

**1986 REGIONAL BARLEY, COMMON AND DURUM WHEAT, TRITICALE,
AND OAT PERFORMANCE TESTS IN CALIFORNIA**

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University of California Cooperative Extension regional cereal evaluation tests were conducted in the Sacramento, San Joaquin, and Imperial Valleys and in the south central coastal region in 1986. Entries in the tests included standard cultivars, new and soon-to-be released cultivars, and advanced breeding lines from the University of California, the International Maize and Wheat Improvement Center (CIMMYT), and several private companies. Barleys (20 entries) were evaluated at 8 locations; common wheats (33 entries), at 9 locations; durum wheats (27 entries), at 4 locations; triticales (12 entries), at 4 locations; and oats (19 entries), at 3 locations. Evaluations of the triticales and oats for forage production were conducted at 3 locations.

Tests were conducted on University of California field stations or on fields of cooperating growers. Plots, planted at a rate equivalent to 100 lb of seed per acre (60 lb rate for oats) in randomized complete block designs with four replications, were six drill rows wide (6-inch row spacing) and 25 feet long, except at Imperial Valley Field Station where plots consisted of five rows, 16 feet long. Plots in the Sacramento-San Joaquin Delta were planted at the rate of 150 lb of seed per acre. Grain was harvested with a Wintersteiger Seedmaster Universal 150 plot combine. Foliar diseases were assessed at the soft-to-medium dough stage of growth by estimating the percentages of areas of second leaves (flag-1 leaf) affected.

¹These tests were conducted as a joint program of the University of California Department of Agronomy and Range Science and Cooperative Extension. Land for the tests, the grain produced and other facilities were contributed by cooperating growers identified in Table 1. Quality evaluations were provided by the Hard Red Spring and Durum Wheat Quality Laboratory, USDA, North Dakota State University, Fargo, North Dakota; the Western Wheat Quality Laboratory, USDA, Pullman, Washington; and General Mills, Inc., Vallejo and Vernon, California. The assistance of growers and quality laboratories is acknowledged with appreciation. The regional testing program is supported in part by funds provided by the California Crop Improvement Association and the California Wheat Commission.

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Kern, Sacramento, San Luis Obispo, Imperial, Butte, Sutter, and Tulare Counties, respectively.

BYD assessments, however, were based on the percentages of plants showing symptoms. Black point and yellow berry of wheat were assessed on grain samples after harvest. Yields, test weights, kernel weights, plant heights, days to heading and maturity, lodging, shattering, disease reactions, and grain quality were determined as indicated in the tables. Information (location, planting dates, soil types, previous crops, fertilization and irrigation amounts, and rainfall data) regarding each site is given in Table 1.

The California Crop and Livestock Reporting Service estimated 1986 harvested wheat acreage at 675,000 acres (including 75,000 acres of durum wheat), down 19% from 1985, and harvested barley acreage at 400,000 acres, down 5% from 1985. Wheat yields were projected to be off by 9% (2% for durum) while barley yields were off by 4% compared to 1985. The 1986 crop was produced under conditions of 140-150% of normal rainfall, with heavy flooding in many areas in February, and a relatively warm late winter and spring. Average weekly temperatures for the ten week period from the beginning of January through the first week of March were at least 4°F above normal in 8 of 10 weeks in most regions. The crop matured earlier (1-3 weeks) than normal in the major grain producing areas, possibly as a result of the very mild winter. Frequent rain showers from January through the latter part of March and mild temperatures favored foliar diseases, especially *Septoria tritici* blotch of wheat and scald and net blotch of barley. Heavy rainfall also caused drown-out in some areas, including the Sacramento-San Joaquin Delta location.

BARLEY

Average yields for the 8 barley tests ranged from 1670 lb/a (1240-2150 lb/a) at San Luis Obispo (rainfed) to 6310 lb/a (4160-7900 lb/a) at Butte (Tables 2-10). Entries NK XBB-86-2, NK XBB-86-1, and NK BB-85 were the highest yielding entries in the Sacramento Valley; entries NK BB-85, UC80206, NK XBB-86-3, NK XBB-86-2, and NK XBB-86-1, in the San Joaquin Valley; and entries NK XBB-86-2, UC 337, UC79083, NK XBB-86-1, and NK XBB-86-3, in the dryland areas. In the three year period, 1984-86, entries UC 337 and UC80206 were the highest yielding in the Sacramento Valley; entries UC 337, UC 476, and NK BB-82-2, in the San Joaquin Valley; and entries UC 337, CM 72, and Prato, in dryland areas.

Diseases of most importance in 1986 included scald (at Sutter, UC Davis, Yolo, and San Luis Obispo), and net blotch (at UC West Side Field Station, Kings, Kern, Yolo, and Sutter). Entries particularly susceptible to scald included UC 566, CM 72, Barcott, Sunbar Br 401, BFP 8175, and Fiesta. Entries particularly susceptible to net blotch included Prato, Gustoe, Fiesta, CM 72, UC81041, Briggs, and UC 476. Entries with a low reaction (resistant) to both net blotch and scald included NK XBB-86-3, UC80074-1, UC80206, UC79083, and UC 337. Other diseases (BYD, powdery mildew, and leaf rust) did not occur at yield-damaging levels.

Lodging was severe at Butte, Sutter, UC West Side Field Station, Kings, and Kern. Entries with low amounts of lodging included UC80206 and NK BB-

85. Bushel weights and kernel weights were high at all locations, with entries UC79083, UC 337 and Gustoe producing consistently high bushel weights; and UC 566 and UC79083, high kernel weights.

COMMON WHEAT

Average yields for the nine common wheat tests ranged from 1750 lb/a (1100-2350 lb/a) at San Luis Obispo (rainfed) to 6440 lb/a (3680-7610 lb/a) at Kings (Tables 11-20). Entries BH 202, UC 683, UC 681, BH 205, and Tadinia were the highest yielding in the Sacramento Valley; Klasic, UC 683, NK 83S216, and Probrand 775, in the San Joaquin Valley; and UC 683, Tadinia, Phoenix, CM 16076, and Seri 82, in the dryland areas. In the three year period 1984-86, entries Yolo, UC 633, CM 16076, Tadinia, and Anza were the highest yielding in the Sacramento Valley; Klasic, Yolo, UC 633, and Probrand 775, in the San Joaquin Valley; and CM 16076, Tadinia, UC 633, Probrand 775, and Anza, in the dryland areas.

Septoria tritici blotch was severe in 1986, particularly at Sutter, Butte, Yolo (rainfed), UC Davis, and the Sacramento-San Joaquin Delta. Entries with a low disease reaction (resistant) included BH 205, UC 681, UC 682, UC 683, Tadinia, and BH 202. Other diseases (leaf rust, stripe rust, powdery mildew, and BYD) did not occur at yield-damaging levels.

Lodging was severe on common wheats in 1986, especially at Butte, UC West Side Field Station, Kern, and Kings. Entries showing good lodging resistance included UC 683, BH 205, Westbred 911, and Seri 82. Bushel weights were high at all locations, while kernel weights were especially high at Butte and Yolo (rainfed). Entries with especially high bushel weights included UC 703 and P983-102. Entries with especially high kernel weights included BH 100, S8330501, Westbred 911, Yecora Rojo, and Klasic.

Grain protein content (12% moisture basis) was determined on samples from Sutter, UC Davis, and Kings (Table 21), and averaged 11.06, 10.50, and 12.48%, respectively, at those locations. Entries with high average protein contents included UC 702, P983-13, UC 703, P983-69, P983-102, and Yecora Rojo. Quality analyses of 1985 nurseries (Tables 22 and 23) showed low protein content of samples from Butte and Sutter, but medium to high protein content of samples from UC Davis, the Sacramento-San Joaquin Delta, and Kings. Milling characteristics of most entries ranged from good to excellent. Samples of Klasic, CM 16076, Yolo, and UC 637 from UC Davis were best for milling (highest flour yields and lowest ash). The two best samples overall (strongest for use in bread baking flour) from UC Davis were Klasic and CM 16076. Samples of entries IPRI 8314, CM 16076, and MP-302 from Kings were rated as having particularly promising overall quality characteristics.

DURUM WHEAT

Average yields of the four durum wheat tests (Tables 24-28) ranged from 1520 lb/a (860-2570 lb/a) in the Sacramento-San Joaquin Delta where there was considerable drown-out due to heavy rains in February, to 8140 lb/a (7250-9680 lb/a) at Imperial. Entries Altar 84 and Westbred Turbo were the highest yielding in 1986, while Rokel'S', Frigate 'S' and Stifftail 4 were

the highest yielding in the three-year period 1984-86.

Lodging was severe at Kings and moderate at Imperial. All entries lodged at Kings, while no lodging was recorded for entries Aldura, P883-15, UC 710, and P884-32 at Imperial. Septoria tritici blotch occurred at UC Davis and in the Sacramento-San Joaquin Delta. Entries particularly susceptible included UC 640, P883-15, UC 707, UC 708, UC 713, and P884-32. Other diseases did not occur at yield-damaging levels.

Bushel weights and kernel weights were high at all locations. Entries Altar 84, Yavaros, and CD 25126 had the highest bushel weights, while entries Stiffball 3, UC 712, Westbred Turbo, and P883-15 had the highest kernel weights. Grain protein content (12% moisture basis) averaged 10.12%, 12.7%, and 12.36% at UC Davis, Kings, and Imperial, respectively (Table 29). Entries UC 640, Westbred 881, P883-2, and UC 708 had the highest grain protein content overall. Quality analysis of the 1986 samples (Table 30) showed that only entry UC 640 had good overall quality from the lower protein samples from UC Davis, while entries Westbred 881, UC 640, P883-2, P883-15, UC 712, Frigate 'S', and Waha 'S' showed good quality in both of the higher protein samples from Kings and Imperial. Quality analysis of samples from the 1985 tests (Tables 31 and 32) showed that samples from UC Davis had high protein content while samples from Imperial had moderate to high protein content. Entries NK 79D893, P883-2, P883-22, P883-21, and Westbred 881 were rated highest of the UC Davis samples, while Westbred 881, P883-2, and P883-15 were rated highest of the Imperial samples.

TRITICALE

Average yields in the four triticale tests ranged from 5530 lb/a (4210-7010 lb/a) at Kings to 6450 lb/a (5210-7370 lb/a) at Sutter (Tables 33-37). Entries Juan and CIN-CNO*BGL/Merino 'S' were the highest yielding in 1986, while Juan was the highest yielding in the three-year period 1984-86. Entry Juan yielded an average of 19% more than the common wheat Yolo at the four locations in 1986.

Lodging was severe at Kings and moderate at UC Davis and Imperial. Entries UC 53 and Nutricale S-405 showed the best lodging resistance. Diseases were not important on the triticales in 1986.

Average bushel weights of the triticales were lower than those of the wheats, while kernel weights were considerably higher. Entries with consistently high bushel weights included CIN-CNO*BGL/Merino 'S', Nutricale S-205, Nutricale S-505, and Juan, while entries Nutricale S-205 and Juan had consistently high kernel weights. Grain protein content (12% moisture basis) of the triticales averaged 10.74%, 8.19%, 12.02%, and 12.0%, at Sutter, UC Davis, Kings, and Imperial, respectively (Table 38). Entries UC 53 and Nutricale S-505 had the highest average grain protein content.

Triticale forage tests were conducted at Tulare and Stanislaus (Table 39). Entries UC 52, UC 51, Nutricale S-405, and Nutricale S-205 produced the highest dry matter yields at Tulare; Nutricale S-405, at Stanislaus.

OATS

Average yields of the three oat tests ranged from 2910 lb/a (1030-4740 lb/a) at UC Davis to 3280 lb/a (1890-4300 lb/a) at Yolo (rainfed) (Tables 40-43). Entries 75Q-036-83-1D, A82-0034, and Swan were the highest yielding in 1986, while Swan and Sierra were the highest yielding in the three-year period 1984-86.

Oat forage tests were conducted at three locations (Table 44). Highest dry matter yields were produced by entries Ogie, A82-0034, Appaloosa, and Cayuse at Tulare; Swan, Cayuse, MO 06072, and Jaycee at Yolo (rainfed); and Appaloosa and Cayuse at Stanislaus.

Table 1. Site Characteristics for UC Regional Cereal Evaluation Tests, 1986

Location	Test	Planting Date	Soil Type	1985 Crop	Fertilization	Irrigation	Rainfall	
							Seas./After Plant.	
Butte County Dutro Ranch Chico	Common wheat Barley	11/15/85	Farwell clay adobe	Sugarbeets	Preplant: 90# N (urea) With seed: 100# -033-0-25(S) Topdress: 46# N (urea)	Furrow: 2x (10" total)	24.70"/22.03"	
					Imperial County UC IVAC El Centro	Durum wheat Triticale	12/17/85 12/16/85	Meloland clay loam
Kern County J.G. Boswell Kern Lake Ranch Old River	Common wheat Barley	12/10/85	Sacramento clay	Safflower	Preplant: 100# 11-48-0 105# N (NH ₃) (barley) 203# N (NH ₃) (wheat) Topdress: 20# N (UN-32) (wheat)	Flood (wheat): 4x (12" total) Flood (barley): 2x (6" total)	6.5"/4.0"	
					Kings County J.G. Boswell Homeland Ranch Corcoran	Common wheat Durum wheat Triticale Barley	12/12/85	Tulare loam
Sacramento County M&T Ranch Staten Island Walnut Grove	Common wheat Durum wheat	11/19/85	Staten peat muck	Corn	With seed: 145# 11-48-0-2(S)	None	28.0"/18.0"	
					San Luis Obispo White Ranch Shandon	Common wheat Barley	11/21/85	Rincon clay loam
Sutter County Newhall Land and Farming Meridian	Common wheat Triticale Barley	11/6/85	Nueva loam	Watermelon	Preplant: 90# N (aqua) Topdress: 33# N (NH ₃ SO ₄)	None	26.86"/25.97"	

Table 1. Site Characteristics (cont'd)

Location	Test	Planting Date	Soil Type	1985 Crop	Fertilization	Irrigation	Rainfall	
							Seas.	After Plant.
Tulare County ICI Americas Farmersville	Triticale Oats	12/11/85	Foster fine sandy loam	Wheat	Preplant: 100# urea Topdress: 50# 34-0-0	Flood (triticale): 2x (10.4" total) Flood (oats): 3x (15.6" total)	13.87"	9.75"
					Preplant (wheat): 160# N (NH ₃) Preplant (barley, oats): 80# N (NH ₃)	Flood (wheat): 1x (6")	27.39"	26.54"
UC Davis Agronomy Farm Davis	Common wheat Durum wheat Triticale Barley Oats	10/31/85	Yolo fine sandy loam	Sudangrass				
		" " 10/30/85 "						
UC West Side Field Station Five Points	Common wheat Barley	12/20/85	Panocche clay loam	Corn silage	Preplant: 160# NH ₃ SO ₄	Flood (wheat): 3x (16.4" total) Flood (barley): 2x (11.0" total)	9.22"	5.95"
						None		
Yolo County Durst Ranch Dunnigan	Common wheat Barley Oats	12/18/85	Rincon silty clay loam	Fallow	With seed: 95# 16-20-0 Topdress: 100# 33.5-0-0		26.61"	20.05"

Table 2. 1986 Butte Barley Test

Entry	Yield lbs/acre	Plant height (In)	Lodging on 4/18	Lodging at harvest	BYDV	Net blotch	Scald	Test weight (lb/bu)	Thousand kernel weight (grams)
2 Briggs	5580 (17)	39	1.0	5.0	1.0	1.0	1.0	50.7	47.6
190 UC 566	5030 (19)	42	1.3	5.3	1.0	1.0	1.5	52.8	50.3
191 CM 72	4160 (20)	40	6.3	6.3	1.0	1.0	1.0	53.2	50.5
316 Prato	6180 (12)	38	1.0	5.3	1.0	1.8	1.0	53.0	42.7
337 UC 337	7040 (5)	40	1.0	4.8	1.0	1.0	1.0	53.0	42.5
466 Sunbar BR 401	6200 (10)	32	1.0	5.8	1.0	1.0	1.0	51.1	46.0
476 UC 476	6130 (14)	38	1.0	3.3	1.0	1.0	1.0	53.9	44.3
529 UC79083	6600 (7)	40	1.0	5.0	1.0	1.0	1.0	55.9	48.2
584 NK BB-82-2	7250 (4)	38	1.0	3.3	1.0	1.0	1.0	52.3	48.5
603 UC80206	6160 (13)	34	1.0	2.5	1.0	1.0	1.0	50.9	41.5
618 Gustoe	6430 (9)	30	1.0	5.0	1.0	1.0	1.5	53.6	44.3
674 UC81041	6590 (8)	39	1.0	4.0	1.0	1.0	1.0	50.6	41.5
703 Fiesta	6020 (15)	30	1.0	4.0	1.0	1.0	1.0	54.9	50.5
705 NK BB 85	7260 (3)	34	1.0	2.0	1.3	1.0	1.0	53.3	46.3
711 UC80074-1	6190 (11)	36	1.0	4.8	1.0	1.0	1.0	52.9	42.8
727 Barcott	5310 (18)	35	1.0	4.5	1.8	1.0	1.5	51.7	39.3
728 BFP 8175	6000 (16)	35	1.0	4.8	1.0	1.0	1.3	53.1	44.9
729 NK XBB-86-1	7410 (2)	31	1.0	3.0	1.0	1.0	1.0	52.4	46.6
730 NK XBB-86-2	7900 (1)	33	1.0	3.3	1.0	1.0	1.0	52.0	47.2
731 NK XBB-86-3	6810 (6)	35	1.0	3.3	1.3	1.0	1.0	52.2	49.0
Mean	6310	36	1.3	4.2	1.1	1.0	1.1	52.7	45.7
CV	11.1	5.9	30.9	25.8	25.3	10.8	23.1	2.0	2.5
LSD (.05)	990	3	0.6	1.5	0.4	0.2	0.4	2.2	2.4

Rating scale for diseases (area of flag-1 leaf affected), lodging: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: leaf rust and Powdery mildew.

Numbers in parentheses indicate relative rank in column.

BYDV ratings (see scale above) were based on percentage of plants showing foliar symptoms.

Table 3. 1986 Sutter Barley Test

Entry	Yield lbs/acre	Plant height (In)	Lodging on 4/17	Lodging at harvest	Leaf rust	Net blotch	Scald	Powdery mildew	Test weight (lb/bu)	Thousand kernel weight (grams)
2 Br Iggs	3220 (17)	43	4.8	6.5	1.0	1.5	3.5	1.0	48.4	42.3
190 UC 566	3230 (16)	38	3.3	4.8	1.0	1.0	6.0	1.0	51.4	50.8
191 CM 72	2540 (19)	38	6.3	7.3	1.0	1.0	5.3	1.0	53.1	44.8
316 Prato	3920 (13)	40	3.0	5.5	1.0	3.0	1.3	1.0	49.5	40.2
337 UC 337	5140 (6)	43	1.3	2.5	1.0	1.5	1.8	2.5	52.5	42.7
466 Sunbar BR 401	4410 (10)	36	2.5	4.3	1.0	1.0	4.0	1.3	50.0	44.8
476 UC 476	3850 (14)	40	1.8	4.8	1.3	2.5	2.8	1.0	51.0	41.7
529 UC79083	4640 (9)	42	2.3	4.5	1.8	1.0	1.5	1.0	51.5	47.4
584 NK BB-82-2	4890 (8)	42	1.0	4.0	1.0	2.3	1.3	2.0	48.7	45.2
603 UC80206	4990 (7)	38	1.0	1.5	1.5	1.3	1.3	1.0	51.3	40.4
618 Gustoe	4010 (12)	35	1.0	5.0	1.3	2.3	2.5	1.5	50.6	35.5
674 UC81041	5270 (5)	40	1.3	3.5	1.0	2.5	1.3	1.0	48.4	41.7
703 Fiestta	3180 (18)	33	1.0	5.5	1.0	2.3	3.5	1.0	53.5	44.0
705 NK BB 85	5770 (3)	40	1.0	3.0	1.3	2.3	1.3	1.5	51.1	44.1
711 UC80074-1	4390 (11)	40	2.0	3.8	1.0	1.3	1.3	1.0	51.3	45.0
727 Barcott	2490 (20)	35	1.8	5.3	1.8	1.3	5.5	1.0	46.5	34.2
728 BFP 8175	3710 (15)	37	1.8	5.0	1.3	1.8	3.8	1.0	52.7	44.5
729 NK XBB-86-1	5980 (1)	40	1.3	3.5	1.0	1.5	1.0	1.8	50.9	45.7
730 NK XBB-86-2	5600 (4)	36	1.0	2.8	1.3	1.3	1.8	1.0	51.6	47.0
731 NK XBB-86-3	5780 (2)	39	1.0	2.8	1.3	1.0	1.0	1.3	52.3	45.2
Mean	4350	39	2.0	4.3	1.2	1.7	2.6	1.2	50.8	43.3
CV	11.8	4.2	33.9	22.8	32.8	36.3	50.9	28.5	2.1	4.2
LSD (.05)	730	2	1.0	1.4	0.5	0.9	1.8	0.5	2.2	3.8

Rating scale for diseases (area of flag-1 leaf affected) and lodging: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: BYDV.

