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## 1987 REGIONAL BARLEY, COMMON AND DURUM WHEAT, TRITICALE, AND OAT PERFORMANCE TESTS IN CALIFORNIA<sup>1</sup>

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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 1987. 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 (30 entries) were evaluated at 8 locations; common wheats (30 entries), at 8 locations; durum wheats (30 entries), at 4 locations; triticales (21 entries), at 4 locations; and oats (16 entries), at 2 locations.

Tests were conducted on University of California Field Stations or on fields of cooperating growers. Tests to be irrigated were planted at a seeding rate of 1.5 million seeds per acre for wheat (requiring from 96 to 159 lbs/a for common wheat, depending on the cultivar) and 1.25 million seeds per acre for barley (requiring from 98 to 151 lb/a), triticale (requiring from 91-166 lb/acre), and oats (requiring from 63-119 lbs/acre), depending on the cultivar. Dryland tests were planted at a seeding rate of 1.25 million seeds per acre for wheat and 1.0 million seeds per acre for barley and oats. Tests were set-up in randomized complete block designs

<sup>1</sup>These 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; Con-Agra Flour Milling, Omaha, NE; 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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with four replications; each plot was 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. Grain was harvested with a Wintersteiger Seedmaster Universal 150 plot combine. Follar 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. 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, irrigation, rainfall) regarding each site is given in Table 1.

The California Crop and Livestock Reporting Service estimated 1987 harvested winter wheat acreage at 480,000 acres (excluding 57,000 acres of durum wheat), down 20% from 1986. Durum acreage is down 24% from the 75,000 acres harvested in 1986. Harvested barley acreage is estimated at 330,000 acres, down 17% from 1986. Wheat yields were projected to be 7% higher than in 1986, while barley yields were about 15% lower than in 1986. About 46% of California's wheat was grown in the San Joaquin Valley, 30% in the Sacramento Valley, 18% in Southern California (including the Imperial Valley), 4% on the Coast, and 2% in Sierra and Northern California. For wheat other than durum, the most popular cultivars were Yecora Rojo, grown on 47% of California's acreage (71% of the San Joaquin Valley acreage), Anza, grown on 26% (57% of the Sacramento Valley and 11% of the San Joaquin Valley acreage), and Yolo, grown on 16% (40% of the Sacramento Valley and 5% of the San Joaquin Valley acreage). The most popular durum wheat cultivars were Mexicali 75, Westbred 881, Yavaros 79, and Aldura, grown on 31%, 30%, 21% and 18% of the durum acreage, respectively. No acreage survey was conducted for barley in 1987.

The 1987 small grain crop was produced under conditions of lower than normal rainfall amounts and temperature patterns that fluctuated above and below normal during key periods in the growth and development of the crop. Rainfall was about 70% of normal throughout the major grain producing regions, with most occurring from January through March. As a result yields suffered greatly in rainfed production areas. Temperatures during the fall-planting period were slightly warmer than normal, very favorable for early plant growth and establishment if sufficient moisture was present. Unfortunately, most areas received only about 30% of normal fall precipitation, so unless the planted area was preirrigated, or irrigated after planting, establishment was delayed. Temperatures during the winter fluctuated, with some warmer and some colder than normal periods. Temperatures warmed up earlier in the spring than normal, providing good conditions for growth of irrigated grain (and high yields). This warm trend continued through late spring, with maximum temperatures greater than 90°F occurring by mid-April and continuing through mid-May. Such hot temperatures during anthesis and early grain fill probably reduced the yield potential of the crop. Cooler than normal temperatures, however, prevailed during the later stages of grain fill, minimizing the loss.

## BARLEY

Average yields for the 8 barley tests ranged from 690 lb/a (310-1030 lb/a) at San Luis Obispo (rainfed) to 7420 lb/a (4160-7900 lb/a) at Butte (Tables 2-10). Entries NK XBB-86-2, NK XBB-86-4, UC 337, and NK BB-85 were the highest yielding entries in the Sacramento Valley; entries UC 337 and PH 584-9, NKXBB-86-1, in the San Joaquin Valley; and entries UC 566 and CM 72, in the dryland areas. In the three year period, 1985-87, entries NK BB-85 and UC 337 were the highest yielding in the Sacramento Valley; entries UC 337, NKBB-85 and UC 603, in the San Joaquin Valley; and entries UC 337, CM 72, and NKBB-85, in dryland areas.

Diseases generally were only of light to moderate severity in 1987, although some entries were affected by leaf rust at UC Davis and Sutter; by net blotch and scald at UC Davis, and by powdery mildew at Sutter. Entries particularly susceptible to scald included UC 566 and CM 72; to net blotch, Briggs, Prato, and PH 584-9; to leaf rust, 82AB23222, Gustoe, Lewis, and Klages; and to powdery mildew, Gustoe, NKXBB86-2, PH 584-7, and PH 584-11.

Lodging was severe at Sutter, UC Davis, and Kern. Entries with good lodging resistance included UC80206, NKBB-82-2, Bellona, 79AB6871, Fiesta and NK BB-85. Bushel weights and kernel weights were generally high, with Lewis producing consistently high bushel weights; and UC 566, CM 72, and 79AB6871, high kernel weights.

## COMMON WHEAT

Average yields for the eight common wheat tests ranged from 1390 lb/a (1040-1760 lb/a) at Yolo (rainfed) to 7540 lb/a (6480-8730 lb/a) at Butte (Tables 11-19). Entries Seri 82, UC 683, and CM 16076 were the highest yielding in the Sacramento Valley; and S8330501, CM 16076, Klasic, UC 683, and Yolo, in the San Joaquin Valley. In the three year period 1985-87, entries UC 683, Yolo, and CM 16076, were the highest yielding in the Sacramento Valley; Klasic, S8330501, Yolo, and Probrand 775, in the San Joaquin Valley; and UC 683, CM 16076, and Tadinia, in the dryland areas.

Diseases were only of light to moderate severity in 1987, although some entries were damaged by leaf rust in Sutter, the Sacramento-San Joaquin Delta and UC Davis; and by stripe rust and Septoria tritici blotch in the Sacramento-San Joaquin Delta. Entries Tadinia and CM 16076 were particularly susceptible to leaf rust; PH 983-13 and BH 133, to stripe rust; and PH 983-69, Probrand 775, Yecora Rojo, PH 983-13, and PH 982-162R, to Septoria tritici blotch.

Bushel weights and kernel weights generally were high in 1987. Entries with especially high kernel weights included BH 122, Tammy, and PH 983-13. Entries with especially high bushel weights included UC 702, Klasic, and PH 982-163R.

Quality analyses of 1986 nurseries (Tables 20-22) showed low protein content of samples from Butte, medium protein content of samples from Sutter and UC Davis, and high protein content of samples from Kings and Kern.

Among the samples from the nurseries with medium protein levels, entries S8330014, CM 16076, PH 982-102, and PH 982-69 from Sutter, and Klasic and S8330014 from UC Davis, performed the best in bread baking flours. Westbred 911, Probrand 775, CM 16076, BH 205, and PH 983-13 also performed quite well. Among samples from nurseries with higher protein content, entries Yecora Rojo, Klasic, PH 983-69, and PH 983-13 were rated highest from Kern, while CM 16076 and NK 83S203 were given the highest bake ratings from Kings. Twelve other entries were given as good or better bake ratings than Yecora Rojo from the Kings nursery.

Protein percentages and sedimentation (SDS) values were measured on samples from six of the 1987 Common Wheat nurseries (Table 28). Entries with highest average protein levels included Tammy, Yecora Rojo, UC 702, UC 703, PH 983-13, and PH 983-69. Highest sedimentation values were recorded for entries Yecora Rojo, Klasic, PH 983-69, PH 983-13, CM 16076, and UC 702. Quality analyses of samples from the Kings test (Table 30) showed that entries Klasic, CM 16076, and UC 702 had the highest bake scores.

#### DURUM WHEAT

Average yields of the four durum wheat tests (Tables 23-27) ranged from 6580 lb/a (5170-7260 lb/a) at Kings to 8600 lb/a (6570-9720 lb/a) at Imperial. Entries Altar 84, UC 743, UC 742, and PH 884-57 were the highest yielding in 1987, while Westbred Turbo and CD 25126 were the highest yielding in the three-year period 1985-87. Altar 84 has been the highest yielding durum wheat over the past two years (1986-87).

Lodging was severe on several entries at UC Davis and Imperial. Entries particularly susceptible to lodging include UC 708, Mexicali, UC 713, Altar 84, UC 640, and PH 883-2. Although diseases generally were not damaging, powdery mildew and black point affected some entries in the Sacramento-San Joaquin Delta. Entries UC 707 and UC 712 were most affected by powdery mildew, while Aldura, CD 25126, PH 884-32, and UC 739 had the highest black point disease levels.

Bushel weights and kernel weights were high at all locations. Entries Imperial, Westbred Turbo, Westbred 881, and PH 884-57 had particularly high kernel weights, while entries CD 25126, Yavaros, UC 739, and UC 743 had particularly high bushel weights.

Protein percentages and sedimentation values were measured for entries in the 1987 durum wheat tests (Table 29). Entries with the highest average grain protein levels included Imperial, Westbred 881, and UC 741. Entries PH 883-2 and Westbred 881 had the highest sedimentation values. Quality analyses of samples from three of the durum wheat tests were performed by the Hard Red Spring and Durum wheat Quality Laboratory, USDA, Fargo, ND (Table 31). Entries rated high overall from both Kings and Imperial nurseries included Frigate 'S', Waha 'S', Westbred 881, PH 983-2, PH 884-11, and UC 712.

## TRITICALE

Average yields in the four triticale tests ranged from 6040 lb/a (4270-7470 lb/a) at Kings to 6870 lb/a (4720-8330 lb/a) at UC Davis (Tables 32-36). Entries Trical 603 and Juan were the highest yielding in 1987, while Juan and UC 54 were the highest yielding in the three-year period 1985-87. Entry Juan yielded an average of 15% more than the common wheat Yolo at the four locations in 1987.

Average bushel weights of the triticales were lower than those of the wheats, while kernel weights were higher. Entry UC 54 had consistently high bushel weight, while entries Florico, Juan, and Eronga'S' had consistently high kernel weights.

## OATS

Average yields of the two oat grain tests ranged from 760 lb/a (110-1490 lb/a) at Yolo (rainfed) to 3150 lb/a (1030-4570 lb/a) at UC Davis (Tables 37-39). Entries 75Q-036-83-1D and A82-0034 were the highest yielding in 1987, as well as in the three-year period 1985-87. Stem rust was severe on entries Sierra, Kanota, and Swan at UC Davis in 1987.

Forage yield was poor for all entries in the Yolo (rainfed) oat hay test because of severe drought (Table 40). Entries 75Q-036-83-1DD and Swan had the highest hay yields.

Table 1. Site Characteristics for UC Regional Cereal Evaluation Tests, 1987

Location	Test	Planting Date	Soil Type	1986 Crop	Fertilization	Irrigation	Rainfall Seas./After Plant.
Butte County Dutro Ranch Chico	Common wheat Barley	11/17/86	Farwell clay adobe	Sugarbeets	With seed: 40# N (NH <sub>3</sub> SO <sub>4</sub> ) Topdress: 70# N (urea) 22# N (NH <sub>3</sub> SO <sub>4</sub> )	Furrow: 2x (10" total)	22.1"/17.8"
Fresno County UC West Side Field Station, Five Points	Wheat Barley	12/05/86 12/05/86	Panoche clay loam	Sunflowers	Preplant: 150# N (NH <sub>3</sub> SO <sub>4</sub> ) Topdress: 50# N (wheat only)	Flood: 5x (37.3" total)	4.7"/4.4"
Imperial County UC IVAC El Centro	Durum wheat Triticale	12/15/86	Meloland clay loam	Sudan	Preplant: 100# N (urea) 60# P <sub>2</sub> O <sub>5</sub> Topdress: 89# N (urea)	Flood: Sprinkler 1x Flood 4x (26" total)	0.3"/0.2"
Kern County J.G. Boswell T32/R27/Sec11	Wheat	12/05/86	Sacramento clay	Safflower	Preplant: 127# N (NH <sub>3</sub> ) 100# 11-52-0	Border strip: 4x (30" total)	5.0"/4.0"
Kern County Sandrini Farm Houghton and Ashe Rds.	Barley	12/05/86	Cason fine sandy loam	Cotton	Preplant: 50# N (UN32) Topdress: 50# N (UN32) 30# N (NH <sub>4</sub> NO <sub>3</sub> )	Border strip: 1 preplant 3 crop (24" total)	5.0"/4.0"
Kings County J.G. Boswell	Wheat Barley Triticale	12/11/86 12/04/86 12/11/86	Tulare clay	Cotton	Preplant (barley): 150# N (NH <sub>3</sub> ) 150# N 11-48-0 Preplant (wheat): 175# N (NH <sub>3</sub> ) 100# 11-48-0 Topdress (wheat): 34# N (34-0-0) 20# N (82-0-0)	Flood (wheat): 4x (24" total) Flood (barley): 2x (12" total)	Wheat: 7.6"/6.4" Barley: 7.6"/6.6"

Table 1. Site Characteristics (cont'd)

Location	Test	Planting Date	Soil Type	1986 Crop	Fertilization	Irrigation	Rainfall Seas./After Plant.
Sacramento County Lewallen Tyler Island	Wheat	12/02/86	Egbert muck	Fallow	Preplant: With seed: 80# 11-48-0 Topdress: 50# urea	Spud ditch 1 x (6" total)	9"/5"
San Luis Obispo White Ranch Shandon	Barley	12/05/86	Arbuckle- San Ysidro sandy loam	Fallow	With seed: 165# 30-15-12S-Zn	None	8.35"/7.00"
Sutter County Newhall Land and Farming Meridian	Wheat Barley Triticale	12/17/86	Silty clay	Tomatoes	Preplant: 90# N (aqua)	Sprinkler: 1.25" (preplant) Flood: 1x (6")	13.2"/11.4"
Yolo County Agronomy Farm UC Davis	Wheat Triticale Barley Oats	11/11/86	Yolo fine sandy loam	Sudangrass	Preplant (wheat): 160# N (NH <sub>4</sub> ) Topdress (wheat): 34# N (NH <sub>4</sub> NO <sub>3</sub> ) Preplant (barley, oats): 80# N (NH <sub>4</sub> )	Sprinkler 1x (wheat, triticale): Flood: 3x (21" total) Sprinkler 1x (barley, oats) Flood 1x (9" total)	7.0"/7.0"
Yolo County Oscar Durst and Sons Dunnigan	Wheat Barley Oats	01/08/87 01/09/87	Sehorn clay	Fallow	With seed: 95# 16-20-0	None	11.5"/8.5"

Table 2. 1987 Butte Barley Test

Entry	Yield (lb/a)	Lodging 5/20	Lodging at harvest	Leaf rust	Plant height (in)	Test weight (lbs/bu)	Thousand kernel weight (grams)
2 Briggs	7690 (12)	2.5	2.3	1.0	41	49.5	47.5
190 UC 566	6480 (28)	4.8	5.0	1.0	41	48.0	46.7
191 CM 72	5920 (30)	6.3	6.8	1.0	38	50.5	45.2
209 Klages	6740 (27)	2.8	2.5	1.0	46	53.5	45.9
316 Prato	7390 (15)	1.0	1.5	1.0	36	49.6	44.0
337 UC 337	8150 ( 5)	2.0	2.5	1.0	41	49.9	43.6
476 UC 476	7510 (14)	1.3	1.0	1.0	39	49.9	44.0
529 UC79083	7970 ( 8)	4.5	2.5	1.0	42	53.5	47.7
584 NK BB-82-2	7860 ( 9)	1.0	1.0	1.0	40	49.7	46.3
603 UC80206	6290 (29)	1.0	1.0	1.0	36	50.3	36.0
618 Gustoe	8340 ( 4)	1.3	3.3	2.0	33	52.3	45.7
657 79AB6871	7170 (19)	2.5	2.8	1.0	44	54.5	50.5
686 Lewis	6880 (24)	4.8	3.0	1.3	43	55.5	47.1
698 Piston	6940 (22)	3.5	3.5	1.0	41	54.1	43.1
699 Menuet	7140 (20)	3.0	3.0	1.0	39	54.6	44.8
700 Lindy	8050 ( 7)	6.5	3.0	1.0	49	49.7	47.8
703 Fiesta	7350 (16)	1.0	1.0	1.3	32	51.7	48.8
705 NK BB 85	8070 ( 6)	1.0	1.0	1.0	38	48.7	44.5
711 UC80074-1	6860 (25)	1.0	1.3	1.0	37	50.1	44.5
713 UC79084-1	7680 (13)	5.3	4.0	1.0	43	49.9	48.0
721 Apex	7250 (18)	3.0	2.3	1.0	42	53.8	48.4
722 Bellona	6840 (26)	1.5	2.0	1.0	40	54.0	49.4
730 NK XBB-86-2	8430 ( 1)	1.0	1.0	1.0	34	49.5	44.6
744 79AB10740	6900 (23)	2.8	2.5	1.0	45	54.2	49.7
753 NK XBB86-4	8370 ( 3)	1.0	1.3	1.0	36	48.7	45.5
754 BFP 80-24	7050 (21)	2.5	5.3	1.5	33	50.1	49.0
755 PH 584-7	7690 (11)	1.0	1.5	1.3	33	52.7	42.4
756 PH 584-9	7830 (10)	1.0	2.8	1.0	34	51.7	49.3
757 PH 584-11	8400 ( 2)	1.5	2.8	1.8	35	49.9	49.0
758 82AB23222	7310 (17)	1.0	1.8	1.0	37	52.0	45.8
Mean	7420	2.4	2.5	1.1	39	51.4	46.1
CV	6.4	38.5	36.6	19.2	3.7	1.9	3.2
LSD (.05)	670	1.3	1.3	0.3	3	2.0	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: BYDV, Net blotch, Scald, and Powdery mildew.

Numbers in parentheses indicate relative rank in column.



