunt. Nugaines has a better milling score than Gaines. This and higher average test weight are its greatest advantages over Gaines. Like Gaines, its flour is of good quality for pastries, cookies and other soft wheat products.

Luke

Luke is a soft white, semidwarf wheat, similar to Gaines and Nugaines. It is resistant to all known races of common and dwarf bunt. It was released primarily as an alternative to Gaines and Nugaines in areas of Oregon, Washington and northern Idaho where dwarf bunt is a problem. It is similar to Gaines in winterhardiness, growth habit and general appearance, but has slightly weaker straw. Milling quality is unusually good for soft white wheat. Baking quality is similar to that of Gaines. In yield tests at Aberdeen and Twin Falls, Luke has averaged 7 bushels per acre less than Nugaines.

Hyslop

Hyslop is a soft white semidwarf winter wheat which has shown superior yielding ability and wide adaptation to varied growing conditions in several western states. It is an awned wheat, similar to Luke, with short, stiff straw and white chaff. In irrigated test at Aberdeen, Hyslop yielded 7 bushels per acre less than Nugaines. In trials at Ontario, Oregon, Hyslop outyielded Nugaines by about 5 bushels. Test weight is not as good as Nugaines, but milling and baking qualities are equal to or better than other soft white winter wheat varieties. Hyslop has good emergence, rapid growth and early spring recovery. It seems to use nitrogen more effectively than other varieties.

Hyslop has better common bunt resistance than Gaines and Nugaines, but is not as winterhardy as those varieties. This may account for the reversal in yield advantage that occurred between Hyslop and Nugaines when they were grown at Aberdeen and Ontario.

Coulee, Paha, Yamhill and McDermid have been tested at Aberdeen, but none yielded as well as Nugaines at that location.

Sprague

Sprague may be of some use in dryland areas where snow mold is a problem. It is moderately resistant to snow mold but will not survive when exposed to the severe snow mold infections found in some parts of Idaho. It is susceptible to dwarf bunt, which limits it to bunt-free areas. Sprague is a soft white semidwarf wheat, about 4 inches taller than Nugaines. It is weak-strawed and heads 3 days earlier than Nugaines. The small, awnleted heads produce small kernels which are lower in test weight than Nugaines. Sprague yields less than Nugaines under irrigated conditions. Adequate Idaho dryland performance data have not been accumulated.

Summary of agronomic data on hard red winter wheat varieties grown at several locations in southern Idaho.

1971-1973 (3-year averages)

Variety	Yield, bu/acre				Protein content, %				Test weight, lb/bu			
	Heglar	Preston	Tetonia	3-station average	Heglar	Preston	Tetonia	3-station average	Heglar	Preston	Tetonia	3-station average
Wanser	31.4	38.6	41.4	37.1	9.2	12.3	14.8	12.1	62.2	61.4	59.1	60.9
Ranger	34.6	43.3	41.1	39.7	10.6	13.3	15.4	13.1	63.1	60.5	59.3	61.0
Ark	33.3	38.7	36.8	36.3	10.9	13.4	16.2	13.5	62.5	61.1	59.5	61.0
Franklin	35.1	42.1	35.9*	37.7	10.3	13.3	16.5	13.4	62.3	60.7	59.3	60.8
Jeff	34.7	48.9	40.1	41.2	10.2	12.0	15.8	12.7	63.7	62.8	59.7	62.1
Heglar	34.1	44.3	39.6	39.3	11.1	13.5	15.8	13.5	63.4	62.1	59.4	61.6

Variety	Date headed		Height, inches				Dwarf bunt
	1971 & 1973 (2-year average)		1971	1972	1973	3-station	
	Tetonia	Aberdeen	Tetonia	Preston	Tetonia	average	%
Wanser	7/6	6/13	26	37	21	28	60
Ranger	3	12	29	36	24	30	4
Ark	5	15	29	43	22	31	8
Franklin	6	16	32	45	24	34	1
Jeff	4	14	30	43	23	32	1
Heglar	4	15	30	42	22	31	50

*1973 Tetonia yield reduced by shattering.

Summary of agronomic data on soft white winter wheat varieties grown under irrigation at Twin Falls in 1970 and at Aberdeen in 1971-1973.