Numbers in parentheses indicate relative rank in column.

Table 4. 1986 UC Davis Barley Test

Entry	Yield lbs/acre	Plant height (in)	Lodging at harvest	BYDV	Net blotch	Scald	Days to heading (after 3/1)	Days to maturity (after 3/1)	Test weight (lb/bu)	Thousand kernel weight (grams)
2 Briggs	3930 (15)	42	4.3	1.8	2.0	3.3	25	66	50.7	44.7
190 UC 566	3020 (20)	40	4.8	1.0	1.0	7.5	27	72	50.9	45.5
191 CM 72	3120 (19)	36	5.5	1.0	1.5	6.5	25	65	51.1	42.5
316 Prato	4350 (14)	39	3.0	1.0	2.8	3.0	27	67	49.2	41.6
337 UC 337	5440 (8)	44	1.0	1.0	1.3	2.8	29	74	54.3	41.4
466 Sunbar BR 401	3420 (17)	34	3.3	1.0	1.0	6.0	29	69	48.9	37.5
476 UC 476	4670 (11)	41	2.3	1.0	1.8	3.5	29	68	51.2	39.7
529 UC79083	6090 (4)	46	1.0	1.0	1.0	2.0	33	77	54.2	49.6
584 NK BB-82-2	5550 (7)	43	1.0	1.0	1.5	2.8	31	75	50.0	43.5
603 UC80206	5390 (9)	39	1.0	1.0	1.3	2.8	25	68	52.5	40.5
618 Gustoe	4410 (13)	32	1.3	1.0	1.5	3.8	36	76	53.3	38.2
674 UC81041	6090 (3)	43	1.0	1.3	2.3	1.8	27	73	49.9	39.8
703 Flesta	3800 (16)	31	2.8	1.0	2.3	3.5	23	68	52.3	40.3
705 NK BB 85	5970 (5)	38	1.0	1.3	1.3	2.3	30	72	52.4	45.0
711 UC80074-1	5090 (10)	41	1.0	1.0	1.0	1.5	30	72	52.0	43.2
727 Barcott	3280 (18)	31	3.8	1.0	1.0	7.0	18	61	46.8	31.2
728 BFP 8175	4460 (12)	38	1.8	1.0	1.0	4.8	24	69	53.3	42.4
729 NK XBB-86-1	6420 (1)	40	1.3	1.0	1.5	2.0	27	74	51.6	44.1
730 NK XBB-86-2	6330 (2)	36	1.0	1.0	1.0	2.0	25	74	53.3	45.7
731 NK XBB-86-3	5710 (6)	39	1.3	1.3	1.0	2.8	26	74	52.8	45.3
Mean	4830	39	2.2	1.1	1.4	3.6	27	71	51.5	42.1
CV	7.0	3.9	28.5	26.3	27.7	17.1			1.3	2.7
LSD (.05)	480	2	0.9	0.4	0.6	0.9			1.4	2.4

Rating scale for diseases (area of flag-1 leaf affected) and lodging: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: leaf rust and Powdery mildew.

Numbers in parentheses indicate relative rank in column.

BYDV ratings (see scale above) were based on percentage of plants showing foliar symptoms.

Table 5. 1986 UC West Side Field Station Barley Test

	Yield (lb/a)	Plant height (in)	Lodging on 4/15	Lodging at harvest	BYDV	Leaf rust	Net blotch	Scald	Powdery mildew	Test weight (lb/bu)	Thousand kernel weight (grams)
2 Briggs	3700 (20)	40	6.5	6.0	3.3	1.0	3.3	1.8	1.0	49.9	43.4
190 UC 566	5920 (4)	36	4.3	5.8	1.5	1.3	2.5	2.0	1.3	51.5	48.0
191 CM 72	4310 (16)	37	5.0	6.8	1.0	1.0	3.8	1.8	1.8	52.7	46.2
316 Prato	5220 (11)	38	4.5	5.8	1.3	1.0	2.5	1.5	1.3	52.7	40.8
337 UC 337	5710 (7)	40	4.0	4.8	1.0	1.3	2.0	1.3	1.3	54.7	41.2
466 Sunbar BR 401	5070 (12)	32	2.8	4.8	1.3	1.8	2.3	1.0	1.5	53.8	47.3
476 UC 476	5420 (9)	37	2.8	4.3	1.0	1.5	3.3	1.0	1.8	53.8	45.7
529 UC79083	5680 (8)	37	5.3	4.0	1.5	2.0	2.5	1.3	1.3	56.6	47.9
584 NK BB-82-2	5050 (13)	39	2.3	3.3	2.0	1.5	2.0	1.3	1.5	51.8	45.3
603 UC80206	6330 (1)	36	4.5	3.8	1.3	1.5	2.3	1.3	2.0	53.2	38.7
618 Gustoe	4140 (18)	33	3.0	5.0	1.0	1.0	3.3	1.3	3.3	55.1	41.8
674 UC81041	5280 (10)	35	4.8	5.3	1.3	2.3	2.3	1.5	1.3	51.0	39.0
703 Flesta	4970 (15)	33	3.8	6.3	1.0	1.8	2.8	1.3	2.0	54.0	42.7
705 NK BB 85	6150 (3)	35	4.0	3.3	1.0	1.5	2.5	1.3	1.5	53.2	45.5
711 UC80074-1	5050 (14)	36	3.0	4.5	1.3	1.5	2.3	1.0	1.3	52.7	41.8
727 Barcott	4230 (17)	34	6.3	6.0	2.8	1.5	2.3	1.5	2.0	51.3	38.8
728 BFP 8175	4110 (19)	35	4.5	6.3	2.5	1.8	2.3	1.3	1.5	51.9	42.3
729 NK XBB-86-1	5740 (6)	37	3.5	3.3	1.5	1.0	2.0	1.3	2.3	53.0	44.2
730 NK XBB-86-2	5860 (5)	38	2.8	4.0	1.3	1.5	2.8	1.3	1.5	53.3	45.1
731 NK XBB-86-3	6290 (2)	37	4.0	4.5	2.5	1.5	3.0	1.0	3.3	54.3	44.5
Mean	5210	36	4.1	4.9	1.5	1.5	2.6	1.3	1.7	53.0	43.5
CV	11.3	5.8	53.8	18.8	30.6	38.1	39.2	44.1	60.2	1.6	3.4
LSD (.05)	830	3	NS	1.3	0.7	0.8	NS	NS	NS	1.8	3.1

Rating scale for diseases (area of flag-1 leaf affected) and lodging: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Numbers in parentheses indicate relative rank in column.

BYDV ratings (see scale above) were based on percentage of plants showing foliar symptoms.

Table 6. 1986 Kings Barley Test

Entry	Yield (lb/a)	Plant height (in)	Lodging on 4/14	Lodging at harvest	Leaf rust	Net bleich	Powdery mildew	Test weight (lb/bu)	Thousand kernel weight (grams)
2 Br Iggs	3900 (20)	39	3.3	5.3	1.3	2.0	1.0	51.9	43.3
190 UC 566	4390 (13)	40	2.5	4.5	1.0	2.8	1.0	53.8	47.3
191 CM 72	3970 (19)	33	5.5	7.3	1.0	3.8	1.0	51.6	43.6
316 Prato	4320 (14)	37	2.5	2.5	1.0	3.3	1.0	52.0	38.3
337 UC 337	4410 (12)	40	1.3	4.5	1.0	1.5	1.0	56.2	41.0
466 Sunbar BR 401	4720 (11)	35	1.3	3.0	1.0	2.0	1.5	53.4	44.3
476 UC 476	4030 (18)	36	1.5	3.5	1.0	2.0	1.0	53.9	41.3
529 UC79083	4910 (10)	43	3.3	4.8	1.0	1.8	1.0	55.3	45.2
584 NK BB-82-2	5620 (5)	41	1.0	1.3	1.0	1.8	1.0	52.7	45.0
603 UC80206	5830 (1)	36	1.0	1.3	1.0	2.0	1.3	54.3	37.8
618 Gustoe	5160 (8)	34	1.0	1.3	1.0	2.3	1.5	53.0	35.4
674 UC81041	4320 (15)	36	2.0	3.3	1.0	2.3	1.0	52.0	39.1
703 Flesta	4220 (16)	34	1.0	4.8	1.0	3.5	1.0	54.5	43.2
705 NK BB 85	5770 (3)	38	1.0	1.5	1.0	1.8	1.0	53.7	40.8
711 UC80074-1	4190 (17)	35	1.5	2.5	1.0	1.3	1.0	52.0	41.9
727 Barcott	5540 (6)	35	1.8	1.3	1.3	2.0	1.0	53.1	39.5
728 BFP 8175	5080 (9)	36	1.0	2.3	1.3	2.5	1.0	56.3	41.3
729 NK XBB-86-1	5650 (4)	38	1.0	1.5	1.0	2.0	1.0	53.1	41.5
730 NK XBB-86-2	5800 (2)	38	1.0	1.5	1.3	2.0	1.0	55.2	43.1
731 NK XBB-86-3	5210 (7)	39	1.0	2.0	1.5	1.3	1.0	55.8	43.7
Mean	4850	37	1.8	3.0	1.1	2.2	1.1	53.7	41.8
CV	9.1	4.7	44.2	28.5	23.2	21.1	20.1	0.8	2.2
LSD (.05)	630	2	1.1	1.2	NS	0.7	0.3	0.9	1.9

Rating scale for diseases (area of flag-1 leaf affected) and lodging: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: BYDV and Scald.

Numbers in parentheses indicate relative rank in column.

Table 7. 1986 Kern Barley Test

Entry	Yield (lb/a)	Plant height (in)	Lodging on 4/15	Lodging at harvest	Net blotch	Powdery mildew	Test weight (lb/bu)	Thousand kernel weight (grams)
2 Br lggs	3100 (20)	33	4.8	5.3	1.8	1.8	53.6	47.1
190 UC 566	3950 (15)	34	5.3	6.3	3.5	1.0	54.1	49.4
191 CM 72	4140 (14)	32	6.0	7.3	3.8	1.8	54.5	46.5
316 Prato	3800 (16)	31	5.0	5.3	2.5	1.3	54.5	43.3
337 UC 337	5440 (1)	36	2.0	2.8	2.0	1.8	56.5	41.5
466 Sunbar BR 401	3630 (17)	29	2.8	5.0	3.3	2.0	54.2	46.3
476 UC 476	4670 (11)	34	3.3	3.3	2.0	1.0	55.2	44.4
529 UC79083	4160 (12)	36	4.0	4.3	1.8	1.8	56.8	44.6
584 NK BB-82-2	4810 (9)	35	1.5	2.5	2.3	1.8	55.0	45.5
603 UC80206	4900 (7)	31	3.3	3.0	1.3	2.3	54.5	38.7
618 Gustoe	5420 (2)	31	1.8	2.0	3.8	1.0	58.1	41.5
674 UC81041	4700 (10)	33	5.5	4.8	1.5	1.3	53.4	39.4
703 Flesta	4860 (8)	31	3.3	3.8	2.5	2.0	57.1	49.0
705 NK BB 85	5180 (4)	33	2.3	3.0	2.5	1.5	54.1	42.2
711 UC80074-1	4140 (13)	32	3.8	3.5	2.0	1.5	52.7	40.8
727 Barcott	3530 (18)	28	3.5	5.3	1.5	2.0	52.3	38.7
728 BFP 8175	3510 (19)	30	5.0	6.3	3.0	2.3	56.3	40.4
729 NK XBB-86-1	5050 (5)	32	2.0	3.5	2.8	1.5	54.0	42.7
730 NK XBB-86-2	4970 (6)	31	2.0	3.3	2.5	1.8	54.9	43.5
731 NK XBB-86-3	5350 (3)	33	1.5	2.5	1.3	2.0	55.6	45.5
Mean	4470	32	3.4	4.1	2.4	1.6	54.9	43.5
CV	10.4	6.0	26.8	20.4	26.4	30.9	1.1	3.0
LSD (.05)	660	3	1.3	1.2	0.9	0.7	1.3	2.7

Rating scale for diseases (area of flag-1 leaf affected) and lodging: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: BYDV, leaf rust, and scald.

Numbers in parentheses indicate relative rank in column.

Table 8. 1986 Yolo Dryland Barley Test

Entry	Yield (lb/a)	Plant height (in)	Lodging at harvest	Net blotch	Scald	Test weight (lb/bu)	Thousand kernel weight (grams)
2 Briggs	4200 (17)	38	1.3	3.3	1.0	53.3	46.8
190 UC 566	3970 (18)	37	2.0	1.0	3.8	52.8	48.7
191 CM 72	4240 (16)	35	3.0	1.0	5.8	51.2	44.7
316 Prato	3860 (19)	36	1.0	4.3	1.0	52.2	39.8
337 UC 337	5790 (2)	38	1.0	1.0	1.3	54.1	42.7
466 Sunbar BR 401	4390 (14)	32	1.3	1.3	2.5	51.9	46.0
476 UC 476	4780 (9)	34	1.0	2.3	1.3	54.3	41.8
529 UC79083	5470 (4)	40	1.3	1.5	1.3	55.9	49.8
584 NK BB-82-2	4600 (12)	37	1.0	2.5	1.0	51.5	44.0
603 UC80206	4250 (15)	32	1.0	2.0	1.0	51.7	37.5
618 Gustoe	4450 (13)	30	1.3	3.0	1.3	52.7	39.2
674 UC81041	4910 (7)	36	1.0	2.8	1.0	50.5	39.2
703 Fiesta	3780 (20)	31	1.5	2.5	1.8	53.1	43.2
705 NK BB 85	5250 (6)	35	1.0	2.0	1.0	53.0	43.3
711 UC80074-1	4850 (8)	37	1.0	1.5	1.0	53.2	44.8
727 Barcott	4620 (11)	33	1.0	2.3	2.8	51.9	39.8
728 BFP 8175	4720 (10)	33	1.0	2.0	2.8	54.0	47.6
729 NK XBB-86-1	5530 (3)	33	1.0	2.0	1.0	51.8	40.8
730 NK XBB-86-2	5860 (1)	34	1.0	1.5	1.0	52.4	43.7
731 NK XBB-86-3	5430 (5)	35	1.0	1.5	1.0	54.1	46.2
Mean	4750	35	1.2	2.0	1.7	52.8	43.5
CV	12.2	6.2	37.1	23.1	28.0	1.7	3.4
LSD (.05)	820	3	0.6	0.7	0.7	1.9	3.1

Rating scale for diseases (area of flag-1 leaf affected) and lodging: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: BYDV, leaf rust, and Powdery mildew.

Numbers in parentheses indicate relative rank in column.

Table 9. 1986 San Luis Obispo Dryland Barley Test

Entry	Yield (lb/a)	Plant height (in)	Net blotch	Scald	Test weight (lb/bu)	Thousand kernel weight (grams)
2 Briggs	1670 (10)	24	1.3	1.3	52.6	46.1
190 UC 566	1240 (20)	22	1.0	3.0	51.7	43.1
191 CM 72	1710 (8)	20	1.3	3.5	51.8	41.3
316 Prato	1700 (9)	21	2.0	1.8	53.5	42.0
337 UC 337	2090 (2)	25	1.0	1.8	53.8	40.3
466 Sunbar BR 401	1450 (16)	18	1.3	2.3	52.1	43.8
476 UC 476	1930 (4)	24	1.0	2.3	54.7	43.0
529 UC79083	2040 (3)	27	1.0	2.0	55.2	44.7
584 NK BB-82-2	1660 (11)	23	1.8	1.5	51.4	44.4
603 UC80206	1260 (18)	20	1.0	1.8	52.3	39.1
618 Gustoe	1850 (6)	20	1.8	2.0	54.7	42.2
674 UC81041	1870 (5)	23	2.0	1.5	51.3	39.8
703 Fiesta	1260 (19)	18	1.5	2.0	52.1	42.2
705 NK BB 85	1560 (13)	22	1.5	1.5	49.8	39.4
711 UC80074-1	1810 (7)	22	1.0	2.5	52.4	44.7
727 Barcott	1550 (15)	19	1.0	3.0	49.0	35.8
728 BFP 8175	1430 (17)	21	1.0	2.5	51.9	42.4
729 NK XBB-86-1	1560 (14)	19	1.3	1.5	50.5	40.5
730 NK XBB-86-2	2150 (1)	22	1.0	1.8	49.9	40.7
731 NK XBB-86-3	1580 (12)	20	1.0	1.5	50.6	43.8
Mean	1670	21	1.3	2.0	52.1	42.0
CV	22.9	8.9	34.5	42.9	1.2	4.1
LSD (.05)	540	3	0.6	1.2	1.3	3.6

Rating scale for diseases (area of flag-1 leaf affected): 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: BYDV, leaf rust, and Powdery mildew.

Numbers in parentheses indicate relative rank in column.

Table 10. 1986 and 1984-86 Barley Yield Summary (lb/a)

	Sacramento Valley		San Joaquin Valley		Dryland	
	1986 4 Loc	1984-86 9 Loc-yr	1986 3 Loc	1984-86 11 Loc-yr	1986 2 Loc	1984-86 7 Loc-yr
2 Briggs	4240 (17)	4950 (8)	3570 (20)	4480 (8)	2940 (15)	1960 (4)
190 UC 566	3760 (18)	4640 (9)	4750 (11)	4840 (7)	2610 (19)	1960 (5)
191 CM 72	3270 (20)	4050 (10)	4140 (19)	4240 (9)	2980 (14)	2200 (2)
316 Prato	4820 (13)	5600 (5)	4450 (16)	5090 (4)	2780 (17)	2000 (3)
337 UC 337	5870 (7)	5940 (1)	5190 (6)	5590 (1)	3940 (2)	2330 (1)
466 Sunbar BR 401	4680 (15)	5180 (7)	4470 (14)	5010 (6)	2920 (16)	1880 (8)
476 UC 476	4880 (12)	5600 (6)	4710 (12)	5320 (2)	3360 (8)	1940 (7)
529 UC79083	5780 (6)		4920 (8)		3760 (3)	
584 NK BB-82-2	5900 (6)	5670 (3)	5160 (7)	5250 (3)	3130 (11)	1960 (6)
603 UC80206	5510 (9)	5900 (2)	5690 (2)		2760 (18)	1880 (9)
618 Gustoe	4950 (11)	5640 (4)	4910 (9)	5040 (5)	3150 (10)	1780 (10)
674 UC81041	5980 (5)		4770 (10)		3390 (7)	
703 Flesta	4330 (16)		4680 (13)		2520 (20)	
705 NK BB 85	6330 (3)		5700 (1)		3410 (6)	
711 UC80074-1	5220 (10)		4460 (15)		3330 (9)	
727 Barcott	3690 (19)		4430 (17)		3090 (12)	
728 BFP 8175	4720 (14)		4230 (18)		3080 (13)	
729 NK XBB-86-1	6600 (2)		5480 (5)		3550 (4)	
730 NK XBB-86-2	6610 (1)		5540 (4)		4010 (1)	
731 NK XBB-86-3	6100 (4)		5620 (3)		3510 (5)	
Mean	5160		4480		3210	
CV	10.4		10.4		15.3	
LSD (.05)	430		410		490	

Numbers in parentheses indicate relative rank in column.