Table 3. 1987 Sutter Barley Test

Entry	Yield (lb/a)	Lodging 5/19	Lodging at harvest	Shatter	Leaf rust	Net blotch	Scald	Powdery mildew	Plant height (in)	Test weight (lbs/bu)	Thousand kernel weight (grams)
2 Briggs	3870 (27)	6.0	7.3	1.0	2.5	1.5	1.0	1.5	41	46.4	39.8
190 UC 566	4420 (25)	5.5	6.8	1.0	1.5	1.8	1.5	1.5	40	48.4	39.8
191 CM 72	3840 (28)	6.5	7.5	1.5	2.0	1.5	1.3	1.0	40	49.0	43.4
209 Klages	3920 (26)	4.5	5.8	1.0	3.5	1.0	1.0	1.5	40	53.9	42.1
316 Prato	4770 (23)	3.5	5.8	1.0	2.5	1.8	1.5	1.5	39	48.0	35.3
337 UC 337	5320 (15)	4.0	5.3	1.0	2.0	1.0	1.0	2.5	41	51.3	42.2
476 UC 476	5180 (17)	4.5	5.3	1.0	2.8	1.5	1.0	1.5	38	49.1	38.4
529 UC79083	5750 ( 8)	5.0	6.0	1.0	2.8	1.0	1.0	1.3	41	50.1	41.3
584 NK BB-82-2	6540 ( 5)	1.5	2.5	1.0	2.3	1.3	1.5	2.5	42	48.9	40.8
603 UC80206	6550 ( 4)	1.3	1.8	1.0	2.0	1.3	1.0	1.8	42	51.6	35.8
618 Gustoe	5510 (12)	2.0	5.8	1.0	3.3	1.5	1.0	3.3	38	49.6	34.7
657 79AB6871	4460 (24)	3.3	5.5	1.0	3.0	1.0	1.0	1.3	39	54.0	44.3
686 Lewls	3800 (29)	4.8	6.5	1.5	4.3	1.3	1.0	1.0	41	51.0	37.3
698 Plston	3710 (30)	5.5	6.0	1.0	3.3	1.0	1.3	1.0	35	52.6	35.7
699 Menuet	5080 (21)	5.0	6.3	1.0	1.0	1.3	1.0	1.3	39	55.0	43.4
700 Lindy	4960 (22)	5.3	5.8	1.0	1.0	2.3	1.0	1.8	44	50.9	43.4
703 Fiesta	5640 (10)	2.0	4.3	1.0	1.8	2.8	1.0	2.0	36	53.0	42.7
705 NK BB 85	6900 ( 3)	2.0	5.8	1.0	2.0	1.5	1.0	2.3	42	48.2	36.6
711 UC80074-1	5080 (20)	3.8	4.3	1.0	1.3	1.3	1.0	1.0	36	49.1	39.5
713 UC79084-1	6400 ( 6)	4.3	6.0	1.0	2.0	1.0	1.0	1.8	41	50.0	43.0
721 Apex	5460 (13)	4.0	6.8	2.3	1.0	1.0	1.0	1.0	39	54.2	42.3
722 Bellona	5170 (18)	2.3	4.8	1.0	1.3	1.0	1.5	1.0	41	54.2	45.0
730 NK XBB-86-2	7300 ( 1)	2.0	4.0	1.0	1.5	1.3	1.0	3.5	39	50.4	38.8
744 79AB10740	5420 (14)	3.0	4.3	1.0	2.0	1.0	1.0	1.0	45	53.6	42.8
753 NK XBB86-4	7140 ( 2)	1.8	2.5	1.0	1.3	1.8	1.0	2.8	41	49.7	39.0
754 BFP 80-24	5650 ( 9)	5.3	6.8	1.0	2.3	1.0	1.0	2.5	37	48.2	41.1
755 PH 584-7	5210 (16)	1.3	4.8	1.0	2.0	1.8	1.0	3.0	37	49.6	35.3
756 PH 584-9	6350 ( 7)	1.3	5.5	1.5	1.5	1.8	1.0	2.8	40	52.1	40.8
757 PH 584-11	5630 (11)	1.5	4.5	1.0	2.5	1.8	1.5	3.0	39	50.2	41.0
758 82AB23222	5140 (19)	1.0	5.0	1.0	3.8	1.0	1.3	2.3	42	50.8	37.3
Mean	5340	3.4	5.3	1.1	2.2	1.4	1.1	1.9	40	50.8	40.1
CV	9.0	24.3	16.5	33.0	26.2	35.1	37.4	32.0	4.4	1.9	3.2
LSD (.05)	680	1.2	1.2	0.5	0.8	0.7	NS	0.8	4	2.0	2.7

Rating scale for diseases (area of flag-1 leaf affected), 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.  
 Numbers in parentheses indicate relative rank in column.

Table 4. 1987 UC Davis Barley Test

Entry	Yield (lb/a)	Lodging at harvest	Lodging 5/8	Lodging at harvest	Shatter	BYDV	Leaf rust	Net blotch	Scald	Powdery mildew	Days to heading after 3/1	Days to maturity after 3/1	Plant height (In)	Test weight (lbs/bu)	Thousand kernel weight (gms)
2 Briggs	4660 (18)	5.5		5.8	1.0	1.0	2.3	2.8	1.0	1.0	39	78	37	45.1	34.0
190 UC 566	5550 ( 3)	5.0		5.3	1.0	1.0	1.0	1.0	3.8	1.0	37	73	35	48.7	40.0
191 CM 72	4520 (22)	7.8		7.0	1.0	1.0	2.0	1.0	2.8	1.0	36	71	34	45.5	36.6
209 Klages	3780 (29)	2.5		3.0	1.0	1.8	2.0	1.0	1.3	1.0	44	75	37	50.5	33.6
316 Prato	5430 ( 5)	2.0		3.3	1.0	1.0	2.0	3.5	1.0	1.0	39	72	35	47.8	33.5
337 UC 337	6550 ( 1)	2.3		3.3	1.0	1.0	1.3	1.0	1.0	2.0	39	75	37	50.2	35.6
476 UC 476	5140 (11)	2.5		2.3	1.0	1.0	2.0	1.8	1.3	1.3	43	75	34	47.0	32.8
529 UC79083	6270 ( 2)	3.0		3.5	1.0	1.0	2.5	1.0	1.0	1.0	45	76	35	50.6	39.6
584 NK BB-82-2	5230 (10)	1.0		2.3	1.0	1.3	2.0	2.0	1.0	2.5	45	75	35	46.1	33.3
603 UC80206	5340 ( 8)	1.0		1.3	1.0	1.0	2.3	1.8	1.0	1.8	38	76	35	48.7	29.4
618 Gustoe	4990 (14)	1.0		4.0	1.0	1.0	3.0	1.8	1.0	1.8	49	75	26	47.9	31.1
657 79AB6871	4260 (25)	2.3		2.5	1.3	1.3	1.8	1.0	1.0	1.0	46	72	37	52.5	38.3
686 Lewis	3970 (27)	3.5		4.3	1.0	1.3	2.8	1.0	1.3	1.0	39	71	39	53.1	38.8
698 Piston	4360 (24)	1.8		2.8	1.8	1.3	2.0	1.0	1.8	1.0	42	76	38	52.2	32.9
699 Menuet	4200 (26)	1.3		2.3	1.3	1.0	1.0	1.0	1.5	1.0	45	76	39	54.5	36.4
700 Lindy	4370 (23)	3.3		4.3	1.0	1.0	1.0	2.0	1.0	1.0	57	81	44	48.3	38.3
703 Fiesta	5140 (12)	1.0		4.0	1.0	1.0	1.5	2.3	1.8	1.8	38	70	31	49.2	36.3
705 NK BB 85	5040 (13)	1.0		3.0	1.0	1.0	2.8	1.0	1.0	1.0	41	75	31	45.1	33.1
711 UC80074-1	5400 ( 7)	1.0		1.8	1.0	1.0	1.0	1.0	1.0	1.5	39	76	36	47.6	34.3
713 UC79084-1	5260 ( 9)	3.5		4.0	1.0	1.0	2.0	1.0	1.0	2.0	44	75	32	50.4	40.9
721 Apex	4600 (19)	1.5		2.5	1.0	1.5	1.0	1.0	1.5	1.0	51	73	37	51.2	37.9
722 Bellona	4550 (21)	1.0		1.8	1.3	1.8	1.0	1.0	2.3	1.0	49	76	37	52.9	38.9
730 NK XBB-86-2	5480 ( 4)	1.0		5.5	1.0	1.0	1.8	1.0	1.0	2.3	40	74	28	44.7	29.8
744 79AB10740	3860 (28)	1.8		2.5	1.8	1.3	1.8	1.0	2.3	1.0	44	74	42	52.2	34.4
753 NK XBB86-4	5420 ( 6)	1.0		3.5	1.0	1.3	1.0	2.0	1.0	2.0	45	81	32	43.6	30.4
754 BFP 80-24	4970 (15)	1.5		6.3	1.3	1.0	2.5	1.0	1.0	1.3	43	75	26	45.5	34.8
755 PH 584-7	4590 (20)	1.0		4.0	1.0	1.3	1.3	1.8	1.3	1.8	46	76	30	47.0	31.6
756 PH 584-9	4880 (16)	1.0		5.8	1.0	1.0	1.3	2.8	1.5	1.0	45	73	29	46.4	32.5
757 PH 584-11	4750 (17)	1.0		4.0	1.0	1.0	2.0	2.0	1.3	1.3	49	74	30	43.7	31.8
758 82AB23222	3620 (30)	1.0		3.8	1.0	1.0	4.0	1.0	1.8	1.3	49	75	33	47.3	31.0
Mean	4870	2.1		3.6	1.1	1.1	1.9	1.5	1.4	1.3	44	75	34	48.5	34.7
CV	11.1	32.4		29.2	28.3	25.7	24.8	25.2	33.1	30.2			6.7	3.3	7.2
LSD (.05)	760	1.0		1.5	0.4	0.4	0.6	0.5	0.7	0.6			5	3.2	5.1

Rating scale for diseases (area of flag-1 leaf affected), 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%.

Numbers in parentheses indicate relative rank in column.

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

Table 5. 1987 UC West Side Field Station Barley Test

Entry	Yield (lb/a)	Lodging 5/13	Lodging at harvest	Leaf rust	Scald	Powdery mildew	Plant height (in)	Test weight (lbs/bu)	Thousand kernel weight (grams)
2 Briggs	4700 (14)	2.5	3.3	1.3	1.0	1.0	35	49.0	40.6
190 UC 566	4990 ( 7)	1.8	2.5	1.0	2.5	1.0	36	50.5	42.3
191 CM 72	4790 (12)	3.3	3.8	1.0	1.0	1.0	37	51.6	43.8
209 Klages	4130 (26)	1.0	1.0	1.0	1.0	1.0	37	55.1	40.6
316 Prato	4600 (19)	1.3	1.8	1.0	1.0	1.0	33	49.5	36.7
337 UC 337	5860 ( 1)	1.3	1.5	1.0	1.3	1.3	37	51.0	37.8
476 UC 476	4690 (15)	1.8	1.5	1.5	1.0	1.3	34	48.3	36.1
529 UC79083	5030 ( 5)	2.3	2.3	1.3	1.0	1.0	40	50.7	40.1
584 NK BB-82-2	4630 (18)	1.0	1.0	1.0	1.0	1.0	32	48.8	40.5
603 UC80206	4650 (16)	1.0	1.0	1.0	1.0	1.0	33	51.8	33.7
618 Gustoe	4640 (17)	1.0	3.0	3.3	1.0	2.0	29	51.9	36.7
657 79AB6871	4750 (13)	1.0	1.0	1.0	1.0	1.0	40	54.1	44.2
686 Lewis	4100 (27)	1.0	1.0	1.0	1.0	1.0	40	56.5	43.0
698 Pilston	4330 (22)	1.0	1.3	1.0	1.0	1.0	39	54.7	37.6
699 Menuet	4240 (24)	1.0	1.0	1.0	1.0	1.0	37	54.2	39.4
700 Lindy	4470 (21)	2.3	1.5	1.0	1.0	1.0	46	50.7	42.6
703 Fiesta	4980 ( 8)	1.0	1.3	1.5	1.0	1.0	29	54.0	43.5
711 UC80074-1	4550 (20)	1.0	1.3	1.3	1.0	1.0	31	50.3	39.3
713 UC79084-1	4980 ( 9)	1.0	1.5	1.0	1.0	1.0	35	48.2	37.5
721 Apex	3750 (30)	1.0	3.3	1.3	1.0	1.3	38	51.1	40.3
722 Bellona	3780 (29)	1.0	1.0	1.0	1.0	1.0	32	55.2	41.6
730 NK XBB-86-2	5270 ( 2)	1.0	1.0	1.0	1.0	1.0	36	53.3	42.0
744 79AB10740	4300 (23)	1.0	2.8	1.3	1.0	1.0	30	50.2	37.6
753 NK XBB86-4	5030 ( 6)	1.0	1.5	1.0	1.0	1.0	41	53.1	41.5
754 BFP 80-24	5080 ( 4)	1.0	1.3	1.0	1.0	1.3	34	50.2	39.9
755 PH 584-7	3790 (28)	1.0	4.8	1.0	1.0	1.0	31	56.8	42.3
756 PH 584-9	4940 (10)	1.0	3.3	1.5	1.0	1.8	28	51.6	35.0
757 PH 584-11	5220 ( 3)	1.3	5.3	1.8	1.0	1.3	34	51.5	40.7
758 82AB23222	4170 (25)	1.0	1.8	1.5	1.0	1.0	33	50.1	39.7
		1.0	1.8	1.8	1.0	1.5	33	52.6	36.7
Mean	4640	1.3	2.0	1.2	1.1	1.1	35	51.9	39.8
CV	12.5	59.5	58.3	31.5	19.2	26.1	8.5	5.0	4.6
LSD (.05)	820	1.1	1.6	0.5	0.3	0.4	6	5.3	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 and Net blotch.

Numbers in parentheses indicate relative rank in column.

Table 6. 1987 Kings Barley Test

Entry	Yield (lb/a)	Lodging 5/14	Lodging at harvest	Leaf rust	Net blotch	Plant height (in)	Test weight (lbs/bu)	Thousand kernel weight (grams)
2 Briggs	4770 ( 6)	1.3	1.0	2.3	1.5	38	50.3	44.4
190 UC 566	4880 ( 5)	1.5	1.8	1.0	1.8	40	51.6	48.3
191 CM 72	3680 (26)	2.8	2.3	1.8	1.8	33	53.0	47.3
209 Klages	3490 (29)	1.5	1.3	1.0	1.0	41	52.2	36.3
316 Prato	4400 (15)	1.3	1.0	1.8	1.8	35	50.9	39.0
337 UC 337	5220 ( 2)	1.0	1.0	1.0	1.0	37	53.1	41.2
476 UC 476	4730 ( 7)	1.0	1.0	1.5	1.5	34	51.1	42.4
529 UC79083	5000 ( 4)	1.8	1.0	1.0	1.0	37	51.8	41.5
584 NK BB-82-2	4530 ( 9)	1.0	1.0	1.0	1.0	37	47.7	41.2
603 UC80206	4100 (18)	1.0	1.0	1.5	1.0	34	51.5	33.3
618 Gustoe	3830 (25)	1.0	2.3	2.8	1.0	32	45.0	27.9
657 79AB6871	3900 (22)	1.0	1.0	1.0	1.0	43	52.8	38.6
686 Lewis	4490 (10)	2.0	1.3	1.0	1.0	46	54.4	40.3
698 P1ston	3640 (28)	1.5	1.8	1.0	1.0	39	51.5	31.5
699 Menuet	3650 (27)	1.8	1.8	1.0	1.0	42	52.6	34.2
700 Lindy	4020 (19)	2.3	1.3	1.0	1.0	42	47.3	35.4
703 Fiesta	4440 (12)	1.0	1.0	1.0	1.3	32	52.9	38.7
705 NK BB 85	4190 (17)	1.0	1.5	2.0	1.3	34	47.2	34.0
711 UC80074-1	4270 (16)	1.0	1.0	1.0	1.0	32	51.3	41.3
713 UC79084-1	5540 ( 1)	1.0	1.0	1.0	1.0	40	51.4	41.5
721 Apex	3900 (24)	1.0	1.8	1.0	1.0	40	51.3	36.5
722 Bellona	3410 (30)	1.0	1.0	1.0	1.0	40	51.1	40.0
730 NK XBB-86-2	4410 (14)	1.0	1.0	1.0	1.0	33	50.8	39.2
744 79AB10740	3930 (21)	1.3	1.0	1.0	1.0	42	52.0	38.2
753 NK XBB86-4	4680 ( 8)	1.0	1.0	1.0	1.0	34	49.9	39.0
754 BFP 80-24	4480 (11)	1.0	3.0	1.5	1.0	33	51.2	43.8
755 PH 584-7	3940 (20)	1.0	1.3	1.5	1.0	31	47.4	29.5
756 PH 584-9	5120 ( 3)	1.0	2.3	1.3	1.3	34	51.4	41.5
757 PH 584-11	4420 (13)	1.0	1.3	1.8	1.0	31	46.4	34.0
758 82AB23222	3900 (23)	1.0	2.0	1.5	1.0	37	48.4	31.2
Mean	4300	1.3	1.4	1.3	1.1	37	50.7	38.4
CV	8.5	32.3	30.9	27.6	24.0	4.4	1.3	4.7
LSD (.05)	520	0.6	0.6	0.5	0.4	3	1.3	3.7

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, Scald, and Powdery mildew.

Numbers in parentheses Indicate relative rank in column.