Variety	Yield, bu/acre		Test weight, lb/bu		Height, inches		Date headed	
	4-year average 1970-1973	2-year average 1972-1973	4-year average 1970-1973	2-year average 1972-1973	4-year average 1970-1973	2-year average 1972-1973	3-year average 1971-1973	2-year average 1972-1973
Nugaines	115.7	109.2	61.5	61.1	33	33	6/15	6/15
McDermid	109.8		60.1		35		14	
Hyslop	108.6		58.8		36		16	
Luke	108.7		59.9		35		18	
Coulee	107.8		61.9		33		14	
Paha	100.4		59.5		38		18	
Sprague	-----	94.2	----	60.0	--	37	--	13

Wheat research programs at the University of Idaho Research and Extension Center, Aberdeen, are conducted cooperatively by the Western Region, Agricultural Research Service, U.S. Department of Agriculture, and the Idaho Agricultural Experiment Station.

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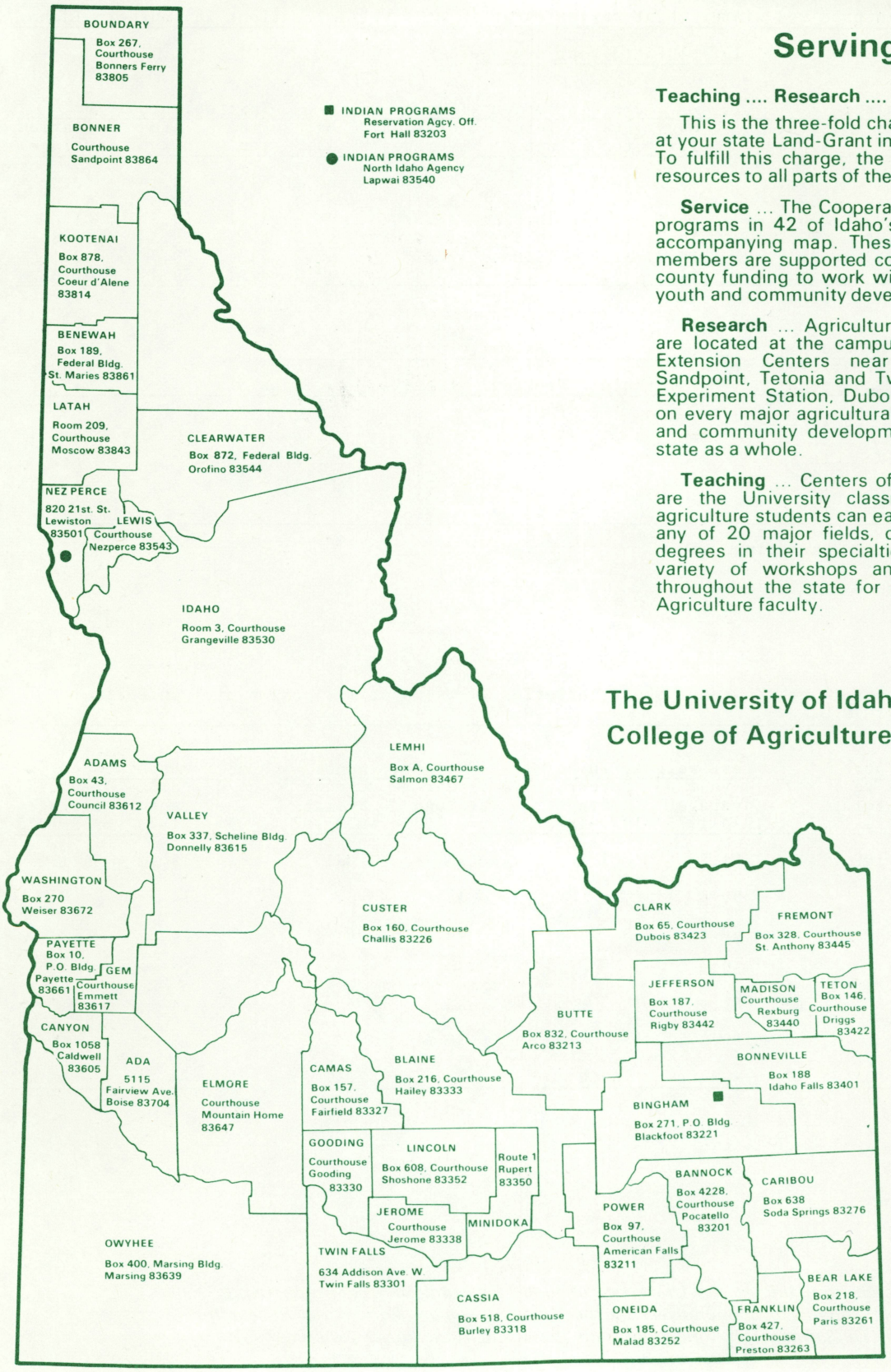

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