Table 11. 1986 Butte Common Wheat Test

Entry	Yield (lb/a)	Plant height (in)	Lodging at harvest	Septoria	Test weight (lb/bu)	Yellow- berry	Thousand kernel weight (grams)
20 Anza	6510 (4)	36	2.0	2.0	63.4	8.0	43.8
112 Yecora Rojo	5550 (24)	32	1.3	7.5	64.9	1.0	53.0
221 Phoenix	6010 (13)	34	1.5	4.0	63.8	8.0	45.0
353 Yolo	5990 (14)	35	1.8	1.8	63.3	8.0	39.5
415 Klasic	5260 (30)	33	1.0	2.3	65.8	1.5	52.9
521 Westbred 911	6500 (5)	34	1.0	3.8	63.5	7.0	47.8
538 Probrand 775	5870 (17)	31	1.0	6.8	63.3	7.0	43.0
544 TadInia	7020 (2)	38	1.8	1.0	62.3	8.0	43.2
619 S8330014	5370 (27)	39	3.0	1.5	63.7	5.0	50.8
620 S8330022	5290 (28)	35	2.8	6.3	64.4	3.5	45.5
628 UC 628	6200 (10)	36	1.5	2.8	64.7	4.0	45.7
633 UC 633	6370 (7)	38	2.0	2.8	62.9	8.0	40.7
635 UC 635	5960 (16)	37	2.5	4.8	64.7	6.0	39.5
638 CM 16076	6460 (6)	38	3.8	3.8	63.3	8.0	48.0
662 BH 100	5700 (19)	41	2.3	1.5	62.8	5.5	53.7
664 BH 202	6190 (11)	42	1.3	1.0	62.4	8.0	51.0
666 BH 205	5960 (15)	46	1.0	1.0	61.7	7.5	42.4
671 S8330501	5550 (25)	35	1.3	2.0	63.4	3.0	42.8
672 P982-38	6220 (9)	34	1.0	4.0	63.4	6.5	49.2
680 Calgene 1551	5610 (21)	33	1.0	4.0	63.1	3.5	50.7
681 UC 681	6240 (8)	40	1.0	1.0	63.0	7.0	41.5
682 UC 682	6710 (3)	39	1.0	1.0	63.0	7.5	44.2
683 UC 683	7390 (1)	38	1.0	1.0	63.5	7.5	47.5
684 Veery 'S'	5560 (23)	36	1.0	2.5	63.4	4.0	43.3
702 UC 702	5590 (22)	36	1.5	5.0	64.9	3.0	44.0
703 UC 703	5060 (32)	36	3.0	4.0	65.8	1.0	46.5
705 Serl 82	5850 (18)	35	1.0	4.3	61.9	7.5	44.5
715 P983-102	5620 (20)	38	1.8	1.8	65.5	2.5	38.9
716 P983-69	5290 (29)	33	2.0	5.5	64.9	2.0	51.9
717 P983-13	4630 (33)	36	2.3	8.0	63.2	3.0	46.2
718 NK 83S203	5230 (31)	36	2.0	1.5	63.2	4.5	45.3
719 NK 83S216	5490 (26)	35	1.3	3.0	64.4	7.0	50.8
720 NK 83S609	6020 (12)	38	2.3	1.8	64.2	7.5	42.0
Mean	5890	37	1.7	3.2	63.7	5.5	45.9
CV	8.8	3.6	45.4	46.3	0.5	2.7	3.2
LSD (.05)	720	2	1.1	2.1	0.6	1.4	3.0

Rating scale for diseases (area of flag-1 leaf affected), lodging, and yellowberry: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: BYDV, leaf rust, stripe rust, Powdery mildew, Black point.

Numbers in parentheses indicate relative rank in column.

Table 12. 1986 Sutter Common Wheat Test

Entry	Yield (lb/a)	Plant height (ln)	Lodging on 5/8	Lodging at harvest	Septoria	Test weight (lb/bu)	Yellow- berry	Thousand kernel weight (grams)
20 Anza	5000 (9)	35	1.0	1.5	6.8	64.8	2.0	34.4
112 Yecora Rojo	3140 (30)	30	1.0	3.3	8.0	62.1	1.0	37.7
221 Phoenix	4340 (16)	35	1.0	1.5	7.5	63.4	1.0	33.9
353 Yolo	5210 (6)	36	1.0	1.0	7.0	63.9	3.0	32.3
415 Klasic	3260 (29)	31	1.0	2.5	8.0	62.1	1.0	36.6
521 Westbred 911	5090 (7)	34	1.0	1.8	5.5	63.6	1.0	45.3
538 Probrand 775	2720 (31)	29	1.0	2.3	8.0	55.7	1.0	26.3
544 TadInIta	4910 (10)	40	1.0	1.0	1.0	64.7	4.5	42.3
619 S8330014	4080 (20)	38	1.0	4.0	7.3	63.9	1.0	47.9
620 S8330022	3630 (26)	32	1.0	2.8	8.0	63.8	1.0	39.3
628 UC 628	3440 (28)	33	1.0	2.0	6.8	63.7	1.0	39.7
633 UC 633	4690 (12)	36	1.0	1.5	7.8	63.5	2.0	32.1
635 UC 635	3500 (27)	36	1.0	1.3	8.0	63.5	1.0	30.8
638 CM 16076	4610 (13)	37	1.0	3.8	7.5	64.9	2.0	44.7
662 BH 100	5350 (4)	45	1.0	1.0	5.8	64.0	1.0	46.8
664 BH 202	6630 (1)	45	1.0	1.5	3.5	64.3	5.0	47.5
666 BH 205	6180 (2)	49	1.0	1.0	2.0	63.4	3.5	40.3
671 S8330501	3910 (21)	35	1.0	1.8	7.8	63.3	1.0	38.3
672 P982-38	5050 (8)	33	1.0	2.5	6.0	63.8	1.0	46.3
680 Calgene 1551	3770 (24)	31	1.0	1.8	7.5	61.6	1.0	41.5
681 UC 681	5220 (5)	38	1.0	1.0	1.0	64.2	2.5	40.0
682 UC 682	4760 (11)	38	1.0	1.0	1.0	64.2	2.0	41.3
683 UC 683	5670 (3)	34	1.0	1.8	3.5	64.3	2.0	40.1
684 Veery 'S'	3850 (22)	36	1.0	1.5	8.0	63.3	1.0	37.3
702 UC 702	4230 (19)	37	1.0	2.0	7.5	64.2	1.0	36.8
703 UC 703	3780 (23)	37	1.0	3.3	8.0	65.3	1.0	44.3
705 Ser1 82	3640 (25)	34	1.0	1.5	8.0	62.1	1.0	41.7
715 P983-102	4370 (15)	37	1.0	2.5	7.3	64.9	1.0	34.1
716 P983-69	2680 (32)	30	1.0	5.3	8.0	62.0	1.0	36.6
717 P983-13	1220 (33)	34	2.0	6.8	8.0	57.7	1.0	30.1
718 NK 83S203	4250 (18)	36	1.0	1.0	8.0	61.5	1.0	39.3
719 NK 83S216	4270 (17)	37	1.0	1.3	8.0	64.8	1.0	42.8
720 NK 83S609	4430 (14)	36	1.0	2.0	8.0	64.5	3.0	35.9
Mean	4270	36	1.0	2.1	6.5	63.2	1.6	38.9
CV	6.4	4.3	13.8	33.5	7.9	0.6	3.4	3.1
LSD (.05)	380	2	0.2	1.0	0.7	0.8	1.1	2.5

Rating scale for diseases (area of flag-1 leaf affected), lodging, and yellowberry: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: BYDV, leaf rust, stripe rust, powdery mildew, and Black point.

Numbers in parentheses indicate relative rank in column.

Table 13. 1986 UC Davis Common Wheat Test

	Yield (lb/a)	Plant height (in)	Lodging at harvest	Septoria	Test weight (lb/bu)	Days to heading after 3/1	Days to maturity after 3/1	Black point	Yellow- berry	Thousand kernel weight (grams)
20 Anza	5090 (16)	36	1.5	4.8	62.1	29	83	1.0	1.0	30.1
112 Yecora Rojo	4680 (23)	32	4.5	7.8	61.7	19	76	1.5	1.0	39.7
221 Phoenix	4310 (28)	35	2.0	5.3	59.3	26	81	1.0	1.0	28.0
353 Yolo	5720 (9)	38	1.8	4.8	62.0	27	84	1.0	2.5	30.5
415 Klasic	4470 (27)	33	3.3	8.0	62.7	20	77	1.0	1.0	39.8
521 Westbred 911	5510 (11)	33	2.0	7.3	62.3	33	84	1.0	1.5	40.0
538 Probrand 775	3410 (32)	32	2.5	7.5	54.4	21	75	1.0	1.0	25.1
544 Tadinia	7060 (2)	39	1.5	1.0	64.0	27	82	1.0	5.5	42.5
619 S8330014	4950 (20)	39	6.0	8.0	61.8	24	81	1.5	1.0	45.0
620 S8330022	4590 (25)	35	5.0	7.3	60.7	21	80	1.0	1.5	34.3
628 UC 628	4980 (18)	35	2.3	5.0	63.2	25	82	1.0	1.0	36.7
633 UC 633	5270 (14)	37	1.8	8.0	60.3	25	80	1.0	2.5	28.8
635 UC 635	4170 (31)	38	2.3	7.0	61.0	25	77	1.0	1.0	27.2
638 CM 16076	5610 (10)	40	4.3	7.8	62.0	27	83	1.0	2.0	36.2
662 BH 100	5780 (8)	45	2.3	2.8	63.0	31	83	1.0	2.5	48.5
664 BH 202	7020 (3)	44	2.3	2.3	63.4	33	82	1.0	6.5	47.2
666 BH 205	6220 (6)	51	1.0	1.0	62.2	57	96	1.0	1.5	38.7
671 S8330501	5170 (15)	38	3.0	3.5	62.0	27	81	1.0	1.0	36.8
672 P982-38	5410 (12)	32	2.0	5.0	62.0	31	81	1.0	2.0	40.4
680 Calgene 1551	4530 (26)	34	2.3	5.5	58.7	25	82	2.0	1.0	37.2
681 UC 681	6850 (4)	40	1.3	1.0	63.6	25	75	1.0	2.5	39.8
682 UC 682	6240 (5)	40	1.3	1.0	63.7	25	80	1.0	3.5	41.7
683 UC 683	7110 (1)	37	1.0	1.0	63.0	30	86	1.0	2.0	42.3
684 Veery 'S'	5060 (17)	38	1.8	5.8	62.6	25	80	1.0	1.0	37.6
702 UC 702	4820 (21)	38	3.3	5.8	61.2	26	79	1.0	1.0	34.0
703 UC 703	4310 (29)	37	5.8	6.3	63.4	21	77	1.0	1.0	39.2
705 Serl 82	4610 (24)	36	2.0	7.3	60.6	26	77	1.0	1.0	38.8
715 P983-102	4950 (19)	38	5.0	3.3	62.7	26	81	1.0	1.0	31.5
716 P983-69	4240 (30)	33	3.3	7.8	61.2	20	74	1.0	1.0	37.7
717 P983-13	2560 (33)	37	5.8	8.0	57.2	6	72	1.0	1.5	30.0
718 NK 835203	5810 (7)	36	1.5	3.5	61.2	21	78	1.0	1.0	40.3
719 NK 835216	4780 (22)	37	2.3	7.0	62.2	25	80	1.0	1.5	38.3
720 NK 835609	5340 (13)	39	2.0	5.3	63.7	24	82	1.0	3.0	37.3
Mean	5170	37	2.7	5.2	61.7	26	80	1.1	1.8	37.0
CV	6.5	3.4	27.2	9.7	1.0			16.2	43.6	4.3
LSD (.05)	470	2	1.0	0.7	1.3			0.3	1.6	3.3

Rating scale for diseases (area of flag-1 leaf affected), lodging, and yellowberry: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.
Diseases assessed by occurring in trace or less amounts: BYDV, leaf rust, stripe rust, Powdery mildew.
Numbers in parentheses indicate relative rank in column.

Table 14. 1986 Sacramento-San Joaquin Delta Common Wheat Test

Entry	Yield (lb/a)	Plant height (in)	Septoria	Test weight (lb/bu)	Black point	Yellow- berry	Thousand kernel weight (grams)
20 Anza	3520 (6)	32	4.5	63.7	2.5	1.0	39.8
112 Yecora Rojo	1650 (27)	27	8.0	57.8	1.0	1.0	34.0
221 Phoenix	2540 (15)	30	4.3	63.8	2.0	1.0	38.4
353 Yolo	2640 (14)	32	6.0	63.1	1.0	1.0	30.8
415 Klasic	1740 (24)	27	7.8	58.9	1.0	1.0	36.1
521 Westbred 911	1510 (29)	30	6.0	62.4	3.5	1.0	46.8
538 Probrand 775	1320 (31)	24	8.0	53.2	1.0	1.0	26.5
544 Tadinia	2950 (12)	34	3.0	64.0	1.0	3.0	42.2
619 S8330014	2970 (10)	34	5.0	62.9	2.0	1.0	46.5
620 S8330022	2380 (17)	31	5.8	62.0	1.0	1.0	40.3
628 UC 628	2960 (11)	32	5.3	63.1	2.0	1.0	39.7
633 UC 633	3430 (7)	33	6.3	62.9	1.0	1.0	32.8
635 UC 635	3650 (5)	33	6.3	63.5	1.5	1.0	35.2
638 CM 16076	2300 (18)	32	7.8	63.9	2.5	1.0	43.4
662 BH 100	3340 (8)	38	3.0	62.6	1.0	1.0	47.7
664 BH 202	4470 (2)	41	1.5	62.8	1.0	4.0	46.0
666 BH 205	4360 (3)	39	1.0	63.0	1.0	3.5	45.0
671 S8330501	1230 (32)	26	8.0	61.8	1.5	1.0	32.4
672 P982-38	2240 (19)	30	7.3	61.6	3.0	1.0	45.0
680 Calgene 1551	1340 (30)	26	8.0	58.2	2.5	1.0	38.0
681 UC 681	4700 (1)	37	3.8	63.0	1.0	2.5	42.0
682 UC 682	3870 (4)	35	3.5	62.7	1.0	2.5	41.9
683 UC 683	3160 (9)	30	4.3	63.7	1.0	1.0	40.7
684 Veery 'S'	1640 (28)	27	8.0	61.7	1.0	1.0	34.7
702 UC 702	1880 (22)	29	7.0	63.3	1.0	1.0	39.2
703 UC 703	1990 (20)	31	7.5	62.5	2.5	1.0	39.1
705 Serl 82	1910 (21)	31	6.5	61.1	1.5	1.0	41.8
715 P983-102	1730 (26)	29	7.5	64.2	1.0	1.0	35.8
716 P983-69	1810 (23)	27	7.8	59.1	1.0	1.0	35.7
717 P983-13	780 (33)	30	8.0	56.3	1.0	1.0	30.5
718 NK 83S203	2440 (16)	31	7.8	59.8	1.0	1.0	36.7
719 NK 83S216	1740 (25)	30	7.8	63.8	2.0	1.0	41.5
720 NK 83S609	2660 (13)	32	7.5	62.8	2.0	1.0	34.9
Mean	2510	31	6.0	61.8	1.5	1.3	38.8
CV	19.5	6.7	21.4	1.0	24.7	24.6	4.4
LSD (.05)	1000	3	1.8	1.2	0.8	0.7	3.5

Rating scale for diseases (area of flag-1 leaf affected) and yellowberry: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: BYDV, leaf rust, stripe rust, Powdery mildew.

Numbers in parentheses indicate relative rank in column.

Table 15. 1986 UC West Side Field Station Common Wheat Test

Entry	Yield (lb/a)	Plant height (In)	Lodging at harvest	Shatter	BYDV	Test weight (lb/bu)	Yellow- berry	Thousand kernel weight (grams)
20 Anza	5060 (21)	38	3.0	1.0	1.0	63.1	2.5	37.5
112 Yecora Rojo	5420 (14)	37	4.3	1.0	1.0	63.9	1.0	45.5
221 Phoenix	4990 (24)	40	4.5	1.0	1.0	63.1	6.0	35.7
353 Yolo	5470 (12)	41	4.3	1.0	1.5	63.7	3.0	36.3
415 Klasic	6430 (1)	37	3.0	1.0	1.8	64.1	1.0	45.8
521 Westbred 911	5250 (19)	35	1.3	1.0	2.0	62.8	1.5	46.3
538 Probrand 775	6140 (3)	35	2.0	1.0	1.3	61.6	1.5	36.3
544 Tednita	5250 (20)	43	3.0	1.0	1.5	61.0	2.5	35.1
619 S8330014	4660 (27)	40	4.8	1.0	2.5	61.9	1.5	42.3
620 S8330022	5940 (6)	39	2.5	1.0	1.3	62.2	1.5	39.0
628 UC 628	5350 (16)	39	6.0	1.0	1.0	63.0	1.0	38.0
633 UC 633	5610 (10)	42	4.3	1.0	1.3	62.5	4.5	37.0
635 UC 635	5650 (9)	37	3.8	1.0	1.3	63.7	1.5	36.4
638 CM 16076	5940 (5)	43	5.3	1.0	1.3	62.7	3.5	39.6
662 BH 100	3460 (31)	45	4.8	1.3	1.5	60.6	1.5	40.3
664 BH 202	2130 (32)	43	3.3	2.5	2.5	58.9	2.5	37.0
666 BH 205	1110 (33)	40	2.5	3.8	2.3	58.7	4.5	29.9
671 S8330501	4990 (23)	40	3.8	1.0	2.8	62.1	1.0	39.5
672 P982-38	5470 (13)	35	1.5	1.0	2.0	62.6	3.0	45.3
680 Calgene 1551	5380 (15)	35	2.3	1.3	2.3	59.4	1.0	42.0
681 UC 681	4360 (30)	42	2.5	1.0	2.5	63.1	1.0	36.7
682 UC 682	4390 (29)	43	2.8	1.0	2.3	62.9	4.5	38.5
683 UC 683	5500 (11)	38	1.5	1.0	1.3	62.3	1.5	38.2
684 Veery 'S'	4500 (28)	42	3.5	1.0	3.0	62.4	1.0	38.6
702 UC 702	6330 (2)	40	4.5	1.0	1.0	64.0	1.0	38.3
703 UC 703	4980 (25)	38	3.5	1.0	1.3	64.0	1.0	37.3
705 Ser1 82	5010 (22)	38	1.8	1.0	3.5	61.1	1.0	42.0
715 P983-102	5310 (17)	39	3.3	1.5	1.8	63.3	1.0	34.1
716 P983-69	5300 (18)	36	3.3	1.0	1.8	62.5	1.0	42.6
717 P983-13	4810 (26)	41	3.0	1.0	1.3	62.3	1.0	45.0
718 NK 83S203	5960 (4)	37	3.3	1.0	1.8	61.9	1.0	41.6
719 NK 83S216	5750 (7)	40	3.3	1.0	2.3	63.5	1.5	39.8
720 NK 83S609	5740 (8)	41	2.5	1.0	2.3	62.4	1.5	35.6
Mean	5080	39	3.3	1.2	1.8	62.3	1.9	39.2
CV	10.6	4.3	34.4	35.6	31.8	0.9	53.1	3.0
LSD (.05)	760	2	1.6	0.6	0.8	1.1	2.1	2.4

Rating scale for diseases (area of flag-1 leaf affected), lodging, shatter, and yellowberry:
 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.
 Diseases assessed by occurring in trace or less amounts: leaf rust, stripe rust, Septoria, Powdery mildew.

Numbers in parentheses indicate relative rank in column.
 BYDV ratings (see scale above) were based on percentage of plants showing foliar symptoms.