Table 7. 1987 Kern Barley Test

Entry	Yield (lb/a)	Lodging 5/13	Lodging at harvest	Leaf rust	Net blotch	Scald	Powdery mildew	Plant height (in)	Test weight (lbs/bu)	Thousand kernel weight (grams)
2 Briggs	5400 ( 5)	4.5	3.8	1.3	1.0	1.3	1.0	45	48.9	38.0
190 UC 566	4800 (19)	6.8	5.3	1.0	1.8	1.5	1.0	42	49.8	40.2
191 CM 72	4960 (14)	7.3	6.0	1.3	1.5	1.0	1.3	38	49.7	39.8
209 Klages	3850 (27)	5.0	5.5	1.0	1.0	1.0	1.0	43	49.5	32.7
316 Prato	4980 (13)	5.0	4.3	2.0	1.5	1.3	1.0	43	50.5	35.7
337 UC 337	5370 ( 7)	3.5	3.0	1.0	1.3	1.0	1.3	44	51.5	35.3
476 UC 476	5490 ( 3)	4.5	3.5	2.0	1.3	1.3	1.0	45	45.8	30.8
529 UC79083	5050 (11)	4.8	4.3	1.5	1.0	1.3	1.5	44	50.4	37.0
584 NK BB-82-2	5380 ( 6)	2.3	2.3	1.0	2.0	1.5	1.0	43	46.7	35.6
603 UC80206	5730 ( 1)	2.8	2.8	2.0	1.0	1.0	1.0	38	51.0	32.3
618 Gustoe	4820 (17)	3.3	3.3	2.5	1.5	1.3	1.3	34	48.1	29.8
657 79AB6871	4500 (21)	3.0	2.8	1.3	1.0	1.0	1.0	42	53.3	38.3
686 Lewis	3720 (28)	5.5	4.8	1.5	1.0	1.0	1.0	46	52.3	36.6
698 Plston	3960 (26)	5.0	4.0	1.0	1.0	1.5	1.0	41	50.6	32.0
699 Menuet	4260 (23)	4.8	4.3	1.0	1.0	1.0	1.0	42	51.3	30.8
700 Lindy	3610 (30)	7.0	4.8	1.0	1.5	1.0	1.0	44	42.8	31.3
703 Flesta	5090 (10)	1.5	2.3	1.3	2.0	1.3	2.3	34	52.9	41.4
705 NK BB 85	5110 ( 9)	2.8	2.3	1.5	1.5	1.3	1.0	38	45.3	31.5
711 UC80074-1	4010 (25)	6.0	5.3	1.0	1.0	1.0	1.0	41	48.6	32.5
713 UC79084-1	4850 (16)	5.5	4.3	1.3	1.0	1.0	2.3	44	48.2	34.8
721 Apex	3680 (29)	5.8	5.0	1.0	1.0	2.3	1.0	42	50.2	32.5
722 Belltona	4820 (18)	1.5	1.3	1.0	1.0	1.3	1.0	42	51.2	35.9
730 NK XBB-86-2	5030 (12)	4.0	3.8	1.3	1.3	1.0	1.0	34	50.8	37.0
744 79AB10740	4180 (24)	4.3	4.3	1.0	1.0	1.0	1.0	45	53.1	35.7
753 NK XBB86-4	5420 ( 4)	6.0	5.3	1.3	1.8	1.0	1.5	37	48.2	33.8
754 BFP 80-24	5300 ( 8)	6.0	6.0	1.8	1.0	1.3	1.0	32	50.1	39.4
755 PH 584-7	4610 (20)	2.3	2.5	1.8	1.5	1.3	1.5	34	47.9	30.5
756 PH 584-9	5710 ( 2)	5.5	5.0	1.5	2.0	2.0	1.0	40	51.7	40.1
757 PH 584-11	4920 (15)	4.0	2.8	1.5	1.3	1.3	1.0	38	47.3	34.5
758 82AB23222	4490 (22)	2.5	3.3	1.8	1.0	1.0	1.0	39	51.0	34.3
Mean	4770	4.4	3.9	1.4	1.3	1.2	1.2	40	49.6	35.0
CV	17.1	41.1	42.7	36.8	35.8	44.4	23.5	3.6	2.9	5.5
LSD (.05)	1150	2.5	2.3	0.7	0.6	NS	0.4	3	3.0	3.9

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.

Numbers in parentheses indicate relative rank in column.

Table 8. 1987 Yolo Dryland Barley Test

Entry	Yield (lb/a)	Plant height (in)	Test weight (lbs/bu)	Thousand kernel weight (grams)
2 Briggs	2240 ( 3)	26	47.6	36.1
190 UC 566	2440 ( 1)	26	49.9	39.0
191 CM 72	2400 ( 2)	26	50.9	37.5
209 Klages	1660 (24)	25	51.5	31.0
316 Prato	2020 ( 9)	23	48.3	32.5
337 UC 337	2140 ( 4)	24	48.2	31.9
476 UC 476	1800 (19)	23	48.3	34.1
529 UC79083	2100 ( 7)	23	50.1	33.2
584 NK BB-82-2	1680 (22)	23	46.0	32.5
603 UC80206	2100 ( 6)	23	51.3	33.8
618 Gustoe	1440 (28)	19	48.6	28.0
657 79AB6871	1770 (20)	23	50.0	31.5
686 Lewis	1840 (16)	28	51.3	31.5
698 Piston	1720 (21)	22	51.4	31.4
699 Menuet	1950 (12)	25	50.8	31.1
700 Lindy	1810 (18)	27	47.0	34.3
703 Fiesta	1640 (26)	19	50.0	34.7
705 NK BB 85	1910 (14)	22	48.4	32.7
711 UC80074-1	2100 ( 5)	23	50.1	35.1
713 UC79084-1	1660 (23)	22	48.5	32.0
721 Apex	2010 (10)	24	49.6	32.2
722 Bellona	1660 (25)	24	49.0	30.7
730 NK XBB-86-2	2020 ( 8)	21	47.8	32.4
744 79AB10740	1920 (13)	28	50.2	31.9
753 NK XBB86-4	1960 (11)	23	47.7	32.2
754 BFP 80-24	1840 (17)	21	49.8	37.0
755 PH 584-7	1270 (29)	21	47.5	28.6
756 PH 584-9	1500 (27)	20	47.9	32.8
757 PH 584-11	1260 (30)	19	46.2	31.5
758 82AB23222	1860 (15)	25	51.3	33.8
Mean	1860	23	49.2	32.9
CV	11.3	6.8	1.9	3.9
LSD (.05)	300	3	1.9	2.6

Numbers in parentheses indicate relative rank in column.

Table 9. 1987 San Luis Obispo Dryland Barley Test

Entry	Yield (lb/a)	Scald
2 Briggs	830 ( 7)	1.0
190 UC 566	1030 ( 1)	1.8
191 CM 72	1030 ( 2)	1.8
209 Klages	550 (21)	1.0
316 Prato	520 (23)	1.5
337 UC 337	560 (20)	1.3
476 UC 476	610 (16)	1.0
529 UC79083	930 ( 5)	1.8
584 NK BB-82-2	730 (14)	1.0
603 UC80206	350 (27)	1.3
618 Gustoe	490 (24)	1.0
686 Lewis	810 (10)	1.3
698 Piston	570 (17)	1.0
699 Menuet	1000 ( 3)	1.0
700 Lindy	520 (22)	1.5
703 Fiesta	780 (11)	1.3
705 NK BB 85	970 ( 4)	1.5
711 UC80074-1	750 (13)	1.3
721 Apex	810 ( 9)	1.0
722 Bellona	440 (25)	1.0
730 NK XBB-86-2	850 ( 6)	1.0
744 79AB10740	760 (12)	2.0
753 NK XBB86-4	830 ( 8)	1.0
754 BFP 80-24	720 (15)	1.3
755 PH 584-7	310 (28)	1.0
756 PH 584-9	560 (19)	1.0
757 PH 584-11	570 (18)	1.0
758 82AB23222	430 (26)	1.0
Mean	690	1.2
CV	44.3	41.5
LSD (.05)	430	NS

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%.

Numbers in parentheses indicate relative rank in column.

Table 10. 1987 and 1985-87 Barley Yield Summary (lb/a)

Entry	Sacramento Valley			San Joaquin Valley			Dryland		
	1987 3 Loc	1986-87 6 Loc/Yr	1985-87 9 Loc/Yr	1987 3 Loc	1986-87 6 Loc/Yr	1985-87 10 Loc/Yr	1987 2 Loc	1986-87 4 Loc/Yr	1985-87 7 Loc/Yr
2 Briggs	5410 (23)	4820 (12)	5180 (9)	4950 (7)	4260 (14)	4800 (10)	1530 (3)	2230 (8)	2130 (6)
190 UC 566	5480 (21)	4620 (13)	5010 (10)	4890 (10)	4820 (8)	5280 (6)	1740 (1)	2170 (9)	2200 (5)
191 CM 72	4760 (30)	4020 (14)	4250 (11)	4480 (17)	4310 (13)	4590 (11)	1710 (2)	2340 (6)	2390 (2)
209 Klages	4810 (29)			3820 (29)			1110 (23)		
316 Prato	5860 (15)	5340 (10)	5710 (7)	4660 (16)	4550 (11)	5150 (8)	1270 (15)	2030 (12)	1910 (10)
337 UC 337	6670 (3)	6270 (3)	6330 (2)	5480 (1)	5330 (1)	5850 (1)	1350 (11)	2640 (2)	2500 (1)
476 UC 476	5950 (13)	5410 (9)	5790 (6)	4970 (6)	4840 (7)	5430 (5)	1200 (19)	2280 (7)	2200 (4)
529 UC79083	6660 (5)	6220 (4)		5030 (5)	4970 (6)		1510 (4)	2630 (3)	
584 NK BB-82-2	6540 (6)	6220 (5)	6250 (3)	4850 (12)	5000 (5)	5470 (4)	1210 (18)	2170 (10)	2060 (7)
603 UC80206	6060 (11)	5790 (6)	6140 (4)	4830 (14)	5260 (2)	5650 (3)	1230 (16)	1990 (13)	2010 (8)
618 Gustoe	6280 (9)	5620 (7)	6020 (5)	4430 (18)	4670 (10)	5230 (7)	960 (26)	2060 (11)	1920 (9)
657 79AB6871	5300 (26)			4380 (19)					
686 Lewis	4880 (28)			4100 (24)			1330 (13)		
698 Piston	5000 (27)			3980 (28)			1150 (21)		
699 Menuet	5470 (22)			4050 (25)			1470 (5)		
700 LIndy	5790 (17)			4040 (26)			1160 (20)		
703 Fiesta	6040 (12)	5190 (11)	5620 (8)	4840 (13)	4760 (9)	5120 (9)	1210 (17)	1860 (14)	1900 (11)
705 NK BB 85	6670 (4)	6500 (2)	6800 (1)	4720 (15)	5210 (4)	5660 (2)	1440 (6)	2430 (4)	2330 (3)
711 UC80074-1	5780 (18)	5500 (8)		4280 (20)	4370 (12)		1430 (8)	2380 (5)	
713 UC79084-1	6450 (7)			5120 (3)					
721 Apex	5770 (19)			3780 (30)			1410 (9)		
722 Bellona	5520 (20)			4000 (27)			1050 (24)		
730 NK XBB-86-2	7070 (1)	6840 (1)		4910 (9)	5220 (3)		1430 (7)	2720 (1)	
744 79AB10740	5390 (24)			4140 (22)			1340 (12)		
753 NK XBB86-4	6980 (2)			5040 (4)			1400 (10)		
754 BFP 80-24	5890 (14)			4950 (8)			1280 (14)		
755 PH 584-7	5830 (16)			4120 (23)			790 (28)		
756 PH 584-9	6350 (8)			5260 (2)			1030 (25)		
757 PH 584-11	6260 (10)			4850 (11)			910 (27)		
758 82AB23222	5360 (25)			4190 (21)			1150 (22)		
Mean	5880	5600	5740	4570	4830	5290	1280	2280	2140
CV	8.5	8.7	8.9	13.5	11.9	120	20.6	16.9	16.2
LSD (.05)	400	280	240	500	330	280	260	270	200

Numbers in parentheses indicate relative rank in column.



Table 11. 1987 Butte Common Wheat Test

Entry	Yield (lb/a)	Lodging 5/20	Lodging at harvest	Leaf rust	Septoria	Plant height (in)	Test weight (lbs/bu)	Black point	Yellow-berry	Thousand kernel weight (grams)
20 Anza	7520 (16)	1.0	1.0	1.3	1.0	38	63.8	2.5	5.0	40.0
112 Yecora Rojo	7380 (21)	1.0	1.0	1.0	1.0	30	63.7	2.0	1.0	45.3
221 Phoenix	7440 (18)	1.0	1.0	1.0	1.0	37	63.6	2.0	3.0	39.1
353 Yolo	7400 (20)	1.0	1.0	1.0	1.0	37	63.6	1.0	2.5	36.6
415 Klasic	8210 (3)	1.0	1.0	1.0	1.0	34	64.4	2.0	1.0	46.3
521 Westbred 911	6480 (30)	1.0	1.0	1.0	1.0	30	62.7	2.0	1.0	45.4
538 Probrand 775	6790 (27)	1.0	1.0	1.3	1.0	30	60.5	2.0	1.5	37.2
544 Tadinia	7970 (6)	1.0	1.0	1.0	1.0	39	62.6	1.0	5.0	37.2
620 S8330022	7850 (10)	1.0	1.0	1.0	1.0	40	63.2	1.0	1.5	41.5
628 UC 628	7500 (17)	1.0	1.0	1.0	1.0	36	63.9	1.0	1.5	40.4
638 CM 16076	8160 (4)	3.5	2.5	1.0	1.0	40	63.3	1.0	3.5	42.0
671 S8330501	7770 (11)	1.0	1.0	1.0	1.0	37	63.4	1.0	1.0	41.6
672 PH 982-38	7730 (13)	1.8	1.0	1.0	1.0	33	62.6	1.0	2.0	43.0
679 Tammy	6900 (26)	1.0	1.0	1.0	1.0	45	63.5	1.0	1.0	46.3
683 UC 683	8730 (1)	1.0	1.0	1.0	1.0	38	63.1	1.0	3.0	43.0
702 UC 702	7410 (19)	1.3	1.0	1.0	1.0	39	65.1	2.5	1.0	43.8
703 UC 703	7160 (24)	1.0	1.0	1.0	1.0	38	64.0	1.0	1.0	40.5
705 Serl 82	7870 (9)	1.0	1.0	1.0	1.0	37	62.8	1.0	2.0	44.7
716 PH 983-69	7350 (23)	1.0	1.0	1.0	1.0	31	64.0	2.0	1.0	44.7
717 PH 983-13	6560 (28)	1.0	1.0	1.3	1.3	38	63.0	2.0	1.5	46.2
733 BH 122	8080 (5)	1.5	1.0	1.0	1.0	42	62.9	1.0	2.5	51.7
734 NK 85S8607	7380 (22)	1.0	1.0	1.0	1.0	35	62.1	1.0	3.0	44.0
735 NK 85S8608	7600 (14)	1.0	1.0	1.0	1.0	33	61.1	1.5	5.0	38.8
736 NK 85S412	7730 (12)	1.0	1.0	1.0	1.0	30	63.2	1.0	2.0	41.6
737 NK 84S8268	7520 (15)	1.0	1.0	1.0	1.0	38	62.3	1.0	3.0	41.2
744 DA 984-145	6940 (25)	1.0	1.0	1.0	1.0	31	63.7	2.0	1.0	41.8
745 PH 982-163R	8270 (2)	1.0	1.0	1.0	1.0	34	64.1	3.0	1.0	42.8
748 S8630004	7930 (8)	1.0	1.0	1.0	1.0	36	63.9	1.0	2.0	45.6
749 UC 749	6490 (29)	1.0	1.0	1.0	1.0	37	64.3	1.0	1.0	36.9
750 CM 28339	7930 (7)	1.0	1.0	1.0	1.0	42	63.3	2.0	1.0	37.6
Mean	7540	1.1	1.0	1.0	1.0	36	63.3	1.5	2.0	42.2
CV	3.8	24.7	17.4	14.9	9.1	3.4	0.4	14.5	25.9	2.6
LSD (.05)	400	0.4	0.3	NS	NS	3	0.6	0.4	1.1	2.3

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, stripe rust, and Powdery mildew.

Numbers in parentheses indicate relative rank in column.

Table 12. 1987 Sutter Common Wheat Test

Entry	Yield (lb/a)	Lodging 5/19	Lodging at harvest	Leaf rust	Septoria	Powdery mildew	Plant height (in)	Test weight (lbs/bu)	Black point	Yellow- berry	Thousand kernel weight (grams)
20 Anza	6550 (17)	1.0	1.0	1.3	1.0	1.0	38	63.1	2.0	5.5	38.3
112 Yecora Rojo	6610 (15)	1.0	1.3	1.5	1.3	1.0	34	62.7	2.0	1.0	36.3
221 Phoenix	6900 (9)	1.0	1.0	1.3	1.8	1.0	40	63.1	1.0	6.5	36.2
353 Yolo	6980 (7)	1.0	1.0	1.3	1.0	1.0	40	62.8	1.0	5.0	33.0
415 Klasic	6050 (24)	1.5	1.8	1.8	1.5	1.0	37	63.6	2.0	1.0	41.4
521 Westbred 911	5480 (29)	1.0	1.0	1.3	1.3	1.0	31	62.2	1.0	1.5	42.2
538 Probrand 775	6230 (22)	1.0	1.0	1.5	1.5	1.3	32	59.4	2.0	1.0	33.3
544 Tadinia	6990 (6)	1.0	1.0	3.3	1.0	1.0	41	61.8	1.0	7.5	35.8
620 S8330022	6350 (19)	1.5	1.3	1.0	1.5	1.0	41	62.7	1.0	2.0	38.9
628 UC 628	6410 (18)	1.0	1.3	1.3	1.0	1.0	39	63.9	1.0	1.0	38.3
638 CM 16076	7950 (1)	1.0	2.5	3.5	1.0	1.0	40	62.8	1.0	5.0	40.0
671 S8330501	6600 (16)	1.0	1.0	1.0	1.0	1.0	39	62.3	1.0	1.0	37.5
672 PH 982-38	6710 (12)	1.0	1.0	1.3	1.3	1.0	33	61.8	2.0	2.5	42.2
679 Tammy	5850 (27)	3.5	3.5	1.0	1.3	1.0	42	63.0	1.0	4.5	43.5
683 UC 683	6840 (10)	1.0	1.0	1.0	1.0	1.0	38	62.5	1.0	4.5	43.8
702 UC 702	7100 (5)	1.0	1.3	1.3	1.0	1.0	39	64.3	2.0	1.0	40.8
703 UC 703	6330 (21)	1.5	2.3	1.8	1.5	1.3	41	63.1	1.0	1.0	37.5
705 Serl 82	7830 (2)	1.0	1.0	1.0	1.3	1.0	39	61.9	1.5	1.0	42.3
716 PH 983-69	6220 (23)	1.0	2.0	1.8	1.0	1.0	35	62.4	2.5	1.0	39.6
717 PH 983-13	6730 (11)	1.8	2.3	2.5	2.3	1.3	44	62.7	3.0	2.5	43.0
733 BH 122	7520 (3)	1.3	1.8	1.8	1.0	1.3	43	62.6	1.0	3.5	48.4
734 NK 85S8607	6330 (20)	1.0	1.0	2.5	1.3	1.8	37	61.0	1.5	3.0	41.3
735 NK 85S8608	5030 (30)	1.0	1.3	1.0	1.3	1.0	35	58.9	1.5	4.5	33.3
736 NK 85S412	6690 (14)	1.0	1.0	1.0	1.0	1.0	32	61.9	2.0	2.0	34.7
737 NK 84S8268	5930 (26)	1.0	1.0	1.5	1.5	1.0	36	62.0	2.0	3.0	38.3
744 DA 984-145	6700 (13)	1.0	1.0	1.0	1.0	1.0	34	63.0	2.0	1.5	38.8
745 PH 982-163R	5740 (28)	2.0	3.0	2.5	1.8	1.0	33	63.7	3.5	1.5	42.3
748 S8630004	6950 (8)	1.0	1.0	1.0	1.5	1.8	38	63.3	1.0	3.5	41.8
749 UC 749	5980 (25)	1.0	1.0	1.0	1.5	1.0	40	64.0	1.0	2.5	34.0
750 CM 28339	7290 (4)	1.0	1.0	1.0	1.0	1.0	42	62.6	2.0	2.0	34.3
Mean	6560	1.2	1.4	1.5	1.3	1.1	38	62.5	1.6	2.8	39.0
CV	6.7	37.7	32.8	30.5	40.9	20.3	4.2	0.5	18.0	32.0	3.9
LSD (.05)	610	0.6	0.6	0.7	NS	0.3	3	0.7	0.6	1.8	3.1

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%; 50-69%; 6 = 70-84%; 7 = 85-95%; 8 = 96-100%.  
Diseases assessed by occurring in trace or less amounts: BYDV and stripe rust.  
Numbers in parentheses indicate relative rank in column.

Table 13. 1987 UC Davis Common Wheat Test

Entry	Yield (lb/a)	Lodging at harvest	Leaf rust	Stripe rust	Septoria	Plant height (in)	Days to heading after 3/1	Days to maturity after 3/1	Test weight (lbs/bu)	Yellow-berry	Thousand kernel weight (grams)
20 Anza	7390 (12)	4.5	2.5	1.0	1.0	33	50	96	63.1	6.5	35.9
112 Yecora Rojo	7480 (10)	4.0	1.5	1.0	1.3	32	43	82	62.7	1.0	42.2
221 Phoenix	7190 (15)	3.0	2.3	1.0	1.3	33	48	84	63.6	3.0	37.5
353 Yolo	7540 (7)	2.8	1.8	1.0	1.0	35	51	83	63.5	5.5	35.3
415 Klasic	7630 (5)	2.5	1.5	1.0	1.5	30	43	87	63.9	1.0	45.0
521 Westbred 911	4940 (30)	1.0	2.5	1.0	1.8	29	54	91	62.3	1.0	43.3
538 Probrand 775	6710 (22)	1.0	3.0	1.3	3.0	28	46	89	60.0	1.5	33.3
544 Tadinia	6880 (18)	3.0	3.5	1.0	1.0	37	46	85	62.4	5.0	36.0
620 S8330022	6730 (20)	3.8	1.0	1.0	1.3	34	44	84	62.7	1.5	38.9
628 UC 628	7130 (16)	2.5	1.5	1.0	1.0	34	46	83	63.5	1.0	38.6
638 CM 16076	7510 (8)	5.0	3.5	1.0	1.0	37	50	89	62.6	3.0	38.3
671 S8330501	7760 (2)	2.8	1.0	1.0	1.5	36	46	83	62.5	1.0	39.2
672 PH 982-38	6660 (23)	3.5	2.5	1.0	1.8	35	53	96	62.4	2.5	41.3
679 Tammy	6000 (29)	2.8	1.0	1.0	1.0	40	46	84	63.2	1.0	43.5
683 UC 683	7730 (3)	1.3	1.0	1.0	1.0	36	50	96	62.9	1.5	40.0
702 UC 702	7370 (13)	3.8	1.3	1.0	1.0	34	41	86	64.4	1.0	41.3
703 UC 703	6780 (19)	4.3	1.5	1.0	1.5	35	46	86	63.2	1.0	36.2
705 Serl 82	7880 (1)	1.0	1.0	1.0	1.3	35	47	83	61.8	1.0	43.3
716 PH 983-69	7260 (14)	4.3	2.0	1.0	1.3	30	43	84	63.6	1.0	41.9
717 PH 983-13	6200 (27)	3.5	1.3	2.5	1.8	36	33	75	62.7	1.0	42.5
733 BH 122	7460 (11)	3.3	1.3	2.0	1.0	40	49	85	62.7	2.5	48.1
734 NK 85S8607	6470 (25)	1.0	1.3	1.5	1.0	33	51	96	61.2	3.0	42.2
735 NK 85S8608	6400 (26)	1.0	1.0	1.0	1.0	32	53	96	59.9	4.0	36.0
736 NK 85S412	6920 (17)	1.0	2.0	1.3	1.0	31	48	83	62.7	1.0	38.0
737 NK 84S8268	6540 (24)	1.0	1.3	1.0	1.0	36	51	91	62.5	3.5	38.4
744 DA 984-145	6720 (21)	1.3	1.0	1.0	1.3	32	48	91	63.5	1.0	39.9
745 PH 982-163R	7550 (6)	3.8	3.0	1.0	2.8	33	51	96	63.2	1.0	40.0
748 S8630004	7490 (9)	1.5	1.5	1.0	1.8	35	51	92	63.4	2.0	44.7
749 UC 749	6200 (28)	2.3	1.0	1.0	1.3	34	48	83	63.1	1.5	31.9
750 CM 28339	7730 (4)	2.0	1.3	1.0	1.0	37	47	91	62.8	1.5	36.2
Mean	7010	2.6	1.7	1.1	1.3	34	47	88	62.7	2.1	39.6
CV	5.5	40.8	34.8	22.2	34.1	4.5			0.7	8.8	3.4
LSD (.05)	540	1.5	0.8	0.3	0.6	3			0.9	1.6	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 and Powdery mildew.  
Numbers in parentheses indicate relative rank in column.

Table 14. 1987 Sacramento-San Joaquin Delta Common Wheat Test

Entry	Yield (lb/a)	Lodging at harvest	Shatter	Leaf rust	Stripe rust	Saptoria	Test weight (lbs/bu)	Plant height (in)	Black point	Yellow- berry	Thousand kernel weight (grams)
20 Anza	7780 (10)	1.0	1.0	1.3	1.0	2.0	63.7	37	1.0	3.5	36.3
112 Yecora Rojo	7540 (17)	1.0	1.0	1.3	1.0	4.8	62.8	35	1.0	1.0	42.8
221 Phoenix	8100 (3)	1.0	1.0	1.0	1.0	2.3	63.3	38	1.0	1.5	36.9
353 Yolo	8100 (4)	1.0	1.0	1.8	1.0	1.5	63.1	40	1.0	1.0	32.8
415 Klasic	8580 (1)	1.0	1.0	1.5	1.0	3.3	63.2	36	1.5	1.0	42.5
521 Westbred 911	7130 (23)	1.0	1.0	1.5	1.0	2.3	62.5	34	1.0	1.0	43.7
538 Probrand 775	6890 (26)	1.0	1.0	1.8	1.0	5.3	58.4	32	1.0	1.0	32.0
544 Tadinla	7070 (24)	1.0	1.0	2.8	1.0	1.0	61.8	41	1.0	3.0	36.8
620 S8330022	6780 (28)	1.0	2.0	1.0	1.0	2.5	61.9	39	1.0	1.5	36.4
628 UC 628	7990 (8)	1.0	1.0	1.0	1.0	2.5	63.2	39	1.0	1.0	36.8
638 CM 16076	7880 (9)	2.3	1.3	2.0	1.0	1.3	62.4	42	1.0	2.0	38.2
671 S8330501	7770 (12)	1.0	1.0	1.0	1.0	1.3	62.0	39	1.0	1.0	36.4
672 PH 982-38	7580 (15)	1.0	1.0	1.0	1.0	3.5	62.3	34	1.0	1.0	42.4
679 Tammy	7190 (22)	1.0	1.8	1.0	1.0	1.0	62.9	44	1.0	1.0	45.3
683 UC 683	8310 (2)	1.0	1.0	1.0	1.0	1.0	63.1	40	1.0	1.5	41.0
702 UC 702	7640 (14)	1.0	1.0	1.8	1.0	2.0	64.2	40	1.0	1.0	41.0
703 UC 703	7040 (25)	1.0	1.0	1.5	1.0	1.0	63.1	40	1.0	1.0	38.5
705 Serl 82	8060 (7)	1.0	1.0	1.0	1.0	2.0	61.4	38	1.0	1.0	41.5
716 PH 983-69	7250 (20)	1.0	1.0	1.0	1.0	6.5	63.1	34	1.0	1.0	42.4
717 PH 983-13	5890 (30)	1.0	3.5	1.0	5.0	4.5	62.5	44	1.0	1.0	45.0
733 BH 122	7650 (13)	1.0	2.8	1.5	3.0	1.0	62.1	45	1.0	2.5	49.4
734 NK 85S8607	7780 (11)	1.0	1.0	2.0	2.5	1.3	60.3	35	1.0	2.5	36.7
735 NK 85S8608	7260 (19)	1.0	1.0	1.0	2.0	1.3	59.5	35	1.0	5.0	35.4
736 NK 85S412	8060 (6)	1.0	1.0	1.5	1.0	1.0	62.3	33	1.0	2.5	37.5
737 NK 84S8268	6860 (27)	1.0	1.0	2.0	1.0	1.3	61.6	39	1.0	2.5	36.6
744 DA 984-145	7450 (18)	1.0	1.0	1.0	1.3	2.0	62.5	34	1.0	1.0	36.9
745 PH 982-163R	7540 (16)	1.0	1.0	1.8	1.0	4.5	62.6	37	2.0	1.0	38.2
748 S8630004	8070 (5)	1.0	1.0	1.3	1.0	2.3	63.3	39	1.0	1.5	44.5
749 UC 749	6220 (29)	1.0	2.3	1.5	1.0	1.8	63.2	37	1.0	1.0	33.8
750 CM 28339	7220 (21)	1.0	1.8	1.0	1.0	1.3	61.8	41	1.0	1.0	35.3
Mean	7490	1.0	1.3	1.4	1.3	2.3	62.3	38	1.0	1.6	39.1
CV	5.3	16.8	31.8	36.3	29.3	40.6	0.5	4.0	12.3	34.2	3.3
LSD (.05)	560	0.2	0.6	0.7	0.5	1.3	0.7	3	0.3	1.1	2.7

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: BYDV and Powdery mildew.

Numbers in parentheses indicate relative rank in column.

Table 15. 1987 UC West Side Field Station Common Wheat Test

Entry	Yield (lb/a)	Stripe rust	Plant height (in)	Test weight (lbs/bu)	Yellow- berry	Thousand kernel weight (grams)
20 Anza	5330 (10)	1.0	34	61.5	7.5	34.3
112 Yecora Rojo	4770 (24)	1.0	31	62.6	3.0	41.3
221 Phoenix	5630 ( 6)	1.0	33	61.8	8.0	33.8
353 Yolo	5850 ( 1)	1.0	34	61.8	8.0	32.0
415 Klasic	4930 (19)	1.0	29	63.2	8.0	42.0
521 Westbred 911	4340 (30)	1.0	28	60.9	5.0	34.8
538 Probrand 775	5030 (17)	1.3	29	60.1	2.5	30.3
544 Tadinia	5150 (14)	1.0	37	60.1	8.0	32.3
620 S8330022	5700 ( 5)	1.0	36	61.0	4.0	32.5
628 UC 628	5730 ( 4)	1.0	36	62.6	5.0	36.5
638 CM 16076	5800 ( 3)	1.0	40	61.8	7.0	37.1
671 S8330501	5810 ( 2)	1.0	35	61.5	3.0	35.8
672 PH 982-38	5360 ( 9)	1.0	31	61.2	7.0	40.5
679 Tammy	4480 (28)	1.0	41	60.9	6.5	37.5
683 UC 683	4760 (25)	1.0	33	61.0	7.0	34.8
702 UC 702	5160 (13)	1.0	34	64.2	4.5	36.2
703 UC 703	5390 ( 8)	1.0	34	61.4	1.0	32.5
705 Serl 82	5300 (11)	1.0	37	60.2	6.0	35.8
716 PH 983-69	4850 (22)	1.0	32	63.1	5.0	40.1
717 PH 983-13	5090 (16)	1.0	40	62.4	5.5	43.4
733 BH 122	4950 (18)	1.3	39	60.4	7.5	43.5
734 NK 85S8607	5160 (12)	1.0	32	59.3	7.5	33.3
735 NK 85S8608	4610 (27)	1.0	30	58.5	8.0	31.3
736 NK 85S412	4890 (20)	1.0	27	60.8	7.5	34.8
737 NK 84S8268	4830 (23)	1.0	34	58.8	4.0	31.1
744 DA 984-145	4750 (26)	1.0	31	61.9	7.5	39.3
745 PH 982-163R	5620 ( 7)	1.0	32	62.7	5.0	32.0
748 S8630004	5110 (15)	1.0	34	61.8	4.0	36.9
749 UC 749	4440 (29)	1.0	35	62.3	5.5	31.9
750 CM 28339	4860 (21)	1.0	37	61.8	7.0	30.5
Mean	5120	1.0	34	61.4	5.8	35.6
CV	14.9	12.8	4.5	0.7	30.2	5.7
LSD (.05)	NS	NS	3	0.9	3.6	4.1

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, Septoria, and Powdery mildew.

Numbers in parentheses indicate relative rank in column.

Table 16. 1987 Kings Common Wheat Test

Entry	Yield (lb/a)	Plant height (in)	Test weight (lbs/bu)	Yellow- berry	Thousand kernel weight (grams)
20 Anza	6390 ( 6)	35	62.5	7.5	36.3
112 Yecora Rojo	6030 (13)	30	61.8	1.0	37.4
221 Phoenix	6180 (11)	33	62.3	7.5	35.1
353 Yolo	6310 ( 8)	35	63.3	7.5	31.7
415 Klasic	6890 ( 1)	28	63.3	1.5	40.0
521 Westbred 911	3880 (30)	28	61.7	1.5	37.0
538 Probrand 775	5650 (21)	27	59.6	1.5	34.5
544 Tadinia	5120 (27)	36	60.7	4.5	34.0
620 S8330022	5780 (19)	34	61.6	2.0	36.9
628 UC 628	6300 (10)	34	63.1	2.5	38.5
638 CM 16076	6630 ( 4)	38	63.1	2.5	38.5
671 S8330501	6750 ( 3)	36	62.2	1.0	36.3
672 PH 982-38	5570 (22)	30	62.6	3.0	41.0
679 Tammy	5420 (23)	42	62.6	1.5	40.3
683 UC 683	5680 (20)	35	62.6	2.5	37.2
702 UC 702	6390 ( 5)	36	63.6	1.0	37.5
703 UC 703	6300 ( 9)	36	63.1	1.0	37.5
705 Seri 82	5900 (17)	33	61.5	1.0	41.8
716 PH 983-69	6380 ( 7)	29	62.0	1.5	37.2
717 PH 983-13	6770 ( 2)	37	61.9	2.5	38.8
733 BH 122	6040 (12)	40	62.0	2.0	44.0
734 NK 85S8607	5180 (26)	31	61.2	2.5	39.5
735 NK 85S8608	5000 (28)	30	59.5	5.0	33.0
736 NK 85S412	5970 (14)	28	62.5	4.5	35.3
737 NK 84S8268	4750 (29)	34	60.9	5.0	35.8
744 DA 984-145	5190 (25)	30	62.2	1.5	36.3
745 PH 982-163R	5920 (16)	33	63.3	1.0	38.5
748 S8630004	5400 (24)	36	62.6	3.0	40.2
749 UC 749	5900 (18)	35	63.1	3.0	33.5
750 CM 28339	5920 (15)	36	61.9	2.0	32.5
Mean	5850	33	62.1	2.8	37.2
CV	5.2	4.4	0.5	27.0	3.1
LSD (.05)	420	3	0.7	1.5	2.4

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

Numbers in parentheses indicate relative rank in column.

Table 17. 1987 Kern Common Wheat Test

Entry	Yield (lb/a)	Lodging 5/13	Lodging at harvest	Shatter	Stripe rust	Plant height (in)	Test weight (lbs/bu)	Yellow- berry	Thousand kernel weight (grams)
20 Anza	5220 (11)	3.3	3.0	2.3	1.0	38	61.8	4.5	35.4
112 Yecora Rojo	5170 (12)	5.3	4.8	1.5	1.0	33	62.6	1.0	44.7
221 Phoenix	4710 (20)	6.0	4.5	3.5	1.0	39	60.1	1.5	32.5
353 Yolo	5610 (6)	5.5	4.8	1.5	1.0	37	60.6	2.5	32.0
415 Klasic	5980 (4)	6.5	4.5	2.0	1.0	34	62.7	1.0	44.8
521 Westbred 911	3650 (30)	1.3	1.0	3.0	1.0	33	59.9	1.0	38.0
538 Probrand 775	6250 (1)	1.0	1.0	1.0	1.0	33	59.8	1.0	33.3
544 Tadinia	6090 (3)	2.0	1.8	1.3	1.0	41	60.6	1.5	34.7
620 S8330022	5060 (14)	4.8	4.3	2.5	1.0	39	62.3	1.5	37.0
628 UC 628	5480 (8)	5.3	4.8	1.5	1.0	37	61.3	1.0	33.6
638 CM 16076	5430 (9)	7.5	7.5	1.8	1.0	39	59.6	1.0	36.7
671 S8330501	6110 (2)	3.0	2.5	1.5	1.0	38	61.0	1.0	36.3
672 PH 982-38	4540 (23)	2.0	1.5	2.5	1.0	34	61.4	1.0	38.6
679 Tammy	4740 (19)	4.0	3.8	1.5	1.0	41	61.9	1.0	42.7
683 UC 683	4580 (22)	4.3	3.0	2.5	1.0	38	60.5	1.5	37.0
702 UC 702	5580 (7)	3.0	3.3	1.0	1.0	39	63.7	1.0	39.6
703 UC 703	5720 (5)	7.5	6.3	1.5	1.0	38	60.7	1.0	34.6
705 Serl 82	4830 (18)	2.8	2.0	2.3	1.0	38	58.5	1.0	35.8
716 PH 983-69	5390 (10)	4.5	4.5	1.0	1.0	34	62.2	1.0	43.0
717 PH 983-13	5050 (15)	5.0	5.0	1.0	1.0	39	61.3	1.5	41.0
733 BH 122	4500 (25)	5.0	3.5	1.5	1.5	41	60.0	2.0	42.1
734 NK 85S8607	4180 (28)	1.0	1.0	3.0	1.0	35	59.3	1.0	33.3
735 NK 85S8608	5100 (13)	1.0	1.0	1.0	1.0	34	58.9	2.0	34.3
736 NK 85S412	4630 (21)	1.0	1.3	3.3	1.3	34	61.8	1.0	36.8
737 NK 84S8268	3970 (29)	1.8	2.3	3.0	1.0	38	59.5	2.5	32.8
744 DA 984-145	4530 (24)	1.3	1.5	2.0	1.0	33	61.9	1.0	38.4
745 PH 982-163R	4390 (26)	1.3	1.0	3.3	1.0	35	63.5	1.0	41.4
748 S8630004	4280 (27)	1.8	1.3	3.3	1.0	39	61.3	1.0	39.0
749 UC 749	4910 (17)	1.5	1.3	2.0	1.0	38	62.5	1.5	31.9
750 CM 28339	4960 (16)	5.0	4.5	1.8	1.0	40	61.4	1.0	32.3
Mean	5020	3.5	3.1	2.0	1.0	37	61.1	1.4	37.1
CV	19.4	39.7	44.3	53.6	13.5	3.1	1.6	25.8	6.6
LSD (.05)	1370	1.9	1.9	1.5	0.2	2	2.0	0.7	5.0

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: BYDV, leaf rust, Septoria, Powdery mildew and Black point.