Table 16. 1986 Kings Common Wheat Test

Entry	Yield (lb/a)	Plant height (in)	Lodging on 4/29	Lodging at harvest	BYDV	Test weight (lb/bu)	Black point	Yellow- berry	Thousand kernel weight (grams)
20 Anza	6060 (27)	39	1.5	5.3	1.0	63.3	1.0	1.0	37.7
112 Yecora Rojo	6980 (8)	33	1.0	5.8	1.3	63.0	2.0	1.0	44.7
221 Phoenix	6120 (26)	37	1.3	4.3	1.3	63.7	1.0	1.0	39.3
353 Yolo	6640 (15)	41	2.5	6.8	1.8	61.9	1.0	1.0	34.9
415 Klasic	7090 (7)	37	1.0	6.5	1.0	63.7	2.0	1.0	44.7
121 Westbred 911	6670 (13)	37	1.0	4.8	1.0	62.5	1.0	1.0	46.5
538 Probrand 775	6720 (12)	34	1.3	4.8	1.5	59.5	1.5	1.0	34.3
544 Tadinla	6670 (14)	41	1.5	6.5	1.0	62.7	1.0	1.0	37.7
619 S8330014	6240 (23)	39	3.8	6.3	1.8	62.0	1.0	1.0	45.9
620 S8330022	6930 (9)	41	1.5	5.8	1.0	62.6	1.0	1.0	40.0
628 UC 628	6050 (28)	38	1.0	6.3	1.3	62.5	1.0	1.0	37.0
633 UC 633	6300 (20)	38	1.8	7.3	1.8	62.1	1.0	1.0	35.3
635 UC 635	6200 (24)	37	1.8	6.8	1.5	62.7	1.0	1.0	34.5
638 CM 16076	6360 (17)	42	6.8	7.8	1.0	62.1	1.5	1.0	41.8
662 BH 100	5440 (31)	46	1.0	5.5	1.0	61.6	1.0	1.0	46.0
664 BH 202	5510 (30)	46	1.3	5.3	1.5	61.9	1.0	1.5	44.7
666 BH 205	3680 (33)	44	1.3	3.8	1.3	60.4	1.0	2.0	36.7
671 S8330501	7510 (2)	41	1.3	5.8	1.5	62.1	1.0	1.0	37.3
672 P982-38	6280 (21)	38	1.3	4.5	1.3	61.0	1.0	1.0	46.4
680 Calgene 1551	5280 (32)	36	4.5	7.0	1.8	57.9	1.0	1.0	39.5
681 UC 681	6040 (29)	42	1.0	5.3	1.5	63.3	1.0	1.0	36.8
682 UC 682	6350 (18)	41	1.0	4.8	1.5	63.7	1.0	1.0	38.0
683 UC 683	7210 (5)	38	1.0	1.5	1.3	62.8	1.0	1.0	40.5
684 Veery 'S'	7610 (1)	41	1.5	5.3	1.0	62.7	1.0	1.0	39.4
702 UC 702	6490 (16)	38	5.3	6.3	1.0	63.6	1.0	1.0	40.3
703 UC 703	6140 (25)	40	5.5	6.8	1.3	64.5	2.0	1.0	42.2
705 Ser 1 82	7230 (4)	39	1.0	3.0	2.5	61.8	1.0	1.0	43.5
715 P983-102	6750 (11)	40	1.8	5.5	1.0	64.0	1.0	1.0	34.7
716 P983-69	7120 (6)	38	1.3	6.3	1.3	62.4	2.0	1.0	43.5
717 P983-13	6240 (22)	39	2.8	6.0	1.0	61.9	3.0	1.0	46.3
718 NK 83S203	6920 (10)	37	1.3	6.0	1.3	61.2	1.0	1.0	41.0
719 NK 83S216	7390 (3)	39	1.3	5.8	1.8	64.1	1.0	1.0	44.7
720 NK 83S609	6300 (19)	41	1.8	6.3	1.5	62.1	1.5	1.0	35.8
Mean	6440	39	1.9	5.6	1.3	62.3	1.2	1.0	40.3
CV	10.4	4.6	40.9	18.5	35.6	0.8	16.8	11.8	2.5
LSD (.05)	940	3	1.1	1.5	0.7	1.0	0.4	0.3	2.1

Rating scale for diseases (area of flag-1 leaf affected), lodging, and yellowberry: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.
 Diseases assessed by occurring in trace or less amounts: leaf rust, stripe rust, Septoria, Powdery mildew.
 Numbers in parentheses Indicate relative rank in column.
 BYDV ratings (see scale above) were based on percentage of plants showing foliar symptoms.

Table 17. 1986 Kern Common Wheat Test

Entry	Yield (lb/a)	Plant height (in)	Lodging at harvest	Shatter	BYDV	P. syringae bacterial blight	Test weight (lb/bu)	Black point	Yellow- berry	Thousand kernel weight (grams)
20 Anza	5240 (14)	34	4.3	1.0	1.0	2.5	63.9	2.5	2.0	38.3
112 Yecora Rojo	4910 (23)	30	5.3	1.0	1.0	6.5	63.6	3.0	1.0	48.9
221 Phoenix	4980 (22)	33	5.0	1.0	1.0	3.0	63.7	2.0	1.5	37.7
353 Yolo	5310 (11)	35	5.5	1.0	1.0	5.0	62.8	1.0	2.5	32.3
415 Klasic	6170 (2)	31	2.8	1.0	1.0	6.8	64.2	2.0	1.0	46.7
521 Westbred 911	5570 (8)	33	1.0	1.0	1.5	3.5	62.0	2.0	1.0	44.9
538 Probrand 775	5210 (17)	27	1.0	1.0	1.3	5.5	61.9	2.0	1.0	35.3
544 Tadinla	4870 (24)	36	6.3	1.0	1.0	4.8	63.7	1.0	5.0	38.9
619 S8330014	4780 (27)	37	6.5	1.3	1.0	3.3	63.3	1.0	1.0	47.5
620 S8330022	4510 (31)	34	4.8	1.0	1.0	2.8	63.5	1.0	1.0	38.8
628 UC 628	5260 (13)	34	6.0	1.0	1.0	2.0	63.4	1.0	1.0	38.9
633 UC 633	5210 (16)	33	5.0	1.0	1.5	5.3	62.5	1.0	1.5	34.6
635 UC 635	4650 (30)	34	4.3	1.0	1.8	3.5	63.9	2.0	1.0	35.0
638 CM 16076	5050 (19)	37	8.0	1.0	1.0	3.3	63.5	1.0	1.0	42.8
662 BH 100	7040 (1)	44	5.3	1.0	1.5	1.8	63.2	1.0	1.5	49.1
664 BH 202	5990 (3)	44	7.0	1.0	1.3	2.0	63.1	1.0	2.5	45.8
666 BH 205	4680 (29)	39	1.8	2.3	1.5	1.5	61.7	1.0	2.5	35.7
671 S8330501	4990 (21)	35	5.8	1.0	1.3	4.5	62.1	1.0	1.0	38.7
672 P982-38	5590 (7)	31	2.0	1.0	1.0	4.0	62.1	2.0	1.0	45.5
680 Calgene 1551	4350 (32)	30	6.0	1.0	1.3	5.5	60.0	1.0	1.0	38.3
681 UC 681	5570 (9)	37	2.5	1.0	1.0	3.3	63.3	1.0	1.5	37.4
682 UC 682	5640 (6)	36	2.3	1.0	1.0	4.3	63.8	1.0	1.0	40.0
683 UC 683	5700 (4)	35	1.0	1.0	1.0	2.3	63.3	1.0	1.0	40.7
684 Veery 'S'	5180 (18)	34	4.3	1.0	1.3	3.8	63.3	1.0	1.0	38.8
702 UC 702	4770 (28)	33	7.0	1.0	1.0	2.8	63.9	1.0	1.0	42.0
703 UC 703	4070 (33)	33	8.0	1.0	1.3	7.3	65.1	2.0	1.0	45.3
705 Ser 1 82	5640 (5)	34	2.5	1.0	1.3	3.5	62.3	1.0	1.0	42.0
715 P983-102	5280 (12)	36	2.5	1.0	1.0	4.0	64.9	1.0	1.0	35.5
716 P983-69	4850 (25)	29	4.8	1.0	1.0	6.8	63.9	2.0	1.0	41.8
717 P983-13	5040 (20)	31	7.3	1.0	1.0	4.3	62.8	4.0	1.0	43.0
718 NK 83S203	4830 (26)	34	6.3	1.0	1.0	4.8	61.9	1.0	1.0	40.5
719 NK 83S216	5220 (15)	34	3.5	1.0	1.3	2.8	64.2	1.5	1.0	42.8
720 NK 83S609	5440 (10)	36	5.5	1.0	1.5	4.8	63.9	2.5	1.0	40.8
Mean	5200	34	4.6	1.0	1.2	4.0	63.2	1.5	1.3	40.7
CV	10.5	4.6	34.1	11.8	35.1	28.0	0.6	22.0	0.4	5.93
LSD (.05)	770	2	2.2	0.2	NS	1.6	0.7	0.7	0.8	4.9

Rating scale for diseases (area of flag-1 leaf affected), lodging, shatter, and yellowberry: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.
Diseases assessed by occurring in trace or less amounts: leaf rust, stripe rust, Septoria, Powdery mildew.
Numbers in parentheses indicate relative rank in column.
BYDV ratings (see scale above) were based on percentage of plants showing foliar symptoms.

Table 18. 1986 Yolo Dryland Common Wheat Test

Entry	Yield (lb/a)	Plant height (in)	Septoria	Test weight (lb/bu)	Yellow- berry	Thousand kernel weight (grams)
20 Anza	5010 (12)	35	1.0	64.2	7.0	37.8
112 Yecora Rojo	4860 (17)	32	4.0	64.8	4.0	47.0
221 Phoenix	4930 (14)	35	2.0	63.3	5.5	35.8
353 Yolo	4380 (28)	35	1.5	63.1	8.0	35.9
415 Klasic	4500 (24)	32	3.0	65.6	4.5	48.3
521 Westbred 911	4370 (29)	33	2.5	64.4	5.0	46.6
538 Progrand 775	4800 (18)	30	5.5	62.8	7.0	38.0
544 Tadinla	5720 (1)	40	1.0	62.9	8.0	41.3
619 S8330014	5010 (13)	40	2.0	62.8	2.5	43.3
620 S8330022	4180 (32)	36	2.3	62.9	5.5	42.1
628 UC 628	4750 (20)	36	2.5	64.9	4.0	40.5
633 UC 633	5110 (10)	35	2.3	63.1	7.5	34.8
635 UC 635	4310 (31)	36	3.0	63.3	7.5	36.7
638 CM 16076	5360 (3)	39	1.8	63.6	7.5	45.3
662 BH 100	4590 (23)	41	1.0	63.2	3.5	48.7
664 BH 202	4920 (15)	42	1.0	62.5	6.0	45.2
666 BH 205	3890 (33)	38	1.0	62.3	4.5	36.7
671 S8330501	4710 (21)	37	1.5	63.5	5.0	38.8
672 P982-38	5130 (9)	33	3.3	63.9	5.0	48.1
680 Calgene 1551	5190 (6)	32	2.8	62.5	2.5	45.7
681 UC 681	4500 (25)	38	2.5	63.7	5.5	40.0
682 UC 682	4620 (22)	38	1.5	63.2	7.5	42.0
683 UC 683	5630 (2)	37	1.3	63.6	3.5	42.1
684 Veery 'S'	5160 (7)	39	2.5	63.9	4.0	41.0
702 UC 702	4900 (16)	38	2.8	64.5	2.5	41.0
703 UC 703	4350 (30)	38	2.5	65.8	2.0	42.8
705 Serl 82	5250 (5)	38	3.3	61.9	4.0	42.3
715 P983-102	4460 (26)	38	2.5	64.9	3.5	35.3
716 P983-69	5160 (8)	34	4.0	65.1	3.0	46.5
717 P983-13	4420 (27)	39	6.8	63.8	4.0	47.4
718 NK 83S203	5270 (4)	36	3.3	62.0	3.0	41.8
719 NK 83S216	5040 (11)	36	3.5	64.1	5.5	42.8
720 NK 83S609	4790 (19)	38	2.8	64.0	7.0	39.2
Mean	4830	37	2.5	63.6	5.0	41.8
CV	11.2	4.1	30.8	0.6	20.2	3.8
LSD (.05)	760	2	1.1	0.8	2.1	3.2

Rating scale for diseases (area of flag-1 leaf affected) and yellowberry: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: BYDV, leaf rust, stripe rust, Powdery mildew, Black point.

Numbers in parentheses indicate relative rank in column.

Table 19. 1986 San Luis Obispo Dryland Common Wheat Test

Entry	Yield (lb/a)	Plant height (in)	Test weight (lb/bu)	Yellow- berry	Thousand kernel weight (grams)
20 Anza	2110 (5)	29	64.0	1.5	40.2
112 Yecora Rojo	1330 (31)	23	64.1	1.5	42.8
221 Phoenix	2350 (1)	30	64.5	1.5	42.4
353 Yolo	1580 (22)	27	63.5	4.5	35.2
415 Klasic	1250 (32)	25	63.9	1.0	41.3
521 Westbred 911	1790 (17)	28	62.7	1.5	44.3
538 Probrand 775	2180 (3)	21	62.7	2.5	37.3
544 Tadinia	2100 (6)	29	63.2	5.0	39.7
619 S8330014	1960 (8)	33	62.4	1.0	44.6
620 S8330022	1550 (27)	29	63.8	2.5	40.9
628 UC 628	1700 (20)	28	63.8	1.0	41.1
633 UC 633	1840 (13)	28	63.4	4.0	37.2
635 UC 635	1570 (25)	27	63.7	2.5	35.5
638 CM 16076	1800 (16)	30	64.3	2.5	43.8
662 BH 100	1570 (23)	32	61.8	2.0	45.3
664 BH 202	1590 (21)	34	62.0	2.0	42.3
666 BH 205	1910 (9)	33	61.9	3.0	36.5
671 S8330501	1990 (7)	26	62.2	1.5	38.3
672 P982-38	1700 (19)	26	62.8	2.0	43.0
680 Calgene 1551	1370 (30)	23	62.2	1.5	42.5
681 UC 681	2130 (4)	31	63.0	3.5	39.3
682 UC 682	1560 (26)	30	62.5	3.0	38.2
683 UC 683	2280 (2)	28	63.3	2.0	42.8
684 Veery 'S'	1500 (28)	27	62.4	1.5	38.3
702 UC 702	1490 (29)	27	64.4	2.0	40.5
703 UC 703	1840 (12)	26	64.4	1.5	39.3
705 Serl 82	1910 (10)	27	61.6	1.5	41.3
715 P983-102	1800 (14)	26	64.2	1.5	35.0
716 P983-69	1570 (24)	24	64.2	1.0	42.3
717 P983-13	1100 (33)	27	62.6	2.0	40.3
718 NK 83S203	1800 (15)	29	62.6	1.5	40.7
719 NK 83S216	1720 (18)	29	64.6	2.5	41.3
720 NK 83S609	1850 (11)	29	63.7	2.5	38.4
Mean	1750	28	63.2	2.1	40.4
CV	28.8	7.1	0.8	4.7	4.02
LSD (.05)	NS	3	1.0	1.1	3.3

Rating scale for yellowberry: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%;
4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: BYDV, leaf rust,
stripe rust, Septoria, Powdery mildew, Black point.

Numbers in parentheses indicate relative rank in column.

Table 20. 1986 and 1984-86 Common Wheat Yield Summary (lb/a)

	Sacramento Valley		San Joaquin Valley		Dryland	
	1986	1984-86	1986	1984-86	1986	1984-86
	4 Loc	12 Loc-yr	3 Loc	11 Loc-yr	2 Loc	7 Loc-yr
20 Anza	5030 (8)	6010 (5)	5450 (24)	6150 (9)	3560 (6)	2320 (5)
112 Yecora Rojo	3760 (29)	5320 (14)	5770 (16)	5930 (13)	3100 (23)	2180 (9)
221 Phoenix	4300 (19)	5860 (7)	5360 (26)	6240 (6)	3640 (3)	2240 (7)
353 Yolo	4890 (10)	6430 (1)	5810 (11)	6570 (2)	2980 (28)	2170 (10)
415 Klaslc	3680 (30)	5800 (8)	6560 (1)	6680 (1)	2880 (31)	2120 (13)
521 Westbred 911	4650 (13)	5890 (6)	5830 (8)	6050 (10)	3080 (27)	1900 (14)
538 Probrand 775	3330 (32)	5640 (11)	6020 (4)	6440 (4)	3490 (8)	2330 (4)
544 Tadinla	5490 (5)	6070 (4)	5600 (20)	5960 (12)	3910 (2)	2360 (2)
619 S8330014	4340 (17)	5510 (12)	5230 (29)	5780 (14)	3490 (9)	2160 (11)
620 S8330022	3970 (25)	5480 (13)	5790 (12)	6030 (11)	2870 (32)	2160 (12)
628 UC 628	4400 (16)	5690 (10)	5550 (21)	6180 (8)	3230 (20)	2220 (8)
633 UC 633	4940 (9)	6480 (2)	5710 (19)	6570 (3)	3480 (10)	2340 (3)
635 UC 635	4320 (18)	5740 (9)	5500 (22)	6410 (5)	2940 (29)	2280 (6)
638 CM 16076	4750 (11)	6170 (3)	5780 (13)	6190 (7)	3580 (4)	2460 (1)
662 BH 100	5040 (7)		5310 (28)		3080 (26)	
664 BH 202	6080 (1)		4540 (32)		3260 (19)	
666 BH 205	5680 (4)		3160 (33)		2900 (30)	
671 S8330501	3970 (26)		5830 (9)		3350 (14)	
672 P982-38	4730 (12)		5780 (14)		3420 (11)	
680 Calgene 1551	3810 (27)		5000 (31)		3280 (18)	
681 UC 681	5750 (3)		5320 (27)		3320 (17)	
682 UC 682	5400 (6)		5460 (23)		3090 (25)	
683 UC 683	5830 (2)		6140 (2)		3960 (1)	
684 Veery 'S'	4030 (23)		5760 (17)		3330 (15)	
702 UC 702	4130 (21)		5860 (7)		3200 (21)	
703 UC 703	3790 (28)		5060 (30)		3100 (24)	
705 Serl 82	4000 (24)		5960 (5)		3580 (5)	
715 P983-102	4170 (20)		5780 (15)		3130 (22)	
716 P983-69	3510 (31)		5760 (18)		3370 (13)	
717 P983-13	2300 (33)		5360 (25)		2760 (23)	
718 NK 83S203	4430 (15)		5900 (6)		3540 (7)	
719 NK 83S216	4070 (22)		6120 (3)		3380 (12)	
720 NK 83S609	4610 (14)		5830 (10)		3320 (16)	
Mean	5110		5570		3290	
CV	7.6		10.6		15.9	
LSD (.05)	310		470		520	

Numbers in parentheses indicate relative rank in column.