Numbers in parentheses indicate relative rank in column.

Table 18. 1987 Yolo Dryland Common Wheat Test

Entry	Yield (lb/a)	Plant height (in)	Test weight (lbs/bu)	Yellow- berry	Thousand kernel weight (grams)
20 Anza	1340 (19)	27	61.1	2.5	27.3
112 Yecora Rojo	1650 ( 6)	23	60.7	1.0	31.5
221 Phoenix	1180 (25)	25	61.0	2.0	26.0
353 Yolo	1180 (24)	27	59.9	2.0	24.3
415 Klasic	1660 ( 4)	24	59.1	1.5	29.9
521 Westbred 911	1040 (30)	23	59.1	1.0	29.5
538 Probrand 775	1360 (16)	21	58.7	1.5	26.6
544 Tadinia	1420 (12)	29	58.0	5.5	26.1
620 S8330022	1720 ( 3)	31	60.3	1.5	30.1
628 UC 628	1410 (13)	26	61.3	1.5	27.9
638 CM 16076	1470 ( 9)	27	58.7	3.0	27.8
671 S8330501	1480 ( 8)	27	59.6	1.5	26.1
672 PH 982-38	1580 ( 7)	25	59.8	2.0	28.2
679 Tammy	1340 (17)	33	60.5	2.0	30.4
683 UC 683	1410 (15)	27	58.5	1.0	25.0
702 UC 702	1210 (22)	27	60.5	1.0	26.9
703 UC 703	1340 (18)	27	59.5	1.5	26.7
705 Seri 82	1320 (20)	28	56.6	1.5	23.9
716 PH 983-69	1660 ( 5)	23	60.2	1.0	29.1
717 PH 983-13	1760 ( 1)	32	60.2	2.5	33.3
733 BH 122	1150 (26)	28	57.4	2.0	31.9
734 NK 85S8607	1120 (29)	24	57.3	1.0	25.1
735 NK 85S8608	1150 (27)	22	57.5	2.5	24.9
736 NK 85S412	1190 (23)	23	57.6	3.0	25.5
737 NK 84S8268	1130 (28)	25	58.3	3.0	25.5
744 DA 984-145	1410 (14)	24	60.7	1.5	30.5
745 PH 982-163R	1460 (11)	25	61.3	1.5	33.1
748 S8630004	1260 (21)	26	60.0	1.0	28.1
749 UC 749	1470 (10)	28	62.4	1.5	26.2
750 CM 28339	1730 ( 2)	30	59.9	4.0	26.5
Mean	1390	26	59.5	1.9	27.8
CV	16.2	7.3	1.0	28.7	4.2
LSD (.05)	320	4	1.2	1.1	2.4

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%.

Numbers in parentheses indicate relative rank in column.



Table 19. 1987 and 1985-87 Common Wheat Yield Summary (lb/a)

Entry	Sacramento Valley			San Joaquin Valley			Dryland		
	1987 4 Loc.	1986-87 7 Loc-Yr	1985-87 11 Loc-Yr	1987 3 Loc	1986-87 6 Loc-Yr	1985-87 10 Loc-Yr	1986-87 3 Loc-Yr	1985-87 5 Loc-Yr	1985-87 5 Loc-Yr
20 Anza	7310 (13)	6550 (5)	6950 (6)	5640 (8)	5550 (12)	6310 (6)	2820 (6)	2560 (5)	
112 Yecora Rojo	7250 (16)	6050 (13)	6500 (12)	5320 (16)	5550 (13)	6100 (12)	2610 (12)	2380 (10)	
221 Phoenix	7410 (10)	6330 (9)	6870 (8)	5510 (13)	5430 (17)	6310 (7)	2820 (5)	2490 (7)	
353 Yolo	7510 (8)	6710 (4)	7400 (2)	5920 (4)	5870 (4)	6570 (3)	2380 (19)	2270 (13)	
415 Klasic	7620 (5)	6210 (12)	6850 (9)	5930 (3)	6250 (1)	6660 (1)	2470 (16)	2410 (9)	
521 Westbred 911	6010 (30)	5870 (15)	6590 (11)	3950 (30)	4890 (19)	5780 (14)	2400 (18)	2150 (14)	
538 Probrand 775	6650 (25)	5520 (18)	6270 (14)	5640 (9)	5830 (5)	6560 (4)	2780 (9)	2580 (4)	
544 Tadinia	7220 (17)	6840 (3)	6990 (4)	5450 (14)	5520 (14)	6030 (13)	3080 (2)	2650 (3)	
620 S8330022	6930 (22)	5890 (14)	6340 (13)	5510 (12)	5650 (8)	6250 (11)	2480 (15)	2300 (12)	
628 UC 628	7260 (15)	6240 (11)	6600 (10)	5840 (5)	5690 (7)	6270 (10)	2620 (11)	2320 (11)	
638 CM 16076	7870 (3)	6880 (2)	7360 (3)	5960 (2)	5870 (3)	6380 (5)	2880 (3)	2670 (2)	
671 S8330501	7470 (9)	6360 (8)	6970 (5)	6220 (1)	6030 (2)	6600 (2)	2730 (10)	2510 (6)	
672 PH 982-38	7170 (18)	6480 (7)	6940 (7)	5160 (21)	5470 (16)	6300 (8)	2810 (7)	2480 (8)	
679 Tammy	6490 (27)	-	-	4880 (26)	-	-	-	-	
683 UC 683	7900 (2)	7400 (1)	7640 (2)	5010 (23)	5570 (11)	6300 (9)	3110 (1)	2740 (1)	
702 UC 702	7380 (11)	6310 (10)	-	5710 (7)	5790 (6)	-	2530 (13)	-	
703 UC 703	6830 (23)	5780 (16)	-	5800 (6)	5430 (18)	-	2510 (14)	-	
705 Serl 82	7910 (1)	6530 (6)	-	5340 (15)	5650 (9)	-	2830 (4)	-	
716 PH 983-69	7020 (19)	5760 (17)	-	5540 (11)	5650 (10)	-	2800 (8)	-	
717 PH 983-13	6340 (28)	4830 (19)	-	5640 (10)	5500 (15)	-	2430 (17)	-	
733 BH 122	7680 (4)	-	-	5160 (19)	-	-	-	-	
734 NK 85S8607	6990 (20)	-	-	4840 (27)	-	-	-	-	
735 NK 85S8608	6570 (26)	-	-	4910 (25)	-	-	-	-	
736 NK 85S412	7350 (12)	-	-	5160 (20)	-	-	-	-	
737 NK 84S8268	6710 (24)	-	-	4510 (29)	-	-	-	-	
744 DA 984-145	6950 (21)	-	-	4830 (28)	-	-	-	-	
745 PH 982-163R	7280 (14)	-	-	5310 (17)	-	-	-	-	
748 S8630004	7610 (6)	-	-	4930 (24)	-	-	-	-	
749 UC 749	6220 (29)	-	-	5080 (22)	-	-	-	-	
750 CM 28339	7540 (7)	-	-	5250 (18)	-	-	-	-	
Mean	7150	6240	6880	5330	5640	6320	2690	2470	
CV	5.3	5.9	5.8	13.8	11.3	10.3	16.1	16.3	
LSD (.05)	260	190	170	590	360	280	350	250	

Numbers in parentheses indicate relative rank in column.

Table 20. 1986 Butte and Sutter Common Wheat Tests, Quality Evaluations\*

Entry	Variety	Flour				Mixograph		Baking			
		YLD	ASH	MSC	PRO	ABS	TY	ABS	MT	LVOL	BC
<u>Butte, 1986</u>											
20	Anza	71.3	0.37	87.5	6.9	57.9	2M	58.6	1.0	568	9
112	Yecora Rojo	71.0	0.39	86.4	9.2	58.8	8M	60.5	3.5	626	4
221	Phoenix	72.6	0.37	88.9	7.4	58.1	2L	59.8	2.0	637	9
353	Yolo	72.3	0.37	88.4	6.5	56.5	2L	58.2	2.2	653	9
415	Klasic	73.7	0.38	89.3	8.8	59.2	8M	60.9	4.6	685	4
521	Westbred 911	69.1	0.39	84.1	7.2	60.1	4L	61.8	2.6	635	8
538	Probrand 775	73.0	0.39	88.4	7.7	59.9	6L	61.6	3.5	679	5
544	Tadlnia	73.2	0.35	90.7	6.9	56.3	2L	57.0	1.3	628	8
619	S8330014	72.3	0.39	87.7	8.4	61.7	7M	63.4	3.6	650	5
620	S8330022	69.0	0.38	84.5	7.8	61.8	6L	63.5	4.1	622	8
628	UC 628	71.5	0.39	86.9	7.8	59.2	3M				
633	UC 633	75.1	0.42	89.0	6.5	55.6	2L				
635	UC 635	72.0	0.42	85.7	7.8	57.9	3L				
638	CM16076	73.8	0.39	89.3	7.1	56.0	8L				
662	BH100	70.4	0.40	84.8	7.5	58.0	3L				
664	BH202	70.3	0.41	84.2	7.0	58.1	2L				
666	BH205	67.3	0.39	82.5	7.8	57.5	8L				
671	S8330501	69.5	0.42	82.9	8.1	57.2	3L				
672	P982-38	68.3	0.41	82.5	7.0	59.8	4L				
680	Calgene 1551	68.8	0.50	77.9	7.7	60.1	8M	61.8	4.6	644	7
681	UC 681	70.1	0.38	85.9	8.0	59.2	4L				
682	UC 682	69.4	0.37	85.6	7.6	59.2	6L				
683	UC 683	66.1	0.45	78.0	5.6	61.2	2L				
684	Veery 'S'	68.7	0.43	81.7	8.5	56.8	3L				
702	UC 702	69.2	0.39	84.4	8.4	58.3	3M	60.0	2.8	650	6
703	UC 703	69.6	0.36	86.5	9.1	59.1	8M				
705	Seri 82	66.2	0.48	76.6	6.4	57.6	2L				
715	P983-102	69.7	0.37	86.0	8.5	60.0	4M	61.7	2.5	559	8
716	P983-69	71.0	0.38	86.5	9.4	59.4	8M	62.6	3.7	648	6
717	P983-13	70.4	0.38	86.1	8.9	59.1	4M	60.8	3.4	584	8
718	NK83S203	69.5	0.43	82.2	8.1	61.2	4L				
719	NK83S216	69.8	0.43	82.6	7.3	60.3	8L				
720	NK83S609	71.2	0.41	85.4	7.6	58.6	7L				
<u>Sutter, 1986</u>											
20	Anza	70.2	0.34	87.7	8.7	60.2	2M	60.9	1.3	756	8
112	Yecora Rojo	71.3	0.39	86.7	10.7	62.0	5H	63.7	4.1	862	2
221	Phoenix	70.9	0.37	87.3	9.1	61.1	2M	61.8	1.5	821	8
353	Yolo	71.6	0.34	89.2	8.6	59.1	3M	60.8	2.0	872	9
415	Klasic	71.5	0.36	88.5	10.6	61.5	8M	63.2	5.1	933	2
521	Westbred 911	68.3	0.33	86.4	10.1	62.2	7M	64.9	3.2	809	5
538	Probrand 775	69.9	0.40	84.4	11.7	64.2	5H	65.9	4.2	865	2
544	Tadlnia	72.6	0.30	92.5	10.7	61.1	2M	61.8	1.3	762	9
619	S8330014	71.9	0.31	91.3	11.1	67.4	5H	69.1	3.4	842	2
620	S8330022	68.8	0.34	86.5	10.4	64.6	6M	66.3	3.4	800	6

Table 20. 1986 Common Wheat (Cont'd)

Entry	Variety	Flour				Mixograph		Baking			
		YLD	ASH	MSC	PRO	ABS	TY	ABS	MT	LVOL	BC
<u>Sutter, 1986 (Cont'd)</u>											
628	UC 628	70.1	0.29	90.3	10.9	64.6	1H				
633	UC 633	70.6	0.34	88.6	8.5	58.7	3M				
635	UC 635	71.9	0.37	88.2	10.5	61.2	3M	61.9	2.0	839	5
638	CM16076	74.5	0.33	92.7	10.0	59.8	8M	61.5	4.0	875	4
662	BH100	70.9	0.33	89.0	10.2	61.5	2H				
664	BH202	71.5	0.35	88.6	9.5	61.5	2M				
666	BH205	69.4	0.33	87.5	10.7	60.7	4M	62.4	2.9	862	6
671	S8330501	68.8	0.35	85.9	10.6	60.9	3M				
672	P982-38	67.8	0.34	85.2	10.0	63.2	4H	64.9	3.2	785	6
680	Calgene 1551	69.4	0.40	83.9	10.3	64.9	5H	66.6	4.0	896	3
681	UC 681	69.3	0.32	87.8	11.0	61.3	2H	61.5	1.8	743	8
682	UC 682	67.9	0.30	87.5	11.1	61.0	2H				
683	UC 638	66.9	0.36	83.6	8.2	61.1	3M	64.8	2.2	862	8
684	Veery 'S'	69.1	0.35	86.3	11.6	59.3	2H	62.5	2.2	781	5
702	UC 702	68.5	0.29	88.6	10.4	61.8	2H	68.0	5.0	895	5
703	UC 703	69.8	0.31	88.9	11.8	65.0	5H	61.2	2.5	628	8
705	Seri 82	68.5	0.38	83.8	9.8	61.5	3H	66.7	4.0	832	6
715	P983-102	69.7	0.31	88.7	10.3	64.7	4H	66.9	3.9	916	3
716	P983-69	70.7	0.38	86.4	11.2	64.1	5H	67.8	5.4	866	2
717	P983-13	68.4	0.42	82.1	11.9	65.3	6H	65.5	2.5	742	8
718	NK83S203	70.0	0.42	83.4	10.6	65.3	3H	65.5	5.3	763	8
719	NK83S216	69.2	0.38	84.7	9.9	64.8	6H	63.0	3.7	791	6
720	NK83S609	71.8	0.36	88.6	9.6	61.6	8M				

\*See Agronomy Progress Report No. 180 for yield data. Quality analyses were performed by the Western Wheat Quality Laboratory, USDA, Pullman, WA.

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 rating: 1 = excellent; 2 = satisfactory; 4 = questionable/satisfactory; 6 = questionable; 8 = questionable/unsatisfactory; 9 = unsatisfactory.

Table 21. 1986 UC DavIs and Kern Common Wheat Tests, Quality Evaluations\*

Entry	Variety	Wheat			Flour			Farinograph			Bakers Bread		Family Bread			
		PRO	MO	TW	YLD	ASH	PRO	ABS	ARR	PEAK	STA	MTI	LVOL	DC	LVOL	DC
<b>Kern, 1986</b>																
20	Anza	12.3	9.2	64.2	69.1	.419	11.1	69.7	2.0	2.5	2.5	100	2400	W	2200	W
112	Yecora Rojo	13.9	8.9	64.1	70.6	.486	12.4	67.6	2.0	6.0	9.0	35	2750	S	-	-
221	Phoenix	12.5	9.1	64.1	66.9	.440	10.9	66.8	2.0	3.5	5.5	50	2550	W	2300	M
353	Yolo	11.3	8.7	63.5	71.0	.504	9.9	64.0	1.5	2.5	2.5	90	-	-	2250	W
415	Klasic	13.6	9.2	64.8	71.5	.371	11.9	64.0	1.5	5.5	11.0	20	2600	S	-	-
521	Westbred 911	13.4	9.1	62.7	63.6	.518	11.7	71.5	2.0	6.0	12.0	30	2600	S	2400	M
538	Probrand 775	12.6	9.2	62.8	67.5	.477	10.8	65.3	2.5	4.5	6.5	40	2500	M	2400	M
544	TadInfa	11.5	9.0	64.6	70.8	.391	9.7	64.0	1.0	2.5	3.5	100	-	-	2250	W
619	S8330014	13.5	9.4	64.2	68.4	.400	12.1	71.7	2.5	5.0	8.5	45	2600	S	-	-
620	S8330022	13.1	9.2	64.2	67.3	.438	11.7	69.0	2.0	5.0	8.0	40	2650	S	2300	M
628	UC 628	12.5	9.0	64.2	65.9	.495	11.1	68.5	2.0	3.5	5.0	50	2600	W	2300	W
633	UC 633	11.5	9.0	63.4	69.6	.446	9.9	64.3	1.5	2.5	3.0	110	-	-	2350	M
635	UC 635	13.6	9.1	64.8	65.5	.455	11.9	64.6	2.5	4.0	5.5	50	2550	S	-	-
638	CM16076	12.7	8.8	64.1	70.4	.435	11.2	62.0	1.0	5.5	10.5	25	2550	M	2300	W
662	BH100	12.9	8.9	63.7	67.7	.423	11.2	69.6	1.5	3.5	5.0	80	2550	M	2350	W
664	BH202	12.3	8.8	63.8	69.3	.457	10.8	70.8	2.0	3.0	3.5	90	-	-	2200	W
666	BH205	12.5	9.8	62.3	65.0	.437	11.1	66.0	2.0	4.0	6.5	50	2550	W	2300	M
671	S8330501	12.9	9.7	62.9	62.4	.511	11.7	69.6	2.5	4.0	4.0	80	2550	M	2450	W
672	P982-38	12.6	9.7	63.2	62.0	.486	11.3	70.5	1.5	3.5	9.0	20	2450	M	2400	M
680	Calgene 1551	14.1	9.4	60.6	65.2	.543	11.6	67.9	1.5	6.0	9.5	30	2550	S	-	-
681	UC 681	12.5	9.6	63.7	63.4	.476	11.2	67.6	2.0	3.5	5.5	50	2350	W	2200	M
682	UC 682	12.3	9.6	64.5	65.3	.473	11.2	70.5	2.0	4.0	5.5	60	-	-	2500	M
683	UC 683	13.5	9.7	63.9	68.0	.509	11.2	69.4	2.0	3.5	3.5	90	2600	W	2400	M
684	Veery 'S'	13.3	9.6	63.9	62.6	.488	12.4	72.1	3.0	4.5	4.5	80	2600	S	2350	W
702	UC 702	14.3	9.6	64.6	68.1	.488	12.9	69.1	2.0	3.0	3.0	100	2750	W	-	-
703	UC 703	12.5	9.3	65.8	67.0	.430	11.4	67.9	2.0	6.0	10.0	25	2600	W	2400	S
705	Serl 82	12.1	9.1	62.9	65.6	.554	10.8	69.0	2.0	4.0	4.0	95	-	-	2500	M
715	P983-102	12.4	9.6	65.3	60.4	.402	11.8	70.4	1.5	4.0	7.5	40	2550	W	2300	M
716	P983-69	14.2	8.9	64.6	69.5	.451	12.7	67.6	2.0	5.5	9.0	40	2750	S	-	-
717	P983-13	13.9	9.0	63.3	66.8	.468	12.4	67.7	2.0	6.0	10.0	20	2650	S	-	-
718	NK835203	13.0	9.2	62.1	64.8	.548	11.4	67.6	2.5	5.5	9.5	30	2750	S	2550	M
719	NK835216	13.5	9.1	64.9	68.5	.486	11.9	68.8	1.5	3.5	8.0	25	2550	S	2550	W
720	NK835609	13.0	9.3	65.1	67.6	.477	11.0	64.3	1.5	4.5	8.5	30	2550	M	2400	M
<b>UC DavIs, 1986</b>																
20	Anza	11.9	9.9	62.4	65.2	.445	9.8	66.8	1.5	2.5	2.0	110	2300	W	-	-
112	Yecora Rojo	12.9	9.9	61.7	64.0	.43	11.4	64.6	2.0	6.0	9.5	40	2925	S	-	-
221	Phoenix	11.8	9.6	59.8	64.4	.516	9.8	65.9	2.0	4.0	4.0	80	2675	W	-	-
353	Yolo	10.4	9.6	62.2	66.1	.46	8.6	64.4	2.0	3.0	3.5	80	2400	W	-	-
415	Klasic	11.9	10.0	62.5	68.7	.368	10.1	61.9	1.5	3.0	7.5	30	3050	S	-	-
521	Westbred 911	12.6	9.5	62.6	62.8	.455	9.7	70.3	1.5	5.0	7.0	60	3000	M	-	-
538	Probrand 775	13.6	9.8	55.7	64.9	.475	11.5	64.2	2.5	6.5	11.0	40	3000	S	-	-

Table 21. 1986 Common Wheat Tests (Cont'd)

Entry	Variety	Wheat			Flour			Farinograph			Bakers Bread		Family Bread			
		PRO	MO	TW	YLD	ASH	PRO	ABS	ARR	PEAK	STA	MTI	LVOL	DC	LVOL	DC
<u>UC Dav. Is. 1986 (Cont'd)</u>																
544	TadInla	11.4	10.0	64.4	69.3	.365	9.2	64.5	1.5	2.5	3.0	130	2550	W	-	-
619	S8330014	12.4	9.6	62.3	68.2	.38	10.7	69.3	2.5	7.5	11.0	35	3000	S	-	-
620	S8330022	12.1	9.9	61.4	65.3	.445	10.1	67.8	1.5	5.0	7.5	60	2850	W	-	-
628	UC 628	11.7	9.8	63.6	68.1	.453	9.4	64.8	1.5	3.0	4.0	100	2725	W	-	-
633	UC 633	11.4	9.7	61.2	66.0	.466	8.9	63.7	1.5	3.5	4.0	80	2500	W	-	-
635	UC 635	12.1	9.8	61.1	67.5	.441	10.3	62.5	2.0	3.5	4.0	100	2700	W	-	-
638	CMI 6076	12.5	9.8	61.8	68.9	.405	10.6	60.2	1.5	6.5	12.5	25	2850	M	-	-
662	BH100	11.6	9.7	63.4	66.1	.416	9.6	69.0	2.0	4.0	4.0	60	2450	W	-	-
664	BH202	11.9	9.8	63.6	67.3	.421	9.3	70.0	1.5	2.5	3.0	120	2450	W	-	-
666	BH205	13.6	9.2	62.6	68.1	.406	11.4	63.3	3.0	5.5	7.0	40	3000	M	-	-
671	S8330501	12.1	8.8	62.7	65.7	.436	10.0	67.9	1.5	4.0	5.0	70	2500	W	-	-
672	P982-38	11.4	8.9	62.9	62.6	.541	9.5	71.0	1.0	3.0	5.5	70	2550	W	-	-
680	Calgene 1551	13.7	9.0	59.5	64.1	.58	11.1	68.5	2.0	6.5	10.5	40	3050	M	-	-
681	UC 681	12.3	8.9	64.2	64.4	.42	10.4	68.8	1.5	4.0	5.0	100	2700	W	-	-
682	UC 682	12.8	9.2	64.4	63.4	.411	10.2	68.4	2.0	4.5	6.0	80	2700	W	-	-
683	UC 683	13.0	9.0	63.2	59.9	.49	9.1	71.3	1.5	2.5	4.0	90	2350	W	-	-
684	Veery 'S'	13.0	9.5	63.0	65.2	.48	10.6	69.6	2.0	4.5	5.0	80	2625	W	-	-
702	UC 702	13.8	9.2	61.9	65.5	.531	11.3	67.0	3.0	4.5	5.0	70	2675	W	-	-
703	UC 703	13.3	9.0	64.0	65.0	.428	11.4	67.5	2.0	6.5	10.5	45	2875	M	-	-
705	Ser 1 82	11.0	8.9	61.0	63.9	.523	9.3	67.9	1.5	2.5	4.5	80	2500	W	-	-
715	P983-102	12.8	9.2	63.4	65.9	.406	10.2	68.8	1.5	6.0	8.5	60	2850	M	-	-
716	P983-69	12.4	9.4	62.3	65.6	.453	10.8	66.1	2.0	6.5	11.0	20	2850	M	-	-
717	P983-13	12.3	9.1	58.0	64.6	.581	10.8	65.3	2.5	8.0	14.5	20	2900	S	-	-
718	NK83S203	11.6	9.3	62.9	67.6	.486	10.1	68.8	2.0	4.5	7.0	80	2725	W	-	-
719	NK83S216	12.2	8.8	63.0	64.9	.511	10.8	70.1	1.5	2.5	3.0	60	2725	W	-	-
720	NK83S609	11.3	9.2	64.2	66.9	.445	10.0	67.5	1.5	2.5	3.0	50	2700	W	-	-

\*See Agronomy Progress Report No. 180 for yield data. Quality analyses were performed by General Mills, Inc., Vallejo (UC Dav. Is. samples) and Los Angeles (Kern Co. samples).

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.

Table 22. 1986 Kings Common Wheat Test, Quality Analysis\*

Entry	Variety	Wheat			Flour			Farinograph			Bread bake	
		M	TWT	PRO	ASH	PRO	YLD	ABS	PK	MTI	VOL	RATING
20	Anza	8.5	64.6	12.3	.41	10.6	71.2	67.0	3.0	80	2350	Poor
112	Yecora Rojo	8.5	63.7	14.0	.38	12.7	71.9	66.2	9.0	40	2875	Fair <sup>+</sup>
221	Phoenix	8.7	64.8	12.0	.41	10.7	71.2	67.2	4.5	60	2600	Poor
353	Yolo	7.8	62.7	12.2	.40	11.0	70.3	67.1	3.5	80	2750	Fair <sup>-</sup>
415	Klasic	7.9	64.8	14.2	.35	12.2	72.4	62.8	11.5	30	2775	Fair
521	Westbred 911	7.9	63.0	13.2	.39	11.6	68.5	70.7	6.0	60	2800	Fair <sup>-</sup>
538	Probrand 775	7.9	61.0	13.4	.39	11.9	73.3	65.6	8.0	30	2800	Good
544	TadInia	8.3	63.4	12.7	.42	10.5	71.0	64.4	3.5	70	2650	Poor
619	S8330014	8.5	62.5	13.1	.42	12.4	72.9	69.3	9.5	40	2800	Good
620	S8330022	7.9	63.8	13.5	.35	11.6	70.0	67.5	8.0	30	2550	Good
628	UC 628	8.3	63.3	12.3	.43	11.0	71.0	68.4	5.0	60	2800	Fair
633	UC 633	8.1	63.4	12.4	.43	11.2	73.8	66.1	4.0	80	2850	Poor
635	UC 635	8.4	63.7	13.4	.41	11.6	72.0	64.9	4.0	55	2850	Good <sup>-</sup>
638	CM16076	8.1	62.7	14.0	.43	12.2	72.9	63.1	8.5	35	3025	Good <sup>+</sup>
662	BH100	8.4	62.4	12.8	.44	11.1	72.0	67.8	4.0	55	2775	Fair <sup>-</sup>
664	BH202	8.6	62.6	13.0	.43	11.1	72.3	67.6	3.0	75	2775	Poor
666	BH205	8.4	61.4	12.8	.50	11.4	69.5	62.4	5.0	30	2950	Good <sup>-</sup>
671	S8330501	8.4	62.7	13.8	.43	11.9	69.1	67.8	5.0	70	2450	Poor
672	P982-38	8.2	61.7	14.2	.42	12.0	70.1	71.6	7.5	65	2750	Fair <sup>-</sup>
680	Calgene 1551	8.0	58.6	14.8	.55	13.0	71.1	68.5	10.5	20	2500	Fair
681	UC 681	9.0	63.9	13.4	.42	11.5	68.2	66.7	5.0	50	2700	Good
682	UC 682	9.2	64.2	13.8	.39	11.5	69.6	68.0	5.5	60	2600	Good <sup>-</sup>
683	UC 583	9.0	63.4	12.6	.46	10.8	66.3	69.1	3.0	100	2675	Fair
684	Veery 'S'	9.0	63.2	13.4	.60	11.9	69.2	68.8	5.5	65	2700	Fair
702	UC 702	9.1	64.2	14.6	.42	12.6	71.3	68.4	3.5	70	2775	Good <sup>-</sup>
703	UC 703	8.8	64.7	14.4	.44	12.8	71.2	65.1	10.0	20	2700	Good
705	Serl 82	8.6	62.5	12.9	.49	11.6	71.0	68.1	6.5	45	2625	Fair
715	P983-102	8.9	64.7	13.2	.39	11.5	66.9	69.3	6.5	50	2700	Fair
716	P983-69	9.1	63.1	14.5	.39	13.1	73.2	66.0	9.5	20	2700	Good
717	P983-13	9.2	62.5	14.9	.40	13.0	70.6	66.6	9.5	30	2725	Good
718	NK83S203	9.7	61.5	13.2	.45	12.1	70.4	66.9	7.0	25	2700	Good <sup>+</sup>
719	NK83S216	9.5	63.8	13.3	.40	11.8	68.4	66.2	2.0	25	2525	Fair
720	NK83S609	9.8	62.0	13.6	.42	11.7	71.3	63.8	6.5	25	2800	Good

\*See Agronomy Progress Report No. 180 for yield data. Quality analysis was performed by Con-Agra Flour Milling Company, Omaha, Nebraska

Wheat: M = moisture percentage; TWT = test weight (lbs/bu); PRO = protein percentage (12% moisture basis); Flour: ASH = flour ash percentage; PRO = protein percentage; YLD = % extraction; Farinograph: ABS = water absorption percentage; PD = peak (min.); MTI = mixing tolerance index; Bread: VOL = loaf volume (cc).

Table 23. 1987 UC Davis Durum Wheat Test

Entry	Yield (lb/a)	Lodging at harvest	Stripe rust	Septoria	Plant height (in)	Days to heading after 3/1	Days to maturity after 3/1	Test weight (lbs/bu)	Black point	Yellow-berry	Thousand kernel weight (grams)
112 Yecora Rojo (HRS)	6950 (26)	3.3	1.0	1.5	29	42	83	62.6	1.0	1.0	41.8
169 Mexicall	7320 (19)	6.3	1.0	1.0	37	45	92	62.3	1.0	4.5	50.8
410 Aldura	7510 (11)	1.3	1.0	1.0	31	52	96	63.0	3.0	1.0	46.9
496 Yavaros	7560 ( 8)	2.3	1.0	1.0	35	49	96	64.7	1.5	1.5	51.5
522 Westbred 881	6170 (30)	1.5	1.5	1.0	32	48	96	61.7	2.0	1.0	53.2
606 Frigate 'S'	7460 (14)	2.8	1.0	1.0	35	50	96	64.1	1.5	1.5	45.3
640 UC 640	7230 (22)	6.0	1.0	1.0	33	49	96	63.3	1.0	2.0	51.8
647 Stiffball 4	7350 (18)	3.8	1.0	1.0	35	49	84	63.7	1.5	1.0	52.8
674 Westbred Turbo	6230 (29)	4.3	1.0	1.0	35	52	96	63.6	1.0	1.0	57.2
675 PH 883-2	6840 (27)	5.8	1.0	1.0	36	43	86	62.8	1.0	1.5	47.8
676 Imperial	7480 (13)	3.5	1.0	1.0	39	50	96	61.6	1.0	1.0	54.5
686 CD 25126	7680 ( 5)	1.5	1.0	1.0	32	52	96	65.4	1.5	1.5	43.5
706 Maha 'S'	7500 (12)	2.3	1.0	1.0	35	49	96	64.1	1.0	1.5	46.0
707 UC 707	7080 (24)	3.3	1.0	1.0	31	49	92	63.2	1.0	1.5	40.8
708 UC 708	7240 (21)	6.3	1.3	1.0	34	49	96	63.1	1.0	1.5	46.6
709 UC 709	7710 ( 4)	2.5	1.0	1.0	34	48	96	63.3	1.0	1.0	40.3
710 UC 710	7400 (16)	1.8	1.0	1.0	30	45	91	64.3	1.0	1.0	47.2
711 UC 711	7440 (15)	2.8	1.0	1.3	33	45	90	63.7	1.5	2.0	46.1
712 UC 712	7560 ( 7)	2.5	1.0	1.0	38	46	91	63.0	1.0	1.0	50.8
713 UC 713	6670 (28)	6.0	1.0	1.0	35	46	96	63.7	1.0	1.0	45.7
714 Altar 84	8100 ( 1)	6.0	1.0	1.0	37	49	84	64.6	1.5	2.0	43.1
721 PH 884-32	7650 ( 6)	1.0	1.0	1.0	30	52	96	63.1	2.0	2.0	42.2
738 UC 738	6970 (25)	4.8	1.3	1.0	37	45	93	64.7	1.0	1.0	45.1
739 UC 739	7160 (23)	2.5	1.0	1.0	34	47	96	64.5	2.0	1.0	42.7
740 UC 740	7390 (17)	5.0	1.0	1.0	34	46	87	64.2	1.0	1.5	45.5
741 UC 741	7520 (10)	3.5	1.3	1.0	33	43	84	64.7	1.5	1.0	51.6
742 UC 742	7550 ( 9)	3.8	1.0	1.0	37	50	96	63.8	1.0	2.0	49.3
743 UC 743	7960 ( 3)	3.0	1.3	1.0	35	47	96	64.7	1.0	1.5	48.0
746 PH 884-57	8060 ( 2)	4.0	1.0	1.0	34	47	96	63.1	1.0	5.5	54.0
747 PH 884-11	7290 (20)	2.0	1.3	1.0	35	49	96	62.2	1.0	1.0	46.3
Mean	7330	3.5	1.1	1.0	34	48	93	63.6	1.3	1.6	47.6
CV	5.9	31.0	25.2	13.5	3.5			0.5	23.7	37.4	3.7
LSD (.05)	610	1.5	NS	0.2	2			0.7	0.6	1.2	3.6

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, and Powdery mildew.  
 Numbers in parentheses indicate relative rank in column.

Table 24. 1987 Sacramento-San Joaquin Delta Durum Wheat Test

Entry	Yield (lb/a)	Lodging at harvest	Sectoria	Powdery mildew	Test weight (lbs/bu)	Plant height (in)	Black point	Thousand kernel weight (grams)
112 Yecora Rojo (HRS)	6730 (30)	1.0	6.5	1.3	62.6	36	1.0	43.9
169 Mexicali	8140 (20)	3.5	1.0	1.0	62.6	42	1.0	58.7
410 Aldura	8990 (3)	1.0	1.0	1.0	62.4	35	2.5	47.6
496 Yaveros	8370 (16)	3.3	1.0	1.0	64.7	40	1.5	53.3
522 Westbred 881	7730 (24)	1.0	1.0	1.3	62.1	41	1.0	58.8
606 Frigate 'S'	8450 (14)	1.3	1.0	1.3	63.7	39	1.5	49.5
640 UC 640	8160 (19)	3.5	1.0	1.3	62.4	43	1.0	55.8
647 Stifftail 4	7660 (25)	5.3	1.0	1.3	63.7	39	2.0	55.5
674 Westbred Turbo	9280 (1)	3.8	1.0	1.3	63.4	43	1.0	54.2
675 PH 883-2	8060 (21)	1.5	1.0	1.0	63.6	41	1.0	54.3
676 Imperial	8670 (8)	1.3	1.0	1.0	62.3	43	1.0	57.9
686 OD 25126	7500 (28)	1.0	1.3	2.0	64.5	40	2.5	44.6
706 Maha 'S'	8480 (12)	1.0	1.0	1.0	63.5	40	2.0	50.7
707 UC 707	7430 (29)	1.0	1.0	4.3	61.3	35	2.0	41.6
708 UC 708	8680 (7)	2.0	1.0	1.3	63.3	39	1.0	51.0
709 UC 709	8450 (13)	1.0	1.0	1.0	63.0	39	1.0	44.7
710 UC 710	7780 (23)	1.0	1.0	1.0	63.1	36	1.0	49.2
711 UC 711	8590 (10)	1.0	1.3	1.0	63.5	37	1.0	49.1
712 UC 712	8640 (9)	1.0	1.0	3.5	62.9	41	1.0	55.6
713 UC 713	8770 (6)	3.0	1.0	1.0	63.5	41	1.0	50.5
714 Altar 84	8510 (11)	4.8	1.0	1.0	63.9	42	1.5	48.4
721 PH 884-32	8260 (17)	1.3	1.0	1.0	63.0	36	2.5	46.0
738 UC 738	7510 (26)	1.0	1.3	1.3	63.7	39	1.5	47.8
739 UC 739	7510 (27)	1.0	1.0	1.0	64.8	37	2.5	50.8
740 UC 740	8040 (22)	1.0	1.0	1.0	64.1	40	1.0	48.3
741 UC 741	8250 (18)	1.0	1.0	1.0	64.1	39	1.0	56.8
742 UC 742	8870 (4)	1.8	1.0	1.0	63.0	46	1.0	52.3
743 UC 743	8380 (15)	1.0	1.0	2.5	64.5	43	1.0	56.0
746 PH 884-57	9260 (2)	2.0	1.0	1.0	62.6	39	1.0	56.4
747 PH 884-11	8810 (5)	1.0	1.0	1.0	62.5	41	1.5	51.5
Mean	8270	1.8	1.2	1.3	63.3	40	1.4	51.4
CV	4.4	40.5	15.9	31.9	0.4	3.6	28.4	3.5
LSD (.05)	510	1.0	0.3	0.6	0.5	3	0.8	3.7

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: BYDV, leaf rust, and stripe rust.

Numbers in parentheses indicate relative rank in column.