Table 21. 1986 Common Wheat Tests, Grain Protein % (12% moisture basis)

Entry	Sutter	UC Davis	Kings	Mean
20 Anza	8.76	9.74	11.18	9.89
112 Yecora Rojo	11.39	11.35	13.86	12.20
221 Phoenix	9.86	9.86	10.89	10.20
353 Yolo	9.62	8.55	13.20	10.46
415 Klasic	11.37	10.43	13.47	11.76
521 Westbred 911	11.18	9.73	12.64	11.18
538 Probrand 775	12.45	10.91	12.40	11.92
544 TadInia	11.99	10.38	12.20	11.52
619 S8330014	9.51	11.22	13.68	11.47
620 S8330022	11.64	11.17	12.58	11.80
628 UC 628	11.18	9.55	11.14	10.62
633 UC 633	9.72	10.77	11.39	10.63
635 UC 635	11.39	10.03	12.80	11.41
638 CM 16076	10.93	10.01	12.52	11.15
662 BH 100	11.33	9.64	11.75	10.91
664 BH 202	10.73	9.49	10.56	10.26
666 BH 205	12.14	11.15	12.41	11.90
671 S8330501	10.23	10.02	12.15	10.80
672 P982-38	10.93	9.45	13.44	11.27
680 Calgene 1551	12.86	10.57	11.04	11.49
681 UC 681	11.79	9.96	11.88	11.21
682 UC 682	11.69	10.74	11.11	11.18
683 UC 683	9.90	9.72	11.83	10.48
684 Veery 'S'	12.45	10.29	11.26	11.33
702 UC 702	11.28	14.06	15.07	13.47
703 UC 703	11.81	12.08	13.58	12.49
705 Serl 82	10.61	10.04	12.04	10.90
715 P983-102	11.92	11.29	13.94	12.38
716 P983-69	11.60	11.67	13.97	12.41
717 P983-13	12.70	12.15	13.97	12.94
718 NK 83S203	9.95	10.21	14.07	11.41
719 NK 83S216	10.13	10.60	12.70	11.14
720 NK 83S609	9.87	9.70	11.08	10.22
Mean	11.06	10.50	12.48	11.35

Table 22. 1985 Common Wheat Tests, Quality Evaluations*

Entry	Variety	Flour				Mixograph		Baking			
		YLD	ASH	MSC	PRO	ABS	TY	ABS	MT	LVOL	BC
<u>Butte, 1985</u>											
20	Anza	70.5	.36	87.4	7.7						
112	Yecora Rojo	69.6	.38	85.3	8.8						
221	Phoenix	70.9	.36	87.7	7.3						
243	Probred	69.0	.36	85.5	8.3						
353	Yolo	72.0	.34	89.6	7.0						
415	Klasic	70.4	.35	87.8	8.5						
521	Westbred 911	65.7	.37	81.8	7.5						
536	NK 2437	67.9	.37	83.7	7.9						
538	Probrand 775	70.3	.37	86.6	6.8						
544	TadInla	71.0	.33	89.4	7.1						
619	IPRI 8314	71.1	.35	88.2	8.7						
620	IPRI 8322	67.0	.36	83.7	8.1						
623	903-1	67.4	.34	84.9	8.2						
624	WRE 80-34	68.1	.34	85.6	8.0						
627	UC 627	69.5	.33	87.6	8.2						
628	UC 628	68.6	.38	84.2	7.9						
629	UC 629	70.4	.36	87.2	7.5						
630	UC 630	69.7	.35	87.1	7.9						
631	CM 43367	66.9	.37	83.0	8.6						
632	LRR Anza	68.6	.35	85.9	7.2						
633	UC 633	72.4	.35	89.5	7.2						
634	UC 634	67.9	.39	83.1	7.6						
635	UC 635	69.5	.39	84.8	8.2						
636	UC 636	70.1	.39	85.3	8.3						
637	UC 637	69.3	.34	86.8	8.0						
638	CM 16076	72.5	.37	88.6	7.5						
671	IPRI 83501	65.7	.38	81.1	8.4						
672	P982-38	65.1	.39	80.1	7.2						
673	P982-83	65.2	.37	81.0	7.5						
678	MP-302	70.5	.36	87.0	8.6						
679	MP-325	71.1	.34	88.7	9.5						
680	Calgene 1551	67.2	.42	80.5	8.2						
681	UC 681	68.7	.33	86.9	8.6						
682	UC 682	69.3	.33	87.5	8.7						
683	UC 683	63.1	.39	77.9	6.2						
684	Veery 'S'	66.8	.39	81.8	8.6						
<u>Sutter, 1985</u>											
20	Anza	67.6	.34	85.1	6.7						
112	Yecora Rojo	68.6	.37	84.8	8.7						
221	Phoenix	70.3	.35	87.6	7.2						
243	Probred	67.6	.36	84.3	8.5						
353	Yolo	71.7	.34	89.4	7.2						
415	Klasic	69.2	.35	86.5	8.0						
521	Westbred 911	65.3	.39	80.2	6.2						
536	NK 2437	66.8	.37	82.7	7.9						
538	Probrand 775	69.3	.37	85.2	6.6						
544	TadInla	70.5	.31	89.8	6.6						
619	IPRI 8314	67.6	.35	84.7	7.8						

Table 22. Common Wheat (Cont'd)

Entry	Variety	Flour				Mixograph		Baking			
		YLD	ASH	MSC	PRO	ABS	TY	ABS	MT	LVOL	BC
<u>Sutter, 1985 (Cont'd)</u>											
620	IPRI 8322	65.4	.36	82.1	7.3						
623	903-1	63.8	.35	80.9	7.0						
624	WRE 80-34	66.0	.34	83.3	7.4						
627	UC 627	67.1	.35	84.3	8.0						
628	UC 628	67.9	.36	84.6	7.8						
629	UC 629	69.5	.36	85.9	7.0						
630	UC 630	69.9	.33	88.0	7.8						
631	CM 43367	65.7	.36	82.2	8.1						
632	LRR Anza	67.7	.36	84.1	6.8						
633	UC 633	69.8	.40	84.5	5.9						
634	UC 634	63.7	.39	78.8	7.2						
635	UC 635	67.5	.38	83.1	8.1						
636	UC 636	67.8	.36	84.2	8.5						
637	UC 637	67.6	.38	83.3	6.9						
638	CM 16076	69.3	.35	86.2	6.6						
671	IPRI 83501	63.7	.41	77.3	7.0						
672	P982-38	63.0	.39	77.9	6.1						
673	P982-83	64.0	.39	78.9	6.1						
678	MP-302	68.9	.36	85.5	9.3						
679	MP-325	69.1	.36	85.8	8.6						
680	Calgene 1551	63.6	.41	77.5	7.0						
681	UC 681	66.7	.33	84.6	7.4						
682	UC 682	66.4	.33	84.3	7.3						
683	UC 683	62.2	.38	77.4	5.8						
684	Veery 'S'	62.7	.41	76.6	7.4						
<u>Kings, 1985</u>											
20	Anza	70.7	.35	88.0	9.5	58.7	2M	60.4	1.8	726	9
112	Yecora Rojo	69.8	.37	86.1	11.5	63.8	6H	65.5	5.1	787	2
221	Phoenix	70.0	.35	87.0	9.7	61.6	4M	62.3	2.3	889	8
243	Probred	69.6	.37	86.0	11.1	61.8	5H	63.5	4.1	792	2
353	Yolo	72.1	.36	88.7	9.4	61.1	2M	61.3	1.3	872	8
415	Klasic	72.3	.37	88.3	11.1	63.8	6H	65.5	5.6	862	2
521	Westbred 911	67.2	.37	83.3	10.4	63.6	5H	66.3	4.2	785	8
536	NK 2437	69.0	.38	84.5	11.2	63.3	6H	65.0	5.1	811	2
538	Probrand 775	71.7	.41	86.1	10.0	65.4	5H	67.1	4.5	875	4
544	Tadina	70.4	.36	87.1	9.4	61.5	4L	62.2	1.1	817	8
619	IPRI 8314	72.2	.36	89.2	11.2	66.8	6H	68.5	5.5	851	1
620	IPRI 8322	69.6	.34	87.1	10.5	66.0	5H	67.7	4.5	799	3
623	903-1	69.2	.33	87.2	11.8	62.9	5H	65.1	3.2	713	6
624	WRE 80-34	69.3	.33	87.5	10.6	64.3	4H	65.5	2.8	828	3
627	UC 627	72.2	.32	91.1	11.1	62.4	3M	63.1	2.2	842	3
628	UC 628	70.9	.40	85.5	9.9	62.5	4M	64.2	2.8	906	2
629	UC 629	72.0	.34	89.6	10.2	61.5	3M	62.2	2.5	848	5
630	UC 630	71.5	.32	90.2	10.5	62.9	4M	63.1	2.3	869	2
631	CM 43367	68.2	.35	85.1	10.5	58.5	2M	60.2	1.8	694	9
632	LRR Anza	70.7	.35	88.1	9.5	60.8	2M	61.5	1.5	731	9
633	UC 633	73.6	.37	89.7	9.2	59.1	2M	58.8	1.3	785	9
634	UC 634	69.5	.37	85.4	9.8	61.5	4M	62.2	2.3	807	8
635	UC 635	73.1	.39	88.3	10.6	61.1	3M	61.3	2.3	863	3

Table 22. Common Wheat (cont'd)

Entry	Variety	Flour				Mixograph		Baking			
		YLD	ASH	MSC	PRO	ABS	TY	ABS	MT	LVOL	BC
636	UC 636	73.2	.36	90.1	10.7	61.0	3M	61.2	1.4	812	5
637	UC 637	71.4	.35	88.8	11.2	61.7	3M	62.4	2.2	821	6
638	CM 16076	74.0	.39	89.5	10.2	59.2	8M	60.9	5.1	848	2
671	IPRI 83501	69.6	.37	85.9	10.9	59.4	4M	61.1	2.5	754	4
672	P982-38	66.6	.37	82.8	10.4	63.5	8M	66.2	4.1	790	5
673	P982-83	67.4	.35	84.3	10.7	63.8	6H	67.0	4.6	802	5
678	MP-302	71.7	.36	88.4	11.8	65.1	3H	66.8	2.5	878	2
679	MP-325	70.5	.39	85.9	10.4	63.5	4M	64.2	2.5	880	4
680	Calgene 1551	67.1	.41	80.9	10.9	65.1	7H	66.8	5.4	824	3
681	UC 681	68.4	.34	85.8	10.7	63.2	4M	64.9	2.8	812	5
682	UC 682	67.8	.32	86.5	10.4	63.6	6M	64.3	2.6	845	4
683	UC 683	64.5	.41	78.3	8.5	61.2	2M	62.9	1.9	683	9
684	Veery 'S'	68.3	.37	84.3	10.8	60.9	4M	63.6	2.5	765	3

All entries are HRS except Phoenix (HWW), Klasic (HWS), Calgene 1550 (HWS), and CM 43367 (HWS). YLD = percent of flour obtained; ASH = flour ash percent, 14% moisture basis; MSC = milling score; PRO = flour protein, 14% moisture basis; ABS = absorption at 14% moisture corrected to 10% protein; TY = mixograph type; MT = optimum mixing time in minutes; LVOL = bread loaf volume (cc) corrected to 10% protein. BC = bread crumb grain rating: 1 = excellent; 2 = satisfactory; 4 = questionable/satisfactory; 6 = questionable; 8 = questionable/unsatisfactory; 9 = unsatisfactory.

*See Agronomy Progress Report No. 168 for yield data. Quality analyses were performed by the Western Wheat Quality Laboratory, USDA, Pullman, WA.

Table 23. 1985 Common Wheat Tests, Quality Evaluation *

Entry	Variety	Wheat		Flour			Far Inograph			Bakers Bread		Family Bread				
		PRO	MO	TM	YLD	ASH	PRO	ABS	ARR	PEAK	STA	MTI	LYOL	DC		
<u>San Joaquin Delta, 1985</u>																
20	Anza	12.1	9.6	64.1	70.9	.388	10.8	67.4	1.0	2.0	2.5	120	2500	W	2650	M
112	Yecora Rojo	13.1	9.1	64.5	71.3	.419	11.3	67.0	2.0	6.0	9.0	30	2850	M	-	-
221	Phoenix	12.0	9.3	64.4	70.5	.430	10.7	66.0	1.5	3.0	4.5	80	2600	M	2700	M
243	Probred	12.5	9.3	64.0	64.7	.420	11.3	65.7	2.0	5.0	7.5	50	2600	M	2800	M
353	Yolo	11.7	8.8	64.6	69.5	.397	10.2	62.6	1.0	3.0	3.5	100	-	-	2700	M
415	Klasic	12.4	9.0	64.9	66.2	.412	11.3	62.6	1.5	6.0	11.5	20	2850	M	2500	M
521	Westbred 911	12.4	9.1	64.3	65.9	.404	10.8	69.1	1.0	5.5	8.0	50	2850	M	2330	M
536	NK 2437	13.1	8.9	63.5	72.7	.474	11.3	66.1	2.0	5.5	7.5	45	2650	W	-	-
538	Probrand 775	12.5	8.9	62.1	65.8	.470	10.5	65.7	2.0	5.0	9.0	30	2700	M	2600	M
544	Tadinta	12.8	8.9	64.5	66.9	.382	11.4	66.9	1.5	2.5	3.0	110	2600	W	-	-
619	IPRI 8314	13.4	8.8	63.4	69.2	.387	11.9	68.5	3.5	5.5	7.5	20	2850	M	-	-
620	IPRI 8322	13.6	8.9	63.3	67.2	.434	11.8	68.9	2.5	5.5	8.0	40	2950	M	-	-
623	903-1	12.4	9.6	64.7	67.3	.376	11.6	72.3	1.5	6.0	8.0	60	2800	M	2550	M
624	WRE 80-34	13.7	9.3	62.6	67.9	.454	12.4	70.2	2.5	4.0	6.0	50	2950	M	-	-
627	UC 627	13.2	9.3	64.9	68.3	.402	12.0	69.3	2.0	3.0	3.0	100	3000	M	-	-
628	UC 628	12.8	9.2	64.1	69.3	.410	10.3	69.6	2.5	3.5	4.0	65	2600	W	-	-
629	UC 629	11.8	9.1	64.7	72.3	.420	10.6	68.7	2.0	4.0	4.5	80	-	-	2600	M
630	UC 630	12.5	9.2	65.6	61.4	.435	10.3	69.5	2.0	3.5	4.0	90	2700	M	2800	M
631	CM 43367	13.3	9.1	64.3	71.3	.439	11.9	71.3	2.0	3.0	2.5	110	2950	W	-	-
632	LRR Anza	11.8	9.5	63.9	71.7	.393	10.2	66.7	1.5	2.5	2.5	120	-	-	2600	M
633	UC 633	10.9	9.0	63.7	74.4	.368	10.1	64.0	1.0	2.5	4.0	90	-	-	2750	M
634	UC 634	12.8	8.9	65.4	60.9	.440	10.8	68.4	2.0	4.0	4.5	70	2600	W	-	-
635	UC 635	12.8	9.0	64.4	66.7	.419	10.9	64.9	2.0	4.0	4.5	70	2850	M	-	-
636	UC 636	13.4	8.6	64.1	67.7	.380	12.0	65.0	2.0	4.0	4.5	80	2950	M	-	-
637	UC 637	14.0	9.0	64.8	67.4	.437	12.2	70.2	2.0	3.5	3.5	80	2650	M	-	-
638	CM 16076	11.4	9.1	63.6	75.1	.389	9.9	59.5	0.5	6.0	10.5	30	-	-	2200	B
671	IPRI 83501	13.8	9.0	63.5	66.0	.495	12.7	70.1	3.0	5.0	4.5	80	2800	M	-	-
672	P982-38	12.4	8.7	63.7	67.4	.424	10.9	70.2	1.0	3.0	8.5	25	2700	M	2600	M
673	P982-83	12.3	8.7	64.1	69.2	.397	10.8	69.1	2.0	5.0	7.0	50	2700	M	2450	M
678	MP-302	13.6	9.0	63.7	68.2	.522	12.4	66.7	2.0	3.5	5.5	60	2900	M	-	-
679	MP-325	13.3	8.9	63.4	70.3	.458	11.8	70.6	2.0	4.5	6.0	70	3000	M	-	-
680	Calgene 1551	13.4	8.4	62.7	65.5	.450	12.0	68.0	1.5	6.5	12.0	20	2950	M	-	-
681	UC 681	13.4	8.4	64.3	73.8	.359	11.8	63.5	2.0	4.0	4.5	80	2950	M	-	-
682	UC 682	13.0	8.5	64.4	75.1	.379	11.3	70.5	2.0	4.0	4.0	90	2750	M	-	-
683	UC 683	12.4	8.5	63.5	63.5	.491	10.5	68.9	2.0	3.0	2.0	120	2700	W	2650	M
684	Veery 'S'	12.9	8.6	64.1	68.9	.445	11.3	69.8	1.5	5.0	6.0	70	2700	M	-	-

Table 23. (cont'd)

Entry	Var.lety	Wheat		Flour			Farinograph			Bakers Bread		Family Bread				
		PRO	MO	TW	YLD	ASH	PRO	ABS	ARR	PEAK	STA	MTI	LVOL	DC		
UC.Davis, 1985																
20	Anza	13.1	8.7	63.1	68.1	.366	10.2	65.0	1.0	2.0	3.0	120	2100	W	2550	W
112	Yecora Rojo	14.6	8.9	63.0	68.1	.363	12.2	65.0	1.5	6.5	9.5	50	2900	S	-	-
221	Phoenix	13.5	8.9	62.9	67.7	.426	10.6	65.2	2.0	3.5	3.5	100	2575	W	2500	W
243	Probred	15.0	8.9	62.5	66.8	.398	11.8	66.3	2.5	6.5	8.0	40	2925	S	-	-
353	Yolo	12.7	8.8	63.2	70.9	.368	10.9	64.1	2.0	3.5	3.0	100	2850	M	2550	W
415	Klasic	14.1	9.0	64.4	70.2	.340	11.7	61.8	2.0	6.0	9.0	40	2925	S	-	-
521	Westbred 911	13.7	9.0	62.1	65.4	.421	11.4	67.7	2.0	5.0	6.5	70	2700	M	-	-
536	NK 2437	14.7	8.6	62.6	67.7	.400	12.6	65.4	2.0	6.5	9.5	40	3000	S	-	-
538	Probrand 775	13.5	9.0	60.0	67.8	.406	11.5	65.8	1.5	5.0	7.5	50	3000	S	-	-
544	TadInla	13.1	8.8	61.3	66.6	.405	11.3	64.0	1.5	3.0	3.0	100	2450	W	2600	M
619	IPRI 8314	14.0	8.6	61.6	68.0	.393	12.3	66.5	3.0	6.5	6.5	80	3100	S	2675	B
620	IPRI 8322	13.6	9.3	61.9	65.5	.408	11.8	66.8	2.0	4.5	5.5	80	2950	W	2450	M
623	903-1	15.1	8.6	63.0	65.1	.425	12.3	71.0	2.0	3.5	4.0	100	2550	W	2575	M
624	WRE 80-34	14.1	8.4	61.1	65.0	.425	11.6	67.9	2.5	3.5	4.5	65	2900	M	-	-
627	UC 627	13.9	8.6	62.9	67.4	.371	12.1	68.3	2.5	3.5	2.0	100	2725	W	2750	M
628	UC 628	13.2	8.6	63.5	68.9	.425	11.0	67.2	2.5	4.0	3.0	80	2725	W	2600	M
629	UC 629	12.9	8.4	63.8	69.2	.415	10.4	66.9	1.5	3.5	4.0	90	2450	VW	2550	M
630	UC 630	13.1	8.4	64.5	67.8	.400	10.8	68.0	2.5	4.0	3.0	90	2600	W	2575	M
631	CM 43367	13.4	8.5	63.6	66.9	.425	11.2	68.6	2.0	2.5	1.5	110	1700	VW	2600	M
632	LRR Anza	12.6	8.6	63.1	67.7	.390	10.2	68.2	1.5	2.5	2.0	110	2200	VW	2675	M
633	UC 633	12.6	8.5	63.7	68.6	.438	10.0	65.5	2.0	2.5	1.5	100	2450	VW	2600	M
634	UC 634	13.1	8.6	64.6	66.1	.476	10.6	68.6	2.0	4.0	3.0	100	2550	VW	2150	VW
635	UC 635	13.7	8.9	63.6	69.3	.435	11.6	65.8	2.0	3.5	3.0	100	2650	VW	2500	M
636	UC 636	13.4	9.1	63.6	65.6	.405	11.2	65.6	2.0	3.0	2.0	110	2650	VW	2600	M
637	UC 637	13.4	8.1	64.6	66.6	.358	12.0	66.7	2.0	3.0	2.0	140	2525	VW	2450	M
638	CM 16076	12.6	8.8	62.7	68.3	.353	11.1	61.7	2.0	7.5	9.0	50	3000	S	2475	S
671	IPRI 83501	13.5	8.5	63.4	64.2	.463	11.1	70.8	2.0	4.5	5.5	70	2900	M	2600	M
672	P982-38	13.3	8.5	61.7	66.4	.426	11.1	67.6	2.0	4.5	4.0	90	2650	W	2650	M
673	P982-83	13.7	8.4	62.0	63.8	.463	11.1	70.5	2.5	5.5	6.0	50	2900	S	2650	S
678	MP-302	14.3	8.5	62.5	68.5	.463	12.0	68.3	2.5	4.5	4.5	70	2950	S	2700	S
679	MP-325	15.1	8.5	62.6	68.0	.450	12.6	69.7	3.5	5.0	3.0	80	3000	M	2600	M
680	Calgene 1551	14.4	8.0	59.9	65.7	.543	12.0	67.8	3.0	7.5	9.5	40	2900	B	2500	B
681	UC 681	14.0	7.9	62.2	64.3	.453	11.6	67.9	2.0	3.5	4.0	70	2500	W	2450	W
682	UC 682	14.6	8.6	62.5	65.3	.451	11.7	67.9	2.5	4.5	3.5	100	2600	W	2650	W
683	UC 683	13.6	8.3	61.7	62.2	.506	11.2	69.7	1.5	3.0	3.0	100	2572	W	2650	W
684	Veery 'S'	14.2	8.6	63.0	66.0	.470	11.7	69.0	2.0	4.0	3.0	120	2400	W	2650	W

PRO = Protein percentage (as is for wheat, 14% moisture basis for flour); MO = percent moisture; TW = test weight (lb/bu); YLD = flour extraction percentage; ASH = flour ash at 62% extraction; ABS = absorption percent, 14% moisture basis; ARR = arrival (minutes); PEAK = peak (minutes); STA = stability (minutes); MTI = mixing tolerance index; LVOL = loaf volume (cc); DC = dough character; B = bucky; S = strong; M = mellow; W = weak; VW = very weak.

*See Agronomy Progress Report No. 168 for yield data. Quality analyses were performed by General Mills, Inc., Vallejo(UC Davis samples) and Los Angeles (San Joaquin samples).

Table 24. 1986 UC Davis Durum Wheat Test

	Yield (lb/a)	Plant height (In)	Lodging at harvest	Septoria	Test weight (lb/bu)	Days to heading after 3/1	Days to maturity after 3/1	Black point	Yellow- berry	Thousand kernel weight (grams)
112 Yecora Rojo	4750 (26)	33	3.5	7.8	62.8	19	75	1.0	1.0	43.4
169 Mexicali	6090 (15)	41	2.8	1.0	63.1	23	79	1.5	3.5	62.8
254 Modoc	5200 (23)	37	1.0	1.8	65.2	25	79	1.5	2.5	53.7
410 Aldura	6290 (11)	34	1.0	1.8	64.4	27	82	2.0	2.0	55.5
496 Yavaros	6720 (6)	40	2.0	1.0	66.1	29	81	1.0	3.5	61.2
499 Rokei 'S'	6470 (10)	37	1.5	2.3	63.8	24	82	1.5	2.5	60.5
522 Westbred 881	5030 (25)	38	1.5	3.5	62.3	23	82	2.0	1.0	62.2
606 Frigate 'S'	6930 (5)	38	1.5	1.0	65.3	28	79	1.0	5.0	58.0
640 UC 640	4330 (27)	39	1.3	3.3	63.3	27	82	1.0	1.0	64.4
642 Gediz 1	6590 (8)	41	1.5	1.0	65.5	29	83	2.0	1.0	56.7
646 Stifftail 3	5710 (20)	43	3.8	1.0	64.4	25	80	1.5	3.0	64.7
647 Stifftail 4	7180 (3)	41	1.3	1.0	65.5	34	84	1.0	5.0	62.8
674 Westbred Turbo	6700 (7)	43	1.8	1.0	63.9	41	87	1.0	3.5	61.0
675 P883-2	5560 (21)	37	1.8	3.8	63.9	19	75	1.5	1.5	58.5
676 P883-15	6030 (17)	43	1.0	1.0	62.6	40	84	1.0	2.0	60.2
685 L-0162	6280 (12)	40	4.5	1.0	64.8	26	80	2.0	1.5	59.8
686 CD 25126	7270 (2)	36	1.0	1.0	65.2	35	86	1.0	5.0	51.3
706 Maha 'S'	7010 (4)	39	1.3	1.0	65.3	28	82	1.0	2.5	58.6
707 UC 707	5730 (19)	32	3.3	1.0	63.9	29	82	1.5	1.0	48.8
708 UC 708	6560 (9)	38	1.8	1.0	64.3	26	78	1.0	1.5	55.0
709 UC 709	5910 (18)	38	1.0	1.0	64.5	27	82	1.0	1.5	53.0
710 UC 710	5190 (24)	36	1.0	1.0	63.9	24	79	1.5	1.5	47.7
711 UC 711	6040 (16)	35	1.0	1.0	64.2	25	78	1.0	2.5	54.6
712 UC 712	5400 (22)	40	1.3	1.5	63.4	25	79	1.5	2.5	66.8
713 UC 713	6280 (13)	38	1.3	2.8	64.8	24	79	2.0	2.0	58.2
714 Altar 84	7920 (1)	40	2.8	1.0	66.2	28	84	1.0	2.0	53.8
721 P884-32	6250 (14)	36	1.0	1.8	64.6	26	82	1.0	2.5	54.7
Mean	6130	38	1.8	1.7	64.4	27	81	1.3	2.4	57.3
CV	7.7	3.2	29.8	19.6	0.3			34.0	45.5	2.2
LSD (.05)	660	2	0.7	0.5	0.4			NS	2.2	2.6

Rating scale for diseases (area of flag-1 leaf affected), lodging, and yellowberry: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: BYDV, leaf rust, stripe rust, Powdery mildew. Numbers in parentheses indicate relative rank in column.

Table 25. 1986 Sacramento-San Joaquin Delta Durum Wheat Test

Entry	Yield (lb/a)	Plant height (in)	Septoria	Test weight (lb/bu)	Black point	Yellow- berry	Thousand kernel weight (grams)
112 Yecora Rojo (HR)	1600 (12)	25	7.5	59.3	1.5	1.0	35.8
169 Mexicali	1310 (17)	31	1.0	61.2	3.5	2.0	52.0
254 Modoc	1410 (16)	25	3.3	63.2	2.5	1.0	41.8
410 Aldura	1310 (18)	25	1.3	62.4	2.5	3.5	46.3
496 Yavaros	1950 (6)	29	1.5	64.8	2.5	1.0	49.7
499 Rokel 'S'	1590 (13)	27	1.0	61.5	3.0	2.5	53.7
522 Westbred 881	1220 (20)	27	2.3	61.0	3.5	1.5	50.2
606 Frigate 'S'	1650 (11)	26	2.5	63.8	2.5	1.0	51.0
640 UC 640	1680 (9)	27	4.5	61.9	2.0	1.0	49.6
642 Gediz 1	2000 (4)	30	3.5	63.8	4.0	1.0	46.7
646 Stifftail 3	1270 (19)	33	1.0	63.3	3.0	1.0	57.5
647 Stifftail 4	2570 (1)	33	2.5	63.8	2.0	1.0	56.3
674 Westbred Turbo	2220 (2)	32	1.8	63.0	2.5	1.0	59.3
675 P883-2	910 (26)	25	4.5	62.9	2.5	1.5	45.5
676 P883-15	1750 (7)	31	1.0	62.2	2.0	1.0	56.3
685 L-0162	1670 (10)	30	1.0	62.9	3.0	1.0	51.8
686 CD 25126	2110 (3)	26	1.3	64.7	2.5	1.0	42.5
706 Waha 'S'	1750 (8)	28	2.8	63.3	2.5	1.0	48.2
707 UC 707	1160 (22)	22	8.0	61.6	2.0	1.0	38.8
708 UC 708	1190 (21)	24	6.3	63.2	3.0	1.0	44.3
709 UC 709	1010 (25)	27	2.0	61.4	3.0	1.0	38.1
710 UC 710	1460 (14)	26	2.3	62.1	2.5	1.0	40.3
711 UC 711	1070 (23)	22	2.5	61.5	2.0	1.5	42.4
712 UC 712	1020 (24)	26	1.5	60.7	5.5	1.0	56.8
713 UC 713	860 (27)	25	5.5	62.5	4.0	1.5	45.8
714 Altar 84	1950 (5)	31	1.8	65.3	2.0	1.5	46.8
721 P884-32	1430 (15)	24	5.0	62.7	3.0	2.0	45.5
Mean	1520	27	2.9	62.6	2.8	1.3	47.9
CV	22.7	6.3	72.2	0.7	25.0	57.8	2.6
LSD (.05)	710	3	3.0	1.0	1.4	NS	2.6

Rating scale for diseases (area of flag-1 leaf affected) and yellowberry: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: BYDV, leaf rust, stripe rust, Powdery mildew.

Numbers in parentheses indicate relative rank in column.

Table 26. 1986 Kings Durum Wheat Test

Entry	Yield (lb/a)	Plant height (In)	Lodging on 4/29	Lodging at harvest	BYDV	Test weight (lb/bu)	Black point	Thousand kernel weight (grams)
112 Yecora Rojo (HR)	6790 (5)	33	1.5	7.3	1.0	61.7	1.5	44.2
169 Mexicali	6610 (9)	40	4.8	7.8	1.3	61.4	1.5	49.2
254 Modoc	6030 (21)	38	3.8	7.0	1.0	63.7	1.0	45.8
410 Aldura	6360 (15)	38	2.3	6.5	1.0	62.5	2.0	46.8
496 Yavaros	6540 (10)	38	1.8	8.0	1.0	63.7	1.5	50.3
499 Rokei 'S'	6230 (18)	36	2.0	7.5	1.5	61.3	1.5	43.5
522 Westbred 881	6650 (8)	39	1.3	7.0	1.0	62.0	1.5	55.0
606 Frigate 'S'	6250 (17)	39	4.0	7.8	1.0	62.2	1.0	44.7
640 UC 640	5140 (27)	42	4.0	7.5	1.0	61.2	1.0	51.7
642 Gediz 1	6420 (14)	39	1.3	7.3	1.3	63.2	1.0	48.8
646 Stifftail 3	5510 (25)	42	6.0	7.5	1.0	62.3	1.5	55.2
647 Stifftail 4	5250 (26)	41	4.0	7.3	1.3	62.6	1.5	54.4
674 Westbred Turbo	6180 (19)	45	1.8	6.5	1.0	62.7	1.0	50.8
675 P883-2	5680 (23)	38	4.3	6.8	1.3	62.0	1.0	49.8
676 P883-15	6530 (11)	41	1.0	5.8	1.0	60.9	1.0	54.5
685 L-0162	5600 (24)	41	4.5	8.0	1.0	62.4	1.5	47.5
686 CD 25126	6100 (20)	38	2.8	6.0	3.0	64.1	1.0	45.2
706 Maha 'S'	6720 (7)	38	5.0	7.8	1.3	62.7	1.5	48.6
707 UC 707	6900 (4)	36	1.0	7.3	1.3	62.6	1.5	46.5
708 UC 708	5820 (22)	36	5.5	7.8	1.5	61.3	1.5	42.3
709 UC 709	6330 (16)	41	3.3	7.5	1.3	61.8	1.0	39.1
710 UC 710	6770 (6)	38	1.5	7.3	1.0	62.9	1.0	42.8
711 UC 711	6940 (3)	37	1.8	7.3	1.0	62.7	1.0	43.7
712 UC 712	6490 (13)	37	1.3	8.0	1.3	61.2	1.0	49.8
713 UC 713	6490 (12)	37	3.5	6.5	1.0	62.8	1.0	46.0
714 Altar 84	7190 (1)	41	3.0	7.8	1.0	64.2	1.0	45.7
721 P884-32	7070 (2)	36	1.8	7.0	1.0	62.0	1.0	43.2
Mean	6320	39	2.9	7.2	1.2	62.4	1.2	47.6
CV	9.9	5.1	41.0	10.8	29.4	0.7	37.0	3.1
LSD (.05)	880	3	1.7	1.1	0.5	0.9	NS	3.0

Rating scale for diseases (area of flag-1 leaf affected) and lodging: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: leaf rust, stripe rust, Septoria, Powdery mildew.

Numbers in parentheses indicate relative rank in column.

BYDV ratings (see scale above) were based on percentage of plants showing foliar symptoms.

Table 27. 1986 Imperial Durum Wheat Test

	Yield (lb/a)	Days to heading	Days to maturity	Plant height (in)	Lodging on 4/29	Lodging at harvest	Shatter	BYDV	Test weight (lb/bu)	Black point	Yellow- berry
112 Yecora RoJo(HR)	7370 (26)	83	129	31	1.0	1.0	1.3	1.0	63.8	1.5	1.0
169 Mexcall	8120 (13)	80	132	37	4.8	6.5	1.3	1.0	63.3	1.5	1.0
254 Modoc	7720 (22)	83	131	34	1.5	1.8	1.0	1.0	65.3	1.0	1.0
410 Aldura	8320 (9)	89	137	32	1.0	1.0	1.0	1.0	63.8	1.5	1.5
496 Yavaros	9000 (3)	87	136	37	2.5	4.0	1.0	1.0	65.8	1.0	1.0
499 Rokei 'S'	8640 (5)	83	131	35	1.5	4.0	1.0	1.3	64.0	1.0	1.5
522 Westbred 881	7900 (16)	83	135	35	2.3	2.8	1.3	1.0	62.3	2.0	1.0
606 Frigate 'S'	7870 (17)	86	132	36	1.8	1.8	1.0	1.0	64.8	1.0	1.0
640 UC 640	7630 (24)	84	132	38	3.5	4.3	1.0	1.3	63.5	1.0	1.0
642 Gediz 1	8160 (11)	86	136	39	3.5	4.8	1.3	1.0	64.5	1.0	1.0
646 Stiffball 3	8060 (15)	85	136	41	4.8	3.0	1.0	1.0	64.8	1.0	1.0
647 Stiffball 4	7680 (23)	93	140	38	2.8	2.8	1.0	1.0	64.3	1.0	1.0
674 Westbred Turbo	9680 (1)	94	139	40	2.0	2.3	1.0	1.3	64.0	1.0	1.0
675 P883-2	7430 (25)	77	128	35	1.8	2.3	1.3	1.0	63.5	1.0	1.0
676 P883-15	8160 (10)	94	139	37	1.0	1.0	1.0	1.0	62.0	1.0	1.5
685 L-0162	8430 (8)	84	133	40	4.8	6.3	1.0	1.0	64.8	1.0	1.5
686 CD 25126	8820 (4)	94	142	35	1.5	1.8	1.0	2.0	65.3	1.0	1.0
706 Maha 'S'	8150 (12)	86	133	37	1.3	1.8	1.5	1.0	65.0	1.0	1.5
707 UC 707	8090 (14)	86	132	31	2.0	5.0	1.0	1.0	64.0	1.0	1.0
708 UC 708	7250 (27)	85	131	36	6.0	7.8	1.0	1.0	64.0	2.0	1.0
709 UC 709	7740 (21)	87	136	38	1.5	2.8	1.3	1.0	63.8	1.0	1.0
710 UC 710	7770 (20)	83	129	33	1.0	1.0	1.0	1.0	63.5	1.0	1.0
711 UC 711	7780 (19)	84	131	35	1.0	1.3	1.0	1.0	63.8	1.5	1.0
712 UC 712	8640 (6)	84	132	36	1.0	2.3	1.3	1.0	63.8	1.0	1.0
713 UC 713	7820 (18)	85	135	35	6.0	8.0	1.0	1.0	62.0	1.5	1.0
714 Altar 84	8570 (7)	86	137	38	2.5	3.5	1.0	1.3	66.0	1.0	2.0
721 P884-32	9090 (2)	87	134	33	1.0	1.0	1.0	1.0	63.5	1.0	1.5
Mean	8140	86	134	36	2.4	3.2	1.1	1.1	64.0	1.2	1.1
CV	5.2	1.3	1.6	3.8	49.0	44.2	25.4	18.0	0.9	26.5	35.6
LSD (.05)	600	2	3	2	1.7	2.0	NS	0.3	1.2	0.6	NS

Rating scale for diseases (area of flag-1 leaf affected), lodging, shatter, and yellowberry: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.
Diseases assessed by occurring in trace or less amounts: leaf rust, stripe rust, Septoria, Powdery mildew.
Numbers in parentheses indicate relative rank in column.
BYDV ratings (see scale above) were based on percentage of plants showing foliar symptoms.

Table 28. 1986 and 1984-86 Durum Wheat Yield Summary (lb/a)

Entry	1986 4 Loc	1984-86 12 Loc-yr
112 Yecora Rojo (HR)	5130 (24)	6120 (12)
169 Mexicali	5530 (13)	6610 (7)
254 Modoc	5090 (25)	6320 (11)
410 Aldura	5570 (12)	6840 (4)
496 Yavaros	6050 (4)	6730 (6)
499 Rokei 'S'	5730 (8)	7080 (1)
522 Westbred 881	5200 (22)	6390 (10)
606 Frigate 'S'	5680 (9)	7040 (2)
640 UC 640	4700 (27)	6410 (9)
642 Gediz 1	5790 (7)	6800 (5)
646 Stifftail 3	5140 (23)	6530 (8)
647 Stifftail 4	5670 (10)	6950 (3)
674 Westbred Turbo	6200 (2)	
675 P883-2	4900 (26)	
676 P883-15	5620 (11)	
685 L-0162	5500 (14)	
686 CD 25126	6080 (3)	
706 Waha 'S'	5910 (6)	
707 UC 707	5470 (15)	
708 UC 708	5210 (21)	
709 UC 709	5250 (20)	
710 UC 710	5300 (19)	
711 UC 711	5460 (16)	
712 UC 712	5390 (17)	
713 UC 713	5360 (18)	
714 Altar 84	6410 (1)	
721 P884-32	5960 (5)	
Mean	6860	
CV	7.5	
LSD (.05)	410	

Numbers in parentheses indicate relative rank in column.