Table 25. 1987 Kings Durum Wheat Test

Entry	Yield (lb/a)	Stripe rust	Plant height (in)	Test weight (lbs/bu)	Yellow- berry	Thousand kernel weight (grams)
112 Yecora Rojo (HRS)	5990 (26)	1.0	28	62.2	1.0	41.4
169 Mexicali	7100 ( 3)	1.0	38	61.7	6.5	47.7
410 Aldura	6100 (25)	1.0	33	63.7	1.0	46.5
496 Yavaros	6650 (19)	1.0	36	64.4	4.0	49.5
522 Westbred 881	5170 (30)	1.3	35	62.0	1.0	51.3
606 Frigate 'S'	6620 (20)	1.0	37	64.3	4.0	45.3
640 UC 640	7190 ( 2)	1.0	39	62.8	2.5	50.6
647 Stiff tall 4	6970 ( 6)	1.0	37	63.1	4.5	49.8
674 Westbred Turbo	5380 (29)	1.0	38	62.6	1.0	54.6
675 PH 883-2	6590 (21)	1.0	39	62.6	1.5	42.9
676 Imperial	5810 (28)	1.0	40	62.3	1.0	54.8
686 CD 25126	6480 (22)	1.0	33	65.3	2.0	42.6
706 Waha 'S'	6780 (12)	1.0	37	63.9	3.5	45.2
707 UC 707	6970 ( 7)	1.0	30	63.1	1.0	40.4
708 UC 708	6760 (13)	1.0	35	63.1	4.5	42.0
709 UC 709	6810 ( 9)	1.0	36	63.5	2.5	42.9
710 UC 710	6810 (10)	1.0	36	63.5	2.0	39.7
711 UC 711	6920 ( 8)	1.3	33	62.7	3.5	41.3
712 UC 712	6800 (11)	1.0	38	63.3	5.0	49.0
713 UC 713	7030 ( 4)	1.0	37	63.8	3.0	45.3
714 Altar 84	7260 ( 1)	1.0	38	63.8	7.0	43.5
721 PH 884-32	6230 (24)	1.0	31	62.3	3.5	39.1
738 UC 738	6480 (23)	1.0	34	64.5	3.0	40.9
739 UC 739	5940 (27)	1.3	33	64.7	3.0	39.4
740 UC 740	6740 (14)	1.0	37	63.5	1.0	40.8
741 UC 741	6720 (17)	1.3	34	64.1	2.5	42.6
742 UC 742	7000 ( 5)	1.0	38	63.8	4.5	46.6
743 UC 743	6710 (18)	1.0	39	64.4	3.5	47.5
746 PH 884-57	6740 (16)	1.0	37	62.0	8.0	52.6
747 PH 884-11	6740 (15)	1.0	37	62.5	2.0	45.0
Mean	6580	1.0	36	63.3	3.1	45.4
CV	4.8	17.8	3.8	0.8	29.5	2.8
LSD (.05)	440	NS	3	1.0	1.9	2.6

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

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

Numbers in parentheses indicate relative rank in column.

Table 26. 1987 Imperial Durum Wheat Test

Entry	Yield (lb/a)	Days to heading	Days to maturity	Plant height (in)	Lodging at harvest	Shatter	Test weight (lbs/bu)	Black point	Thousand kernel weight (grams)
112 Yecora Rojo (HRS)	8560 (21)	94	137	34	1.0	2.0	64.0	1.0	45.3
169 Mexicali	8590 (14)	95	142	39	6.8	1.3	63.0	1.0	52.5
410 Aldura	9220 ( 5)	100	145	35	1.0	1.3	63.0	1.5	45.8
496 Yavaros	9720 ( 1)	97	143	38	2.8	1.3	65.0	1.0	54.0
522 Westbred 881	6570 (30)	101	146	33	1.0	1.3	61.5	1.5	57.5
606 Frigate 'S'	8540 (15)	100	144	35	1.3	1.8	63.5	1.0	45.8
640 UC 640	8510 (16)	99	142	37	5.5	1.5	63.5	1.0	55.3
647 Stiffball 4	9020 ( 9)	103	144	38	3.0	1.0	64.5	1.0	55.4
674 Westbred Turbo	7990 (27)	105	149	36	1.0	1.0	62.5	2.0	53.3
675 PH 883-2	8290 (23)	95	142	37	5.5	1.5	63.0	1.0	45.0
676 Imperial	7650 (29)	102	144	36	1.0	1.0	62.0	1.0	53.5
686 CD 25126	9370 ( 4)	101	145	34	2.3	1.3	64.0	1.5	40.3
705 Maha 'S'	8670 (13)	100	142	35	1.0	1.3	62.5	1.0	42.9
707 UC 707	7910 (28)	99	141	33	3.0	1.0	63.0	1.0	44.3
708 UC 708	8000 (26)	96	142	36	6.0	2.0	62.5	1.0	45.2
709 UC 709	8770 (11)	98	141	37	1.3	1.3	62.5	1.0	44.0
710 UC 710	8740 (12)	93	139	34	1.0	2.3	64.0	1.0	43.4
711 UC 711	8360 (22)	95	139	35	1.3	2.0	64.0	1.0	46.5
712 UC 712	9130 ( 6)	97	141	37	3.8	2.0	63.0	1.0	55.8
713 UC 713	9010 (10)	97	142	36	8.0	1.8	64.0	1.5	48.8
714 Altar 84	9460 ( 3)	99	142	39	7.5	1.3	65.0	1.0	45.2
721 PH 884-32	8500 (17)	101	146	33	1.0	1.0	61.5	1.0	44.3
738 UC 738	8200 (25)	95	140	37	1.3	2.0	64.5	1.0	44.8
739 UC 739	8450 (18)	98	143	34	1.0	1.0	65.0	1.5	45.0
740 UC 740	8390 (19)	96	140	36	1.3	1.8	64.0	1.5	47.4
741 UC 741	8260 (24)	94	141	37	1.0	2.0	64.5	1.0	50.7
742 UC 742	9080 ( 8)	98	141	37	2.8	1.8	63.5	1.0	48.0
743 UC 743	9700 ( 2)	97	141	37	1.0	1.5	65.0	1.0	50.2
746 PH 884-57	8380 (20)	92	140	35	3.0	1.3	63.0	1.0	52.3
747 PH 884-11	9130 ( 7)	100	147	36	1.0	1.3	61.5	1.0	46.5
Mean	8600	98	142	36	2.6	1.5	63.4	1.1	48.3
CV	8.9	2.7	1.9	5.4	70.1	39.8	1.0	28.1	3.9
LSD (.05)	1080	4	4	3	2.6	0.8	1.3	NS	3.9

Rating scale for diseases (area of flag-1 leaf affected), lodging, 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%.

Numbers in parentheses indicate relative rank in column.

Table 27. 1987 and 1985-87 Durum Wheat Yield Summary (lb/a)

Entry	1987 4 Loc	1986-87 8 Loc/Yr	1985-87 11 Loc/Yr
112 Yecora Rojo (HRS)	7010 (29)	6710 (21)	6910 (11)
169 Mexicali	7790 (13)	7420 (11)	7460 ( 7)
410 Aldura	7950 ( 8)	7540 ( 6)	7750 ( 3)
496 Yavaros	8070 ( 5)	7790 ( 2)	7660 ( 5)
522 Westbred 881	6410 (30)	6570 (22)	6800 (12)
606 Frigate 'S'	7770 (15)	7440 ( 8)	7740 ( 4)
640 UC 640	7770 (14)	6880 (20)	7240 ( 9)
647 Stifftail 4	7750 (17)	7300 (14)	7580 ( 6)
674 Westbred Turbo	7220 (28)	7350 (13)	8000 ( 1)
675 PH 883-2	7450 (23)	6920 (19)	7000 (10)
676 Imperial	7400 (24)	7190 (16)	7340 ( 8)
686 CD 25126	7760 (16)	7600 ( 4)	7890 ( 2)
706 Waha 'S'	7860 (11)	7620 ( 3)	
1 <sup>m</sup> 7 UC 707	7350 (25)	7160 (18)	
708 UC 708	7670 (20)	7190 (17)	
709 UC 709	7940 ( 9)	7390 (12)	
710 UC 710	7680 (19)	7210 (15)	
711 UC 711	7830 (12)	7440 (10)	
712 UC 712	8030 ( 6)	7520 ( 7)	
713 UC 713	7870 (10)	7440 ( 9)	
714 Altar 84	8330 ( 1)	8140 ( 1)	
721 PH 884-32	7660 (21)	7580 ( 5)	
738 UC 738	7290 (26)		
739 UC 739	7260 (27)		
740 UC 740	7640 (22)		
741 UC 741	7690 (18)		
742 UC 742	8120 ( 3)		
743 UC 743	8190 ( 2)		
746 PH 884-57	8110 ( 4)		
747 PH 884-11	7990 ( 7)		
Mean	7700	7340	7450
CV	6.5	7.0	7.2
LSD (.05)	350	270	220

Numbers in parentheses indicate relative rank in column.

Table 28. Protein Percentages and Sedimentation Values for Entries in 1987 Common Wheat Tests.

Entry	Butte		Sutter		UC Davis		Sac-SJ Delta		Kings		Kern		Mean	
	PRO	SED	PRO	SED	PRO	SED	PRO	SED	PRO	SED	PRO	SED	PRO	SED
20 Anza	12.4	40	11.0	52	12.1	53	12.4	54	12.6	54	11.8	54	12.0	44
112 Yecora Rojo	13.5	111	12.9	92	14.6	107	14.7	115	14.1	112	14.3	114	14.0	108
221 Phoenix	12.5	57	11.4	68	13.1	68	13.2	75	12.0	92	14.1	85	12.7	74
353 Yolo	11.8	56	11.2	56	11.8	65	12.5	72	12.5	72	13.2	67	12.7	65
415 Klasic	12.6	114	11.2	94	13.3	100	13.0	115	12.7	113	14.3	114	12.8	108
521 Westbred 911	13.0	111	12.1	50	13.7	89	13.3	110	13.2	104	13.1	110	13.1	96
538 Probrand 775	12.6	93	12.7	81	13.9	98	14.1	107	13.0	109	13.9	97	13.4	98
544 Tadinia	12.4	77	11.7	54	12.5	57	13.1	72	12.7	81	13.4	-	12.6	-
620 S8330022	12.3	109	12.5	81	14.1	82	13.5	98	12.7	109	13.4	106	13.1	98
628 UC 628	12.7	70	12.1	82	13.9	71	13.4	80	12.2	95	13.0	101	12.9	83
638 CM 16076	12.0	102	11.0	94	12.6	102	13.7	111	12.7	112	13.9	108	12.6	105
671 S8330501	12.7	73	12.5	65	13.0	70	14.6	82	12.4	87	14.3	84	13.2	77
672 PH 982-38	13.0	106	12.6	75	13.2	89	13.5	109	13.4	102	13.9	110	13.3	98
679 Tammy	14.6	108	11.5	90	15.4	99	15.4	103	14.3	108	13.9	102	14.2	102
683 UC 683	11.1	46	10.2	63	12.5	72	13.0	72	11.8	72	13.5	62	12.0	64
702 UC 702	13.5	112	12.5	81	14.1	103	14.1	117	13.4	110	15.8	106	13.9	105
703 UC 703	13.7	78	11.8	65	14.1	69	14.8	87	13.0	76	15.7	95	13.8	78
705 Ser 1 82	11.6	68	11.3	65	12.7	66	13.3	72	11.8	78	15.0	81	12.6	72
716 PH 983-69	13.0	112	13.3	93	13.8	102	15.0	110	11.6	114	15.0	115	13.6	108
717 PH 983-13	13.7	105	12.7	103	13.7	95	14.8	113	11.6	107	15.6	111	13.7	106
733 BH 122	12.2	59	12.1	60	13.7	67	13.0	63	12.7	72	14.6	72	13.0	66
734 NK 85S8607	13.0	101	11.4	80	12.9	98	12.9	103	14.1	111	14.6	109	13.2	100
735 NK 85S8608	12.2	106	12.7	88	12.5	94	14.1	97	12.5	105	14.7	100	13.1	98
736 NK 85S412	13.0	97	12.5	76	14.1	82	13.3	89	11.8	91	13.9	93	13.1	88
737 NK 84S8268	13.2	101	13.1	85	12.9	94	14.3	97	13.1	110	13.9	108	13.4	99
744 DA 984-145	13.0	82	11.8	75	12.9	76	13.5	76	13.2	88	14.1	83	13.1	80
745 PH 982-163R	11.1	101	11.6	79	13.1	92	13.9	98	12.9	104	13.2	108	12.6	97
748 S8630004	11.8	76	10.8	68	13.0	76	13.0	70	12.0	78	13.4	79	12.3	74
749 UC 749	13.4	62	11.5	71	14.1	75	14.2	72	12.6	78	13.5	72	13.2	72
750 CM 28339	13.0	76	11.2	67	12.5	70	13.7	72	12.2	83	13.7	76	12.7	74
Mean	12.7	87	11.9	75	13.3	83	13.7	90	12.4	94	14.0	-	13.1	-

\*Grain Protein Percentage, 12% moisture basis

\*\*SDS - Sedimentation (mm)

Table 29. Protein Percentages and Sedimentation Values for Entries in 1987 Durum Wheat Tests.

Entry	UC Davis		Sac Delta		Kings		Imperial		Mean	
	PRO*	SED**	PRO	SED	PRO	SED	PRO	SED	PRO	SED
112 Yecora Rojo (HRS)	13.5	111	14.3	111	14.1	97	15.0	94	14.2	103
169 Mexicali	11.9	46	12.7	57	12.1	47	13.9	56	12.6	52
410 Aldura	12.0	23	13.7	23	12.9	21	14.8	18	13.4	21
496 Yavaros	11.7	29	13.5	36	11.8	28	14.1	27	12.8	30
522 Westbred 881	13.3	63	15.5	86	14.1	65	16.0	72	14.7	72
606 Frigate 'S'	12.7	20	14.9	23	11.8	23	16.4	23	14.0	22
640 UC 640	11.5	15	13.9	15	11.4	14	15.5	15	13.1	15
647 Stifftail 4	12.7	46	14.3	57	12.0	59	14.6	43	13.4	51
674 Westbred Turbo	12.7	39	15.4	52	12.5	50	15.4	46	14.0	47
675 PH 883-2	12.3	58	15.2	85	13.1	72	16.0	80	14.2	74
676 Imperial	14.7	22	15.0	40	12.9	32	16.7	32	14.8	32
686 CD 25126	12.7	33	13.3	63	12.3	31	15.4	62	13.4	47
706 Waha 'S'	13.3	21	13.9	17	12.3	20	15.4	15	13.7	18
707 UC 707	12.7	52	13.3	50	12.7	62	14.8	52	10.1	54
708 UC 708	12.7	15	13.6	15	12.7	15	15.4	15	13.6	15
709 UC 709	13.1	37	14.0	34	12.5	33	14.6	42	13.6	36
710 UC 710	13.1	15	15.2	18	12.5	21	15.8	15	14.2	17
711 UC 711	12.3	15	13.5	14	12.3	15	14.1	15	13.0	15
712 UC 712	13.6	40	13.6	32	13.0	47	16.3	26	14.1	36
713 UC 713	12.3	29	13.1	24	12.5	32	14.7	40	13.2	32
714 Altar 84	12.5	38	12.3	29	12.1	31	14.1	33	12.8	33
721 PH 884-32	12.8	36	12.8	30	12.1	46	14.6	44	13.1	39
738 UC 738	12.7	14	14.3	15	12.5	15	15.8	15	13.8	15
739 UC 739	13.5	15	14.1	17	13.7	23	15.1	17	14.1	18
740 UC 740	12.8	20	14.1	18	12.9	25	16.3	19	14.0	20
741 UC 741	13.5	15	15.2	15	13.3	15	15.8	23	14.4	17
742 UC 742	13.1	23	14.1	20	12.9	27	15.4	35	13.9	27
743 UC 743	12.5	17	14.1	17	12.3	25	15.0	25	13.5	21
746 PH 884-57	11.5	43	12.9	36	11.1	34	13.9	35	12.4	37
747 PH 884-11	12.7	55	12.9	58	12.1	52	14.1	62	13.0	57
Mean	12.7	34	14.0	37	12.6	36	15.2	37		

\* Grain Protein percentage, 12% moisture basis

\*\* SDS - Sedimentation (mm)

Table 30. 1987 Kings Common Wheat Test, Quality Evaluation\*

Entry	Wheat			Flour		Farinograph			BAKE SCORE
	TWT	PRO	HARDNESS	ASH	YLD	ABS	PK	MTI	
20 Anza	63.1	11.2	91.8	.42	71.0	61.4	2.5	80	60
112 Yecora Rojo	61.8	12.9	91.0	.43	70.4	58.7	2-16	20	78
221 Phoenix	62.9	11.3	101.2	.39	72.1	60.7	5.0	60	77
353 Yolo	63.8	11.3	107.4	.39	72.7	60.0	3.0	60	60
415 Klasic	63.9	11.8	102.3	.37	73.2	56.7	2-12	20	81
521 Westbred 911	62.3	12.8	124.1	.44	66.7	64.0	7.0	30	73
538 Probrand 775	60.2	12.4	106.2	.47	72.0	60.7	2-15	20	79
544 Tadinla	61.1	12.4	118.3	.45	69.9	59.6	2.0	70	72
620 S8330022	62.7	12.4	112.5	.42	67.8	61.5	2-8	15	76
628 UC 628	64.0	11.6	121.0	.45	70.7	63.9	5.0	50	76
638 CM 16076	63.7	12.5	104.7	.39	73.0	56.4	2-12	15	81
671 S8330501	63.6	12.7	114.9	.43	68.1	61.0	8.0	30	75
672 PH 982-38	63.3	12.5	117.4	.42	67.6	64.8	2-8	20	73
679 Tammy	63.0	13.5	129.3	.43	70.1	65.5	7.0	30	75
683 UC 683	63.2	12.1	131.8	.45	66.6	65.5	3.5	60	72
702 UC 702	64.0	13.5	118.2	.41	67.6	58.9	2-10	20	82
703 UC 703	63.7	12.3	115.9	.42	68.0	61.3	3.0	60	65
705 Seri 82	62.0	12.0	115.7	.48	67.7	62.2	6.0	40	60
716 PH 983-69	63.0	12.4	119.0	.43	69.7	60.2	2-8	10	61
717 PH 983-13	62.8	12.1	114.8	.42	68.9	60.0	2-10	20	61
733 BH 122	62.9	11.7	104.2	.44	70.8	59.5	3	60	77
734 NK 85S8607	61.8	12.4	124.4	.43	71.2	62.4	2-10	20	74
735 NK 85S8608	60.4	12.3	123.7	.48	68.3	61.5	2-8	30	72
736 NK 85S412	62.9	11.2	116.2	.43	69.2	59.3	2.5	60	71
737 NK 84S8268	61.5	12.3	112.1	.46	70.1	60.3	2-8	20	69
744 DA 984-145	62.8	12.1	130.8	.46	65.9	69.4	7.0	50	60
745 PH 982-163R	63.7	11.9	129.4	.44	67.4	64.8	4.0	30	65
748 S8630004	63.2	11.3	127.4	.48	68.6	66.1	4.0	50	62
749 UC 749	63.6	12.0	116.2	.42	71.0	65.2	5.0	60	67
750 CM 28339	62.5	12.2	131.5	.42	67.2	65.2	5.0	50	69

\*Evaluation was performed by Con-Agra Flour Milling Co., Omaha, Nebraska.  
Wheat: TWT = test weight (lb/bu); PRO = protein percentage (12% moisture). Flour:  
ASH = flour ash percentage; YLD = % extraction. Farinograph: ABS = water absorption  
percentage; PK = peak (min); MTI = mixing tolerance Index.