Table 29. 1986 Durum Wheat Tests, Grain Protein % (12% moisture basis)

Entry	UC Davis	Kings	Imperial	Mean
112 Yecora Rojo (HR)	10.43	13.46	11.89	11.93
169 Mexicali	10.67	12.29	12.14	11.70
254 Modoc	11.33	13.61	12.20	12.38
410 Aldura	9.86	13.01	10.38	11.08
496 Yavaros	9.21	12.35	12.14	11.23
499 Rokel 'S'	10.12	12.20	11.64	11.32
522 Westbred 881	12.14	13.41	13.67	13.07
606 Frigate 'S'	8.81	13.01	13.01	11.61
640 UC 640	12.05	14.27	13.10	13.14
642 Gediz 1	10.02	11.28	11.60	10.97
646 Stifftail 3	9.01	13.67	12.95	11.88
647 Stifftail 4	9.16	13.71	12.90	11.92
674 Westbred Turbo	8.96	11.84	11.99	10.93
675 P883-2	11.13	13.87	13.16	12.72
676 P883-15	9.01	13.31	12.90	11.74
685 L-0162	10.58	13.36	11.54	11.83
686 CD 25126	8.45	12.25	11.48	10.73
706 Waha 'S'	9.77	12.40	12.20	11.46
707 UC 707	10.27	12.35	12.40	11.67
708 UC 708	11.48	13.36	12.95	12.60
709 UC 709	10.12	12.29	12.80	11.74
710 UC 710	10.38	12.35	13.41	12.05
711 UC 711	10.98	11.84	11.64	11.49
712 UC 712	10.17	12.60	13.31	12.03
713 UC 713	10.27	12.25	13.61	12.04
714 Altar 84	8.55	10.78	10.38	9.90
721 P884-32	10.43	11.79	12.20	11.47
Mean	10.12	12.70	12.36	11.73

Table 30. 1986 UC Davis, Kings, and Imperial Durum Wheat Tests, Quality Evaluation

Entry	Variety	WHT PRO	FALL NO	TOT EXT	SEMO EXT	DUS	MX	SPK	SEMO PRO	VI	FIRM	RES
UC Davis, 1986												
169	Mexicali	10.4	400	75.5	57.2	80	7	47	9.2	8.5	4.26	7.7
254	Modoc	11.7	400	80.4	58.2	85	6	43	10.2	9.0	4.97	7.3
410	Aldura	9.8	400	78.6	59.7	90	3	23	8.9	9.5	4.23	7.7
496	Yaveros	9.0	400	76.8	59.5	75	5	33	8.5	8.5	4.21	8.0
499	Rokel 'S'	10.5	400	76.5	60.9	85	5	43	9.8	8.5	4.56	7.4
522	Westbred 881	13.2	400	76.8	59.6	90	8	73	11.4	9.5	5.53	7.6
606	Frigate 'S'	9.4	400	74.1	55.0	85	3	17	8.7	8.5	5.14	8.1
640	UC 640	12.6	400	77.1	57.8	85	3	53	11.4	8.5	4.04	8.2
642	Gediz 1	10.4	400	76.9	59.6	85	4	47	9.2	9.0	4.10	7.8
646	Stifftail 3	9.2	400	76.5	58.8	80	4	33	8.6	8.0	4.28	7.7
647	Stifftail 4	8.9	400	77.2	60.2	75	8	20	8.3	9.5	4.56	8.1
674	Westbred Turbo	9.6	400	76.9	58.3	85	7	37	9.0	8.5	4.41	7.9
675	P 883-2	11.2	400	76.7	58.0	90	8	40	10.6	9.5	4.90	7.5
676	P 883-15	9.7	400	78.5	58.2	90	7	37	9.2	9.0	4.62	7.2
685	L-0162	11.4	400	78.4	60.8	65	3	53	10.1	8.0	4.19	7.2
686	CD 25126	8.4	400	75.3	56.4	90	5	33	8.1	9.5	4.23	7.9
706	Waha 'S'	10.8	400	76.4	59.2	85	4	20	9.8	8.5	4.23	8.2
707	UC 707	11.2	400	76.0	56.1	75	7	40	9.5	7.5	5.27	7.6
708	UC 708	12.3	400	77.1	59.0	75	3	23	10.7	8.0	4.54	7.4
709	UC 709	11.0	400	78.3	59.7	75	6	33	10.0	8.0	4.45	7.2
710	UC 710	11.3	400	75.3	55.6	90	5	63	9.8	9.0	5.27	7.4
711	UC 711	11.8	400	74.9	56.8	95	3	40	10.4	10.0	4.56	7.9
712	UC 712	11.5	400	75.6	56.8	90	7	33	10.4	9.5	5.42	7.6
713	UC 713	11.1	400	76.1	57.1	90	5	53	9.9	8.5	5.70	7.5
714	Altar 84	9.5	400	78.3	60.9	85	6	33	9.0	8.5	4.49	8.1
721	P 884-32	11.5	400	77.2	57.7	90	7	43	10.1	8.5	4.86	7.4
Kings County, 1986												
169	Mexicali	12.6	400	76.7	60.8	90	7	50	11.0	9.0	5.23	6.8
254	Modoc	13.6	400	74.4	56.7	90	7	47	11.4	9.5	5.42	6.3
410	Aldura	13.5	400	78.0	60.5	100	5	40	11.7	10.0	5.25	6.8
496	Yaveros	12.7	400	77.2	60.7	85	5	47	10.8	8.5	5.79	6.9
499	Rokel 'S'	12.6	400	76.3	59.4	95	6	50	11.2	9.5	4.92	6.2
522	Westbred 881	13.6	400	75.3	58.7	95	8	37	12.1	9.5	6.35	7.2
606	Frigate 'S'	13.8	400	77.6	60.2	90	4	20	11.8	9.5	4.47	6.9
640	UC 640	14.6	400	77.7	60.3	95	3	37	12.7	9.0	5.12	6.4
642	Gediz 1	12.5	400	76.4	59.1	90	5	43	10.6	9.5	4.51	6.9
646	Stifftail 3	14.1	400	76.5	58.5	90	5	43	12.0	8.5	5.38	6.1
647	Stifftail 4	14.0	400	76.8	60.5	80	8	50	12.2	8.5	5.63	6.3
674	Westbred Turbo	12.8	400	76.4	59.3	90	7	37	11.1	9.0	5.51	6.4
675	P 883-2	14.7	400	77.6	58.7	95	8	43	12.7	9.5	6.39	5.9
676	P 883-15	14.3	400	78.3	60.2	90	7	57	12.6	9.5	6.26	6.0
685	L-0162	13.7	400	78.5	62.1	70	3	57	12.0	8.0	4.86	6.1
686	CD 25126	13.0	400	77.0	59.1	100	8	47	11.2	9.5	6.09	5.7

Table 30. (cont'd)

Entry	Var/Vety	WHT PRO	FALL NO	TOT EXT	SEMO EXT	DUS	MX	SPK	SEMO PRO	VI	FIRM	RES
Kings County (cont'd)												
706	Waha 'S'	12.9	400	77.2	60.2	90	6	27	11.3	9.5	4.95	6.6
707	UC 707	13.0	400	77.0	59.4	75	7	27	11.2	8.5	5.81	6.3
708	UC 708	13.7	400	77.6	60.3	85	3	60	11.9	9.5	4.43	6.0
709	UC 709	13.2	400	78.1	59.7	90	6	90	11.5	9.5	5.55	5.8
710	UC 710	13.3	400	76.7	58.8	95	6	53	11.9	9.5	6.22	6.4
711	UC 711	13.0	400	76.4	59.2	110	3	30	11.5	10.0	5.08	6.5
712	UC 712	13.6	400	77.4	60.5	100	7	43	11.8	10.0	6.00	6.1
713	UC 713	12.9	400	76.9	59.8	100	6	73	11.3	9.5	5.53	6.0
714	Altar 84	12.0	400	78.6	61.9	85	7	43	10.6	9.5	4.90	7.5
721	P 884-32	13.0	400	78.2	61.0	100	7	40	11.1	10.0	5.77	6.0
Imperial Valley, 1986												
169	Mexicali	12.4	400	78.0	63.0	85	7	47	11.1	8.5	5.31	7.5
254	Modoc	13.2	400	76.2	58.8	85	6	67	11.9	9.0	5.98	7.5
410	Aldura	11.8	400	78.9	61.8	95	4	90	11.1	9.5	4.38	7.3
496	Yavaros	12.4	400	77.5	61.5	80	4	60	10.8	8.5	5.31	7.6
499	Rokel 'S'	11.8	400	77.6	62.4	95	6	77	10.8	8.5	5.12	7.8
522	Westbred 881	14.3	400	76.0	59.7	95	8	30	12.3	10.0	5.94	7.6
606	Frigate 'S'	12.9	400	78.6	61.6	90	4	47	11.9	9.5	4.49	7.2
640	UC 640	13.2	400	77.7	62.3	90	2	47	11.8	9.0	4.43	7.4
642	Gediz 1	12.0	400	78.1	61.4	90	3	93	10.7	9.5	4.17	7.6
646	Stifftail 3	12.4	400	77.7	63.6	85	3	99	10.9	8.0	4.00	7.3
647	Stifftail 4	12.8	400	79.1	64.5	80	7	63	11.4	8.0	5.57	7.5
674	Westbred Turbo	12.2	400	77.7	60.5	85	5	33	10.7	9.0	4.62	7.5
675	P 883-2	13.7	400	77.4	60.5	100	8	53	12.2	10.0	6.57	6.8
676	P 883-15	14.0	400	79.0	62.1	90	8	70	12.7	9.5	5.72	7.2
685	L-0162	12.0	400	78.6	63.0	65	2	67	10.8	8.0	3.89	8.2
686	CD 25126	12.1	400	77.7	61.3	95	7	67	10.9	9.5	5.55	6.9
706	Waha 'S'	12.7	400	78.4	61.9	90	3	27	11.6	9.5	4.45	6.9
707	UC 707	12.8	400	77.0	60.2	75	6	30	11.9	8.0	4.77	7.0
708	UC 708	13.7	400	76.7	59.9	85	2	57	11.8	8.5	3.87	6.5
709	UC 709	13.3	400	77.1	59.9	85	4	60	11.9	9.5	4.47	7.1
710	UC 710	13.1	400	74.1	58.0	95	3	99	11.8	9.5	5.25	7.2
711	UC 711	12.6	400	76.0	59.1	105	2	80	10.6	10.0	4.23	7.6
712	UC 712	13.2	400	77.3	61.1	100	6	60	11.7	9.5	5.31	6.7
713	UC 713	13.0	400	76.7	60.4	95	5	63	11.5	9.5	5.42	6.4
714	Altar 84	11.2	400	76.9	61.8	85	4	40	10.4	9.0	4.77	7.2
721	P 884-32	12.5	400	77.7	61.4	95	6	53	11.1	9.5	5.14	7.4

WHT PRO = wheat protein percentage, 14% moisture basis; FALL NO = semolina falling number value (values above 300 are desirable); TOT EXT = total extraction percentage, semolina plus flour; SEMO EXT = semolina extraction percentage; DUS = semolina dust color score (high score desirable); MX = mixograph score (higher score = stronger curve); SPK = semolina speck count; SEMO PRO = semolina protein percentage; VI = spaghetti visual color score (higher score = more desirable); FIRM = cooked spaghetti firmness score (6.50 - 8.50 = desirable); RES = residue in water of cooked spaghetti.

Quality analyses were performed by the Hard Red Spring and Durum Wheat Quality Laboratory, USDA, North Dakota State University, Fargo, North Dakota.

Table 31. 1985 UC Davis Durum Wheat Test, Quality Evaluation*

Entry	Variety	Wheat			Flour			HVAC	Coloration	
		PRO	M	TW	YLD	ASH	PRO		b	Δb
169	Mexicali	13.1	8.5	62.0	66.7	.505	12.1	97	17.39	.04
254	Modoc	13.5	8.2	65.0	63.0	.600	12.6	95	18.05	.70
410	Aldura	13.9	8.7	63.1	65.1	.625	12.6	98	19.24	1.89
422	TL 75-409	13.3	8.6	61.7	65.1	.580	12.5	98	18.63	1.28
496	Yaveros	13.6	8.1	64.6	65.4	.595	11.7	95	18.25	.90
498	Mallard 'S'	12.8	8.8	63.9	62.7	.680	11.5	90	17.66	.31
499	Rokel 'S'	13.6	9.0	62.7	68.4	.565	12.2	97	18.79	1.44
522	Westbred 881	14.8	8.7	61.6	67.3	.570	12.9	95	19.82	2.47
605	D-8204	13.0	9.0	60.6	66.7	.555	11.3	90	18.87	1.52
606	Frigate 'S'	14.4	8.8	64.0	65.5	.621	13.0	97	18.37	1.02
607	D-8209	13.1	9.1	63.5	72.9	.610	11.8	90	19.55	2.20
626	NK 79D893	13.5	9.1	64.6	67.7	.730	12.6	99	21.87	4.52
639	UC 639	13.8	8.5	62.7	62.5	.606	12.0	95	14.80	-2.55
640	UC 640	14.2	8.7	63.2	68.5	.643	12.7	95	18.89	1.54
641	CD 4071	13.9	8.9	64.2	65.8	.620	12.2	97	16.74	-.62
642	Gediz 1	14.6	8.5	63.9	67.0	.571	12.8	95	18.47	1.12
643	CD 14472	14.4	8.6	64.0	64.3	.656	12.3	98	16.64	-.71
644	UC 644	13.2	8.3	63.1	63.1	.581	11.6	98	14.42	-2.92
645	CD 3935	13.9	9.0	63.5	69.2	.575	12.4	98	16.70	-.65
646	Stifftail 3	14.2	9.2	63.5	69.4	.521	12.7	98	17.78	.43
647	Stifftail 4	13.8	8.8	64.2	65.5	.605	12.5	95	17.19	-.16
648	Loon	14.5	8.6	62.9	64.8	.631	13.3	95	14.83	-2.52
649	CD 8130	13.3	8.7	62.9	70.3	.580	11.9	95	13.83	-3.52
674	Westbred Turbo	14.1	8.4	63.7	70.6	.511	12.7	95	19.95	2.60
675	P 883-2	15.0	8.5	63.7	70.6	.578	14.0	97	20.64	3.29
676	P 883-15	15.9	8.6	61.4	64.7	.695	14.8	95	18.81	1.46
677	P 883-22	14.2	8.9	62.2	69.0	.601	13.0	95	20.02	2.67
685	L-0162	14.4	8.5	64.2	66.2	.606	12.4	97	15.26	-2.09
686	CD 25126	13.2	8.6	65.4	62.8	.631	11.7	95	20.91	3.56

PRO = Protein percentage "as is" for wheat, 14% moisture basis for flour; M = moisture percentage; TW = test weight (lb/bu); YLD = flour extraction percentage; ASH = flour ash at 62% extraction, 14% moisture basis; HVAC = percent hard vitreous kernels with amber color; b and Δb = Hunter colorimeter readings.

*See Agronomy Progress Report No. 168 for yield data. Quality Evaluation was performed by General Mills, Inc., Vallejo, California.

Table 32. 1985 Imperial Durum Wheat Test, Quality Evaluation

Entry	Variety	WHT PRO	FALL NO	TOT EXT	SEMO EXT	DUS	MX	SPK	SEMO PRO	VI	FIRM	RES
<u>Imperial Valley, 1985</u>												
169	Mexicali	11.8	400	78.2	64.7	75	8	57	10.6	7.5	5.94	6.3
254	Modoc	13.0	400	77.4	60.8	80	7	70	11.4	7.5	6.83	6.0
410	Aldura	12.8	400	79.5	63.9	90	4	43	11.7	8.0	6.13	6.3
422	TL 75-409	12.7	400	81.0	64.1	90	4	57	11.5	8.5	7.56	6.3
496	Yavaros	13.2	400	77.1	60.3	80	6	23	11.5	8.0	6.67	5.9
498	Mallard 'S'	11.8	400	79.0	65.2	80	8	63	10.6	8.5	7.41	6.5
499	Rokel 'S'	11.1	400	79.1	65.3	85	6	50	10.3	7.5	6.91	5.8
522	Westbred 881	13.6	400	77.5	62.8	85	8	37	12.5	8.5	7.65	6.6
605	D-8204	11.1	400	78.5	65.2	85	7	60	9.7	8.5	5.62	6.5
606	Frigate 'S'	12.8	400	79.3	64.4	85	5	37	11.7	8.5	5.92	6.4
607	D-8209	12.0	400	78.6	63.2	95	4	43	11.0	8.5	5.40	6.0
626	NK 79D893	12.3	400	79.0	63.3	100	4	30	10.9	8.5	6.33	6.7
639	UC 639	11.7	400	77.5	63.3	55	5	99	11.0	4.0	8.04	6.6
640	UC 640	12.3	400	78.1	64.1	80	3	17	11.3	8.5	5.29	5.8
641	CD 4071	12.8	400	79.8	64.8	70	7	47	11.7	6.0	7.80	6.5
642	Gediz 1	12.1	400	77.6	62.9	80	4	47	10.9	8.0	5.81	6.7
643	CD 14472	12.7	400	78.9	64.5	70	3	53	11.5	7.0	6.13	5.7
644	UC 644	12.3	400	78.7	63.8	60	5	37	11.3	6.0	6.72	6.5
645	CD 3935	12.3	400	79.5	65.2	75	7	57	11.2	7.0	8.32	6.2
646	Stifftail 3	12.3	400	79.3	64.1	70	3	40	11.0	7.5	6.87	6.0
647	Stifftail 4	12.6	400	80.2	64.0	70	7	30	11.4	7.5	6.80	5.3
648	Loon	12.6	400	78.9	63.0	60	4	53	11.4	6.0	7.28	6.3
649	CD 8130	12.5	400	78.9	65.3	60	6	47	11.3	5.5	6.52	5.9
674	Westbred Turbo	11.4	400	80.7	65.4	90	5	53	10.1	8.5	6.33	7.3
675	P 883-2	13.2	400	77.5	63.0	95	8	23	11.8	9.5	7.65	6.2
676	P 883-15	13.7	400	78.5	63.0	80	8	53	12.6	8.5	7.71	5.9
677	P 883-22	13.3	400	77.0	61.2	85	8	63	12.4	8.0	9.33	6.3
685	L-0162	12.1	400	79.0	64.5	60	3	50	10.7	6.0	5.27	5.6
686	CD 25126	12.2	400	79.4	64.6	90	7	53	10.8	7.0	6.67	6.5

WHT PRO = wheat protein percentage, 14% moisture basis; FALL NO = semolina falling number value (values above 300 are desirable); TOT EXT = total extraction percentage, semolina plus flour; SEMO EXT = semolina extraction percentage; DUS = semolina dust color score (high score desirable); MX = mixograph score (higher score = stronger curve); SPK = semolina speck count; SEMO PRO = semolina protein percentage; VI = spaghetti visual color score (higher score = more desirable); FIRM = cooked spaghetti firmness score (6.50 - 8.50 = desirable); RES = residue in water of cooked spaghetti.

*See Agronomy Progress Report No. 168 for yield data. Quality analyses were performed by the Hard Red Spring and Durum Wheat Quality Laboratory, USDA, North Dakota State University, Fargo, North Dakota.

Table 33. 1986 Sutter Trifical Test

Entry	Yield (lb/a)	Plant height (in)	Lodging at harvest	BYDV	Septoria	Test weight (lb/bu)	Thousand kernel weight (grams)
1 Siskiyou	6270 (8)	55	1.0	1.3	1.0	56.6	53.2
2 Beagle	6890 (3)	52	1.5	1.3	1.0	55.0	57.4
12 Juan	6850 (4)	51	1.5	1.0	1.0	58.4	62.0
51 UC 51	6230 (9)	44	1.5	1.0	1.0	56.5	54.4
52 UC 52	7370 (1)	47	1.5	1.3	1.0	56.1	54.7
53 UC 53	6670 (5)	48	1.0	1.3	1.0	52.9	49.7
54 CIN-CNO*BGL/ME	6520 (6)	53	1.3	1.3	1.0	60.3	54.2
55 UC 55	6380 (7)	52	1.3	1.0	1.0	57.8	54.5
56 Nutricale S-405	7070 (2)	63	1.0	1.0	1.0	56.3	47.3
57 Nutricale S-205	5740 (11)	53	1.0	1.0	1.0	59.3	65.0
58 Nutricale S-505	6220 (10)	60	1.0	1.3	1.0	59.1	47.4
353 Yolo [Wheat]	5210 (12)	37	1.0	1.0	8.0	63.6	32.2
Mean	6450	51	1.2	1.1	1.6	57.7	52.6
CV	4.9	3.1	32.5	32.5	0.0	0.8	4.5
LSD (.05)	460	2	NS	NS	0.0	1.0	5.2

Rating scale for diseases (area of flag-1 leaf affected) and lodging: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: leaf rust, stripe rust, Powdery mildew.

Numbers in parentheses indicate relative rank in column.

BYDV ratings (see scale above) were based on percentage of plants showing foliar symptoms.

Table 34. 1986 UC Davis Triticale Test

Entry	Yield (lb/a)	Plant height (in)	Lodging at harvest	BYDV	Sepioria	Test weight (lb/bu)	Days to heading after 3/1	Days to maturity after 3/1	Thousand kernel weight (grams)
1 Siskiyou	5040 (12)	54	4.5	1.8	1.0	55.6	32	84	50.3
2 Beagle	6280 (5)	53	2.8	1.8	1.0	54.5	24	80	53.8
12 Juan	6970 (2)	54	2.0	1.3	1.0	58.3	21	79	58.3
51 UC 51	6180 (6)	47	3.0	1.3	1.0	54.3	30	84	50.7
52 UC 52	6390 (3)	49	2.3	1.3	1.0	55.6	30	84	52.9
53 UC 53	6160 (7)	53	1.3	1.0	1.0	51.7	40	86	47.2
54 CIN-CNO*BGL/ME	6390 (4)	54	1.5	1.3	1.0	59.5	26	79	50.5
55 UC 55	6020 (8)	54	3.8	1.0	1.0	57.1	30	84	49.3
56 Nutricale S-405	5470 (10)	64	1.5	1.0	1.0	55.6	57	97	50.6
57 Nutricale S-205	6980 (1)	52	2.8	1.3	1.0	60.2	21	78	61.9
58 Nutricale S-505	5330 (11)	60	1.3	1.0	1.0	57.5	27	79	49.0
353 Yolo [Wheat]	5820 (9)	39	1.0	1.0	5.0	62.9	27	84	33.3
Mean	6090	53	2.3	1.2	1.3	56.9	30	83	50.7
CV	11.2	3.6	34.6	33.3	17.7	0.6			4.3
LSD (.05)	980	3	1.1	NS	0.3	0.8			4.8

Rating scale for diseases (area of flag-1 leaf affected) and lodging: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: leaf rust, stripe rust, Powdery mildew.

Numbers in parentheses indicate relative rank in column.

BYDV ratings (see scale above) were based on percentage of plants showing foliar symptoms.

Table 35. 1986 Kings Triticale Test

Entry	Yield (lb/a)	Plant height (in)	Lodging at harvest	BYDV	Test weight (lb/bu)	Thousand kernel weight (grams)
1 Siskiyou	4940 (9)	53	6.8	1.8	52.7	40.5
2 Beagle	6390 (3)	58	4.5	2.3	52.5	42.8
12 Juan	6430 (2)	55	4.3	1.8	56.2	48.0
51 UC 51	5400 (6)	50	5.3	1.5	53.2	47.5
52 UC 52	4910 (10)	49	6.3	1.0	52.8	45.7
53 UC 53	5160 (8)	53	3.0	1.0	49.3	41.7
54 CIN-CNO*BGL/ME	7010 (1)	55	6.3	1.5	57.9	43.0
55 UC 55	5280 (7)	55	6.0	1.0	54.8	43.0
56 Nutricale S-405	4810 (11)	60	3.8	1.0	51.3	34.5
57 Nutricale S-205	5820 (5)	57	6.0	1.8	56.6	46.3
58 Nutricale S-505	4210 (12)	62	4.0	1.8	58.2	43.9
353 Yolo [Wheat]	6020 (4)	41	7.5	1.3	60.0	32.7
Mean	5530	54	5.3	1.5	54.6	42.5
CV	12.6	4.6	15.0	37.9	1.7	6.0
LSD (.05)	1000	4	1.1	0.8	2.0	5.6

Rating scale for diseases (area of flag-1 leaf affected) and lodging: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: leaf rust, stripe rust, Septoria, Powdery mildew.

Numbers in parentheses indicate relative rank in column.

BYDV ratings (see scale above) were based on percentage of plants showing foliar symptoms.

Table 36. 1986 Imperial Triticale Test

Entry	Yield (lb/a)	Days to heading	Days to maturity	Plant height (in)	Lodging on 4/29	Lodging at harvest	Shatter	Test weight (lb/bu)	Thousand kernel weight (grams)
1 Siskiyou	5980 (9)	90	139	51	1.8	3.0	1.0	54.5	47.5
2 Beagle	6600 (5)	85	136	50	2.0	4.3	1.0	58.5	47.1
12 Juan	8070 (2)	86	139	50	1.3	2.5	1.0	55.8	50.0
51 UC 51	6260 (8)	94	141	39	1.0	4.8	1.0	51.8	46.5
52 UC 52	5390 (10)	96	143	44	1.5	8.0	1.0	50.5	42.1
53 UC 53	5150 (11)	99	145	41	1.0	1.5	1.0	46.0	36.8
54 CIN-CNO*BGL/ME	8130 (1)	86	134	50	2.3	3.0	1.0	59.3	46.3
55 UC 55	6490 (6)	91	141	50	3.0	5.5	1.0	54.0	44.5
56 Nutricale S-405	2720 (12)	116	155	53	1.0	1.0	1.0	46.8	37.6
57 Nutricale S-205	7690 (3)	86	135	54	2.5	3.0	1.3	60.0	56.9
58 Nutricale S-505	6480 (7)	93	138	51	1.3	2.0	1.0	57.3	40.3
353 Yolo [Wheat]	6720 (4)	91	136	38	1.0	2.5	4.5	64.0	38.8
Mean	6310	93	140	47	1.6	3.4	1.3	54.9	44.5
CV	8.7	1.7	1.1	3.0	49.8	56.1	54.4	4.2	3.5
LSD (.05)	790	2	2	2	1.2	2.8	1.0	5.0	3.4

Rating scale for lodging and shatter: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: BYDV, leaf rust, stripe rust, Septoria, Powdery mildew.

Numbers in parentheses indicate relative rank in column.

Table 37. 1986 and 1984-86 Triticale Yield Summary (lb/a)

		1986 4 Loc	1984-86 12 Loc-yr
1	Siskiyou	5560 (10)	4950 (3)
2	Beagle	6540 (4)	6050 (2)
12	Juan	7080 (1)	6870 (1)
51	UC 51	6020 (6)	
52	UC 52	6020 (7)	
53	UC 53	5790 (9)	
54	CIN-CNO*BGL/Merino 'S'	7010 (2)	
55	UC 55	6040 (5)	
56	Nutricale S-405	5020 (12)	
57	Nutricale S-205	6560 (3)	
58	Nutricale S-505	5560 (11)	
353	Yolo [Wheat]	5940 (8)	
Mean		6090	
CV		9.6	
LSD (.05)		410	

Numbers in parentheses indicate relative rank in column.

Table 38. 1986 Triticale Tests, Grain Protein % (12% moisture basis)

Entry	Sutter	UC Davis	Kings	Imperial	Mean
1 Siskiyou	11.28	8.40	12.55	12.50	11.18
2 Beagle	11.18	8.65	11.94	11.28	10.76
12 Juan	10.12	7.64	10.93	11.39	10.02
51 UC 51	10.38	8.20	13.21	11.84	10.91
52 UC 52	10.27	7.80	13.36	11.74	10.79
53 UC 53	11.60	9.06	11.74	13.91	11.58
54 CIN-CNO*BGL/Merino 'S'	10.88	8.20	10.93	11.48	10.37
55 UC 55	11.60	8.70	11.89	11.99	11.04
56 Nutricale S-406	9.46	7.95	12.40	12.14	10.49
57 Nutricale S-205	10.88	7.74	11.33	11.18	10.28
58 Nutricale S-505	12.05	8.25	12.29	12.65	11.31
353 Yolo [Wheat]	9.21	7.64	11.69	11.84	10.10
Mean	10.74	8.19	12.02	12.00	10.74

Table 39. 1986 Triticale Hay Tests

Entry	Tulare			Stanislaus			
	Forage yield (dry wt) lb/a	% heading on 4/16	Lodging on 4/29	BYDV	Forage yield (dry wt) lb/a	Plant height (in)	Harvest stage
1 Siskiyou	19160 (7)	100.0	2.3	4.3	4180 (3)	38	flower
2 Beagle	17030 (12)	100.0	2.5	2.5	3950 (7)	45	flower
12 Juan	19110 (8)	100.0	1.3	2.0	3170 (10)	43	flower
51 UC 51	23030 (2)	100.0	1.0	1.0	3950 (6)	37	flower
52 UC 52	23940 (1)	95.0	1.3	1.5	4150 (4)	46	flower
53 UC 53	19780 (6)	97.5	1.0	1.3	3650 (8)	39	flower
54 CIN-CNO*BGL/ME	20710 (5)	97.5	1.0	1.8	4020 (5)	45	flower
55 UC 55	17510 (11)	100.0	3.8	1.0	4420 (2)	49	flower
56 Nutricale S-405	22870 (3)	3.0	1.3	1.8	6090 (1)	52	flower
57 Nutricale S-205	22620 (4)	97.5	1.0	2.0	3170 (9)	43	flower
58 Nutricale S-505	18940 (9)	95.0	1.0	2.5	2600 (11)	48	flower
353 Yolo [wheat]	17830 (10)	100.0	1.0	1.5	-	-	-
Mean	20210	90.5	1.5	1.9	3940		
CV	14.9	2.2	43.4	36.5	21.8		
LSD (.05)	4310	4.3	0.9	1.0	1315		

Rating scale for diseases (area of flag-1 leaf affected) and lodging: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: leaf rust, stripe rust, Septoria, Powdery mildew.

Numbers in parentheses indicate relative rank in column.

BYDV ratings (see scale above) were based on percentage of plants showing foliar symptoms.

Table 40. 1986 UC Davis Oat Grain Test

Entry	Yield (lb/a)	Plant height (In)	Lodging on 5/9	Lodging at harvest	BYDV	Crown rust	Powdery mildew	Test weight (lb/bu)	Days to heading from 3/1	Days to maturity from 3/1	Thousand kernel weight (grams)
1 Curt	2040 (17)	46	1.0	7.0	2.3	1.0	1.8	33.6	41	78	36.6
2 Sierra	2720 (10)	54	1.0	5.5	1.8	1.8	1.3	34.2	43	79	37.8
3 Montezuma	2520 (11)	52	1.0	6.5	1.3	1.0	1.5	36.4	40	76	36.7
4 Cal Red	1030 (19)	61	1.0	5.5	1.5	1.0	1.5	35.5	69	83	29.0
6 Kanota	2050 (16)	55	1.8	6.5	1.5	2.3	1.0	36.5	43	80	29.5
10 Swan	2920 (9)	61	1.0	4.0	1.3	1.8	1.0	31.2	44	84	35.1
22 Cayuse	2080 (15)	59	1.3	4.8	1.0	1.8	1.0	35.3	77	92	28.5
35 Jaycee	2080 (14)	67	1.0	2.0	1.8	2.0	1.3	39.0	56	84	29.3
64 76E5	2980 (8)	64	1.0	2.3	1.0	1.0	1.0	40.4	52	80	30.8
88 Appaloosa	2150 (13)	66	1.0	2.5	1.8	1.8	1.0	34.4	77	100	27.2
89 MO 06072	1800 (18)	57	1.0	5.5	1.0	1.0	1.0	38.2	60	80	23.1
95 75Q-036-83-1D	4170 (4)	50	1.0	4.0	1.5	1.8	1.0	36.4	58	95	32.8
96 Ogle	3210 (7)	68	1.0	1.8	1.3	1.0	1.0	37.0	62	86	30.6
98 A82-0034	4740 (1)	62	2.0	1.3	1.5	1.8	1.0	39.6	56	84	33.7
100 A83-0043	4320 (3)	48	1.0	2.5	1.0	1.3	1.0	39.4	48	81	36.0
101 A81-0043	4330 (2)	56	1.0	1.8	1.0	1.0	1.8	39.8	55	85	35.2
102 A82-0039	3870 (6)	59	1.0	1.5	1.0	1.3	1.0	38.8	60	87	34.7
103 A82-0058	3890 (5)	64	1.0	1.3	1.0	1.0	1.0	40.1	54	84	34.0
104 Coker 74C17*0T	2310 (12)	64	1.0	1.0	1.5	2.0	1.0	38.8	59	89	26.6
Mean	2910	59	1.1	3.5	1.4	1.4	1.2	37.1	55	85	32.0
CV	20.4	5.2	22.0	33.6	31.8	24.9	26.0	4.6			4.2
LSD (.05)	840	4	0.3	1.7	0.6	0.5	0.4	3.6			2.8

Rating scale for diseases (area of flag-1 leaf affected) and lodging: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: Stem rust.

Numbers in parentheses indicate relative rank in column.

BYDV ratings (see scale above) were based on percentage of plants showing foliar symptoms.

Table 41. 1986 Tulare Oat Grain Test

Entry	Yield (lb/a)	Plant height (in)	Lodging on 4/29	Lodging at harvest	BYDV	Crown rust
1 Curt	2750 (15)	48	3.8	4.3	2.3	1.3
2 Sierra	3350 (6)	54	1.5	3.3	2.3	1.0
3 Montezuma	2800 (14)	56	5.5	5.5	1.0	1.8
4 Cal Red	2090 (18)	59	5.0	5.3	4.0	1.0
6 Kanota	3000 (10)	56	5.8	5.0	1.5	1.0
10 Swan	4480 (1)	62	1.0	2.3	1.3	1.0
22 Cayuse	1900 (19)	68	4.8	6.3	1.3	1.0
35 Jaycee	3280 (7)	61	2.8	4.3	1.5	1.0
64 76E5	4300 (3)	62	2.3	4.0	1.3	1.0
88 Appaloosa	2140 (17)	66	2.5	4.3	1.8	1.0
89 MO 06072	2180 (16)	63	3.5	5.0	1.0	1.0
95 75Q-036-83-1D	4420 (2)	52	1.0	1.0	1.0	1.0
96 Ogle	3030 (9)	62	3.3	5.5	1.0	1.0
98 A82-0034	3860 (4)	58	1.8	4.0	1.3	1.0
100 A83-0043	2930 (12)	53	1.3	4.3	1.5	1.0
101 A81-0043	2970 (11)	57	5.3	4.5	1.3	1.0
102 A82-0039	3270 (8)	62	2.3	2.8	1.5	1.0
103 A82-0058	2920 (13)	56	2.0	4.5	1.5	1.0
104 Coker 74C17*OT	3530 (5)	60	1.5	2.5	1.3	1.0
Mean	3120	59	3.0	4.1	1.5	1.1
CV	27.3	7.8	45.8	39.2	32.0	15.3
LSD (.05)	1200	6	1.9	2.3	0.7	0.2

Rating scale for diseases (area of flag-1 leaf affected) and lodging: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: Powdery mildew, Stem rust.

Numbers in parentheses indicate relative rank in column.

BYDV ratings (see scale above) were based on percentage of plants showing foliar symptoms.

Table 42. 1986 Yolo Dryland Oat Grain Test

Entry	Yield (lb/a)	Plant height (in)	BYDV	Crown rust	Test weight (lb/bu)	Thousand kernel weight (grams)
1 Curt	2850 (17)	38	1.0	1.3	37.8	33.9
2 Sierra	3470 (7)	48	1.0	1.3	37.5	36.3
3 Montezuma	3080 (14)	47	1.0	1.5	39.7	43.1
4 Cal Red	2890 (16)	54	1.5	1.0	38.6	27.7
6 Kanota	1890 (19)	54	1.0	1.0	41.5	31.3
10 Swan	4250 (2)	51	1.0	1.8	41.6	41.3
22 Cayuse	3270 (9)	50	1.0	1.0	33.9	28.1
35 Jaycee	3220 (12)	48	1.0	1.0	40.8	28.0
64 76E5	3270 (10)	50	1.3	1.3	38.8	27.0
88 Appaloosa	3030 (15)	45	1.0	1.0	34.1	27.7
89 MO 06072	3120 (13)	50	1.0	1.0	37.0	19.8
95 75Q-036-83-1D	4300 (1)	41	1.3	1.5	40.2	34.7
96 Ogle	3230 (11)	48	1.0	1.0	35.9	25.5
98 A82-0034	3640 (5)	44	1.0	1.3	38.8	31.8
100 A83-0043	3440 (8)	34	1.0	1.0	38.6	31.9
101 A81-0043	3520 (6)	40	1.0	1.0	39.5	31.2
102 A82-0039	3920 (3)	43	1.0	1.0	36.8	29.1
103 A82-0058	3810 (4)	45	1.0	1.0	40.3	31.9
104 Coker 74C17*OT	2130 (18)	42	1.0	1.0	40.6	30.6
Mean	3280	46	1.1	1.1	38.5	31.1
CV	19.7	8.8	19.1	30.9	3.4	7.9
LSD (.05)	920	6	0.3	0.5	2.8	5.1

Rating scale for diseases (area of flag-1 leaf affected): 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: Powdery mildew, Stem rust.

Numbers in parentheses indicate relative rank in column.

BYDV ratings (see scale above) were based on percentage of plants showing foliar symptoms.

Table 43. 1986 and 1984-86 Oat Grain Yield Summary (lb/a)

Entry	1986 3 Loc	1984-86 8 Loc-yr
1 Curt	2550 (14)	2340 (9)
2 Sierra	3180 (9)	3120 (2)
3 Montezuma	2800 (12)	2880 (4)
4 Cal Red	2000 (19)	1650 (11)
6 Kanota	2310 (18)	2200 (10)
10 Swan	3880 (3)	3220 (1)
22 Cayuse	2420 (16)	2540 (7)
35 Jaycee	2860 (11)	2710 (5)
64 76E5	3520 (8)	2930 (3)
88 Appaloosa	2440 (15)	2550 (6)
89 MO 06072	2370 (17)	2430 (8)
95 75Q-036-83-1D	4300 (1)	
96 Ogle	3160 (10)	
98 A82-0034	4080 (2)	
100 A83-0043	3560 (6)	
101 A81-0043	3610 (5)	
102 A82-0039	3690 (4)	
103 A82-0058	3540 (7)	
104 Coker 74C17*OT	2660 (13)	
Mean	3100	
% C.V.	22.7	
LSD (5%)	570	

Numbers in parentheses indicate relative rank in column.

Table 44. 1986 Oat Hay Tests

Entry	Tulare			Yolo-Dryland			Stanislaus		
	Forage yield (dry wt) lb/a	Plant height (In) 4/29	Lodg. on BYDV	Forage yield (dry wt) lb/a	Height (ft)	Stem coarseness (1-5)	Forage yield (dry wt) lb/a	Plant height (In)	Harvest stage
1 Curt	9700 (18)	53.3	6.0	7000 (20)	2.9	1.2	2800 (18)	29	flower
2 Sierra	11420 (16)	63.5	1.8	8880 (13)	3.9	4.5	2510 (20)	43	flower
3 Montezuma	8400 (20)	65.0	4.3	7280 (19)	3.7	1.8	3360 (17)	36	flower
4 Cal Red	8790 (19)	57.5	6.0	9660 (7)	4.3	1.5	4720 (12)	46	flower
6 Kanota	10720 (17)	61.3	5.0	8380 (16)	4.4	1.8	4100 (16)	41	flower
10 Swan	22570 (8)	62.0	1.5	10720 (1)	4.2	3.2	4480 (14)	48	flower
22 Cayuse	26160 (4)	62.5	2.3	10380 (2)	3.8	3.5	7220 (2)	35	milk
35 Jaycee	23980 (6)	56.0	1.5	10080 (4)	4.2	4.5	5610 (10)	48	milk
64 76E5	21910 (9)	68.8	1.0	9160 (9)	3.8	3.5	6340 (6)	37	milk
88 Appaloosa	26690 (3)	62.5	3.0	9760 (6)	3.8	4.5	7540 (1)	43	milk
95 MO 06072	19830 (11)	65.5	4.3	10160 (3)	3.8	1.5	6420 (5)	45	flower
99 75Q-036-83-1D	20240 (10)	66.5	1.0	8640 (15)	2.9	3.8	5710 (9)	38	milk
96 Ogle	29180 (1)	65.3	2.8	9960 (5)	3.8	3.5	6330 (7)	43	flower
98 A82-0034	26700 (2)	67.5	1.0	8080 (17)	3.3	3.5	5740 (8)	46	flower
99 Falso-184	22880 (7)	67.5	1.8	9160 (10)	3.4	4.0	6480 (4)	47	flower
100 A83-0043	18490 (12)	58.5	1.0	7800 (18)	2.8	3.5	2740 (19)	27	flower
101 A81-0043	14270 (15)	60.3	3.5	8880 (12)	3.2	2.0	4400 (15)	42	flower
102 A82-0039	17620 (14)	69.5	3.8	8720 (14)	3.3	2.8	5160 (11)	42	milk
103 A82-0058	17760 (13)	70.0	2.3	9120 (11)	4.1	2.5	4490 (13)	42	flower
104 Coker 74C17 *	25090 (5)	60.0	1.3	9320 (8)	3.5	3.2	6620 (3)	36	milk
Mean	19120	63.1	2.7	9060			5140		
CV	24.1	12.8	54.9	30.0			15.7		
LSD (.05)	6520	NS	2.1	1740			1260		

Rating scale for diseases (area of flag-1 leaf affected) and lodging: 1 = 0-3%; 2 = 4-14%; 3 = 15-29%; 4 = 30-49%; 5 = 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.

Diseases assessed by occurring in trace or less amounts: Powdery mildew, Stem rust, Crown rust.

Numbers in parentheses indicate relative rank in column.

BYDV ratings (see scale above) were based on percentage of plants showing foliar symptoms.

Stem coarseness: 1 = very fine; 5 = coarse.