Table 31. 1987 Sacramento-San Joaquin Delta, Kings and Imperial Durum Wheat Tests, Quality Evaluation

Entry	WHT PRO	FALL NO	TOT EXT	SEMO EXT	DUS	MX	SPK	SEMO PRO	VI	FIRM	RES
<b>Sacramento-San Joaquin Delta</b>											
169 Mexicali	10.7	400	75.1	58.7	85	3	43	10.2	8.0	4.51	6.9
410 Aldura	11.8	400	79.8	62.6	90	2	43	10.3	9.0	4.51	7.0
496 Yavaros	11.1	400	79.1	64.0	75	2	73	9.9	7.5	4.47	7.0
522 Westbred 881	12.5	400	76.8	58.8	100	5	73	11.4	9.5	5.94	6.5
606 Frigate 'S'	11.1	400	77.6	59.9	85	2	40	10.5	8.5	4.19	7.3
640 UC 640	11.1	400	77.2	60.9	90	1	40	9.8	9.0	3.89	7.3
647 Stiffball 4	10.7	400	77.8	59.9	75	3	53	9.4	7.5	5.08	7.2
674 Westbred Turbo	12.1	400	77.9	59.0	90	3	33	10.7	9.0	4.67	7.0
675 PH 883-2	11.9	400	78.1	60.6	100	4	47	10.9	9.5	4.86	7.0
676 Imperial	12.9	400	78.2	59.3	85	3	73	11.4	9.0	5.23	6.6
686 CD 25126	11.2	400	78.9	59.0	95	3	37	9.8	9.0	4.86	7.2
706 Waha 'S'	11.5	400	78.1	60.5	80	2	40	10.6	8.5	4.26	7.1
707 UC 707	11.5	400	78.1	58.5	75	3	40	10.2	7.5	4.97	7.5
708 UC 708	11.7	400	75.9	55.6	80	1	30	10.6	8.5	3.69	7.6
709 UC 709	11.7	400	76.5	60.7	80	2	43	10.5	8.0	4.32	7.7
710 UC 710	11.7	400	76.7	59.0	95	2	60	10.2	9.5	5.29	6.5
711 UC 711	11.7	400	76.8	60.1	105	1	73	10.3	10.0	5.14	7.2
712 UC 712	10.6	400	76.2	59.2	90	3	57	9.7	9.5	4.54	8.2
713 UC 713	11.0	400	76.3	61.9	95	3	43	10.0	9.0	4.90	7.4
714 Altar 84	10.6	400	73.7	57.6	80	2	53	10.0	8.0	4.64	7.7
721 PH 884-32	12.1	400	76.3	58.8	95	3	27	10.5	9.5	4.67	7.6
738 UC 738	11.4	400	77.7	60.7	80	1	77	10.0	8.5	4.60	7.0
739 UC 739	11.7	400	76.5	58.5	95	3	57	10.7	9.5	5.05	6.8
740 UC 740	12.5	400	77.4	60.0	100	2	40	10.9	9.5	5.42	6.6
741 UC 741	12.1	400	75.8	60.1	100	1	90	10.6	10.0	4.43	7.2
742 UC 742	11.3	400	76.7	59.9	90	3	67	10.1	9.5	5.14	6.9
743 UC 743	10.7	400	75.6	59.4	90	3	57	9.9	9.5	5.05	6.6
746 PH 884-57	9.7	400	71.6	55.6	85	2	60	9.3	8.5	4.75	7.7
747 PH 884-11	11.6	400	77.8	60.0	90	4	47	10.4	9.0	5.18	6.7
<b>Kings County</b>											
169 Mexicali	11.8	400	75.6	58.5	85	3	53	10.9	8.0	5.98	7.0
410 Aldura	12.3	400	78.5	60.0	95	2	67	11.4	9.5	5.12	6.7
496 Yavaros	12.1	400	76.2	58.4	80	3	77	10.6	8.0	5.31	7.4
522 Westbred 881	14.2	400	76.3	58.5	95	6	47	12.7	9.5	6.29	6.7
606 Frigate 'S'	13.3	400	78.4	59.9	85	2	67	12.3	9.0	5.01	6.4
640 UC 640	12.8	400	76.4	57.9	90	1	60	11.3	9.0	4.97	6.5
647 Stiffball 4	12.7	400	78.4	60.9	75	3	63	11.4	7.5	5.83	7.1
674 Westbred Turbo	12.9	400	75.3	57.9	90	2	37	11.2	8.5	5.21	6.3

Table 31. 1987 Durum Wheat Test (Cont'd)

Entry	WHT		FALL		TOT		SEMO		DUS	MX	SPK	SEMO		FIRM	RES
	PRO	NO	NO	EXT	EXT	EXT	PRO	VI							
<b>Kings County (Cont'd)</b>															
675 PH 883-2	14.1	400	400	76.4	59.0	100	8	47	12.6	9.5	6.07	6.8			
676 Imperial	14.0	400	400	75.9	56.5	85	5	47	12.8	9.5	6.26	5.9			
686 CD 25126	12.3	400	400	76.0	57.6	95	3	67	11.3	9.0	5.96	6.9			
706 Maha 'S'	13.2	400	400	78.6	61.7	85	2	60	11.9	8.5	4.51	7.2			
707 UC 707	12.4	400	400	78.5	58.7	75	4	33	11.5	7.5	6.16	6.7			
708 UC 708	13.6	386	386	76.5	58.7	80	1	57	12.3	8.0	5.16	6.0			
709 UC 709	13.5	400	400	76.9	58.3	80	2	57	11.9	8.0	5.42	6.4			
710 UC 710	14.4	400	400	74.2	56.6	95	3	67	12.5	9.5	7.04	6.4			
711 UC 711	13.1	400	400	75.3	56.6	105	1	43	11.4	10.0	5.38	6.1			
712 UC 712	13.0	379	379	76.3	57.2	95	4	37	12.0	9.5	6.22	6.3			
713 UC 713	12.2	400	400	74.9	57.3	95	3	33	11.2	9.5	5.85	6.4			
714 Altar 84	12.3	400	400	78.6	60.9	85	2	37	10.3	8.5	5.34	7.9			
721 PH 884-32	12.7	400	400	76.1	58.1	95	3	77	11.5	9.5	5.51	6.2			
738 UC 738	13.8	400	400	77.1	55.0	80	1	40	12.1	8.0	5.10	6.3			
739 UC 739	13.5	400	400	73.6	55.7	95	3	60	12.1	9.5	6.29	6.1			
740 UC 740	13.9	400	400	73.2	55.1	100	2	50	12.0	9.5	6.74	6.9			
741 UC 741	15.0	400	400	72.7	54.5	95	1	87	13.2	9.5	5.75	6.3			
742 UC 742	13.6	400	400	76.7	56.7	85	2	63	11.6	9.0	5.57	6.1			
743 UC 743	14.0	400	400	75.6	57.7	85	3	60	12.6	8.5	5.83	6.2			
746 PH 884-57	12.0	400	400	77.5	60.7	90	3	43	11.1	8.0	6.03	6.5			
747 PH 884-11	12.8	400	400	76.9	58.7	90	4	40	11.6	9.0	6.09	6.3			
<b>Imperial County</b>															
169 Mexicali	12.9	400	400	77.7	61.2	90	4	37	11.4	9.0	5.79	6.6			
410 Aldura	13.6	400	400	79.2	57.1	100	1	37	12.1	9.5	5.34	6.8			
496 Yavaros	12.7	400	400	77.6	60.5	80	3	40	11.2	8.0	5.05	6.3			
522 Westbred 881	14.9	400	400	77.0	59.4	100	6	40	13.6	9.5	6.35	6.4			
606 Frigate 'S'	14.7	400	400	78.1	61.1	90	3	33	13.4	9.0	5.55	7.1			
640 UC 640	14.1	400	400	77.6	61.5	95	1	57	12.4	9.0	4.90	6.3			
647 Stiffball 4	13.4	400	400	78.4	60.7	80	3	17	11.9	8.0	5.94	7.1			
674 Westbred Turbo	13.7	400	400	77.1	59.3	95	4	33	12.2	9.5	5.53	7.3			
675 PH 883-2	14.4	400	400	77.6	60.5	110	7	30	13.0	10.0	6.31	6.8			
676 Imperial	15.3	400	400	78.1	59.4	95	6	57	14.0	9.5	6.37	5.9			
686 CD 25126	13.3	400	400	77.5	59.7	100	4	40	11.6	9.5	5.12	6.7			
706 Maha 'S'	13.3	400	400	78.2	60.0	100	4	40	12.1	9.5	5.14	7.0			
707 UC 707	13.6	400	400	77.3	59.6	80	3	37	12.2	8.5	6.35	7.0			
708 UC 708	14.0	400	400	77.1	59.5	85	1	23	12.5	9.0	4.41	6.4			
709 UC 709	13.5	400	400	77.4	59.7	90	3	50	12.0	9.0	5.68	6.6			
710 UC 710	13.8	400	400	77.8	59.9	100	2	43	12.7	9.5	6.22	6.7			
711 UC 711	13.0	400	400	74.9	57.5	110	1	60	11.7	10.0	4.43	7.4			
712 UC 712	13.7	400	400	77.7	60.9	100	5	40	12.3	9.5	6.05	7.1			
713 UC 713	13.3	400	400	77.3	61.0	100	3	27	11.9	9.5	5.36	6.4			
714 Altar 84	12.7	400	400	79.3	61.5	90	3	30	11.5	9.0	5.53	7.8			



Table 31. 1987 Durum Wheat Test (Cont'd)

Entry	WHT		FALL NO	TOT		SEMO		DUS	MX	SPK	SEMO		VI	FIRM	RES
	PRO	NO		EXT	EXT	EXT	PRO								
<u>Imperial County (Cont'd)</u>															
721 PH 884-32	13.6	400	77.2	60.8	100	4	37	12.1	9.5	6.00	7.0				
738 UC 738	14.1	400	77.0	59.4	85	1	63	12.9	9.0	4.58	5.9				
739 UC 739	13.8	400	76.0	58.3	100	2	53	12.1	9.5	5.85	6.9				
740 UC 740	13.6	400	75.3	57.0	110	2	47	12.9	10.0	5.83	7.1				
741 UC 741	14.3	400	75.2	57.9	105	1	57	13.0	10.0	5.21	6.4				
742 UC 742	14.0	400	76.8	59.5	100	2	63	12.4	9.5	6.31	6.4				
743 UC 743	13.9	400	76.9	61.0	95	3	63	12.6	9.5	6.37	6.5				
746 PH 884-57	12.6	400	78.4	61.5	100	3	40	11.3	9.5	5.94	6.5				
747 PH 884-11	13.6	400	76.9	60.2	100	5	30	12.1	9.5	6.39	6.3				

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 32. 1987 Sutter Triticale Test

Entry	Yield (lb/a)	Lodging 5/19	Lodging at harvest	Leaf rust	Plant height (In)	Test weight (lbs/bu)	Thousand kernel weight (grams)
1 Siskiyou	5280 (19)	1.8	3.0	1.3	57	55.0	47.3
2 Beagle	6800 (14)	3.0	4.5	1.0	57	53.5	46.1
12 Juan	8060 ( 2)	2.3	4.5	1.0	57	56.7	53.3
54 UC 54	7390 ( 8)	2.0	3.5	1.0	57	59.6	45.2
56 Springfest	5760 (17)	1.0	4.5	1.0	62	56.0	45.1
57 Florico	7300 ( 9)	2.3	5.0	1.0	59	58.5	53.2
59 Nutriseed SPT 16	6750 (15)	1.0	3.8	1.0	58	58.1	45.3
60 Nutriseed SPT 18	6930 (12)	1.0	1.0	1.0	56	54.2	43.3
61 UC 61	7290 (10)	2.8	4.0	1.0	56	55.8	43.1
62 X33247-1Y	7560 ( 4)	2.5	5.0	1.0	54	58.1	48.6
63 Eronga 'S'	7430 ( 7)	3.0	4.5	1.0	59	56.0	51.5
64 Platypuss 'S'	7520 ( 5)	1.8	3.5	1.0	58	56.8	47.2
65 Faro 'S'	8470 ( 1)	1.3	2.5	1.0	57	57.6	46.1
66 Alamos 'S''	7470 ( 6)	1.0	2.0	1.0	48	57.1	37.3
67 Tesmos 'S''	6880 (13)	1.0	1.3	1.0	40	57.8	33.8
69 Trical 193-13	5340 (18)	1.3	2.3	1.0	48	54.2	39.7
70 Trical 194-4	7220 (11)	2.3	5.3	1.0	54	55.1	43.2
71 Trical 603	8050 ( 3)	1.3	3.8	1.0	50	54.6	43.8
72 Trical 449	4530 (21)	1.3	2.5	1.0	52	55.7	35.0
73 Nutriseed 7-1	5070 (20)	2.3	4.3	1.0	61	54.6	45.2
353 Yolo (wheat)	6250 (16)	1.0	1.0	1.0	39	62.3	33.9
Mean	6830	1.8	3.4	1.0	54	56.5	44.1
CV	9.5	49.4	27.7	10.8	2.6	0.8	3.6
LSD (.05)	918	1.2	1.3	NS	3	0.9	3.4

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: BYDV, stripe rust, Septoria, and Powdery mildew.

Numbers in parentheses indicate relative rank in column.

Table 33. 1987 UC Davis Triticale Test

Entry	Yield (lb/a)	Lodging 5/23	Lodging at harvest	Leaf rust	Stripe rust	Test weight (lbs/bu)	Days to heading after 3/1	Days to maturity after 3/1	Plant height (in)	Thousand kernel weight (grams)
1 Siskiyou	5340 (20)	1.5	5.8	1.3	2.5	54.4	50	96	51	45.8
2 Beagle	6810 (12)	4.8	5.8	1.0	1.0	51.5	44	86	53	41.8
12 Juan	7600 (3)	1.8	6.5	1.0	1.0	55.2	43	91	52	45.5
54 UC 54	7860 (2)	1.8	5.5	1.0	1.0	58.6	45	85	51	43.2
56 Spr Ingfest	7570 (4)	1.0	3.3	1.0	1.0	55.2	60	96	52	46.2
57 Florico	6360 (17)	1.0	6.8	1.0	1.0	57.6	45	90	52	52.9
59 Nutrlseed SPT 16	7250 (9)	1.0	6.0	1.0	1.0	57.5	44	87	49	41.5
60 Nutrlseed SPT 18	6740 (13)	1.0	6.5	1.0	1.0	54.8	45	89	51	42.4
61 UC 61	7380 (6)	1.0	6.3	1.0	1.0	56.0	43	86	46	44.8
62 X33247-1Y	6310 (18)	3.3	6.5	1.0	1.0	57.2	39	80	47	44.7
63 Eronga 'S'	7350 (8)	3.5	6.5	1.0	1.0	55.5	43	86	52	46.1
64 Platypuss 'S'	7470 (5)	2.0	6.8	1.0	1.0	55.6	45	90	51	45.1
65 Faro 'S'	7360 (7)	1.0	6.3	1.0	1.0	56.0	44	90	50	44.3
66 Alamos 'S'	6870 (11)	1.0	4.3	1.0	1.0	56.3	39	84	41	35.8
67 Tesmos 'S'	6080 (19)	1.0	5.0	1.0	1.0	57.5	39	85	37	31.4
69 Trical 193-13	6480 (16)	1.0	4.5	1.0	1.0	53.7	55	96	48	35.8
70 Trical 194-4	7130 (10)	1.5	6.5	1.0	1.0	54.6	49	96	52	39.2
71 Trical 603	8330 (1)	1.0	4.8	1.0	1.0	53.7	44	84	47	42.6
72 Trical 449	6600 (15)	1.0	1.3	1.0	1.0	56.0	55	96	48	33.7
73 Nutrlseed 7-1	4720 (21)	1.0	5.5	1.0	1.0	54.7	49	96	56	43.4
353 Yolo (wheat)	6750 (14)	1.0	2.8	2.0	1.0	62.8	52	94	36	38.3
Mean	6870	1.6	5.4	1.1	1.1	55.9	46	90	49	42.1
CV	8.0	33.6	19.5	10.3	11.8	0.7	4.8	1.7	4.0	5.6
LSD (.05)	770	0.7	1.5	0.2	0.2	0.8	5	3	4	4.9

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, Septoria, and Powdery mildew.

Numbers in parentheses indicate relative rank in column.

Table 34. 1987 Kings Triticale Test

Entry	Yield (lb/a)	Plant height (in)	Test weight (lbs/bu)	Thousand kernel weight (grams)
1 Siskiyou	4900 (17)	54	54.4	43.2
2 Beagle	6710 ( 8)	50	53.0	43.8
12 Juan	7470 ( 1)	54	55.8	44.5
54 UC 54	7120 ( 4)	54	58.9	44.0
56 Springfest	4490 (20)	55	54.0	40.9
57 Florico	6000 (12)	55	58.2	50.3
59 Nutriseed SPT 16	6370 (10)	54	56.5	41.5
60 Nutriseed SPT 18	5230 (16)	52	53.2	41.0
61 UC 61	6710 ( 9)	49	55.4	41.6
62 X33247-1Y	6940 ( 5)	49	56.8	43.1
63 Eronga 'S'	7420 ( 2)	54	55.9	48.6
64 Platypuss 'S'	6880 ( 7)	52	55.6	43.3
65 Faro 'S'	6930 ( 6)	50	56.6	43.8
66 Alamos 'S'	5420 (15)	41	54.7	34.2
67 Tesmo 'S'	5620 (14)	35	57.8	31.7
69 Trical 193-13	4880 (18)	48	51.8	33.1
70 Trical 194-4	5780 (13)	53	54.3	38.5
71 Trical 603	7190 ( 3)	49	53.9	43.5
72 Trical 449	4580 (19)	50	56.5	34.1
73 Nutriseed 7-1	4270 (21)	60	53.6	36.7
353 Yolo (wheat)	6020 (11)	36	63.0	33.2
Mean	6040	50	55.7	40.7
CV	7.2	3.7	0.7	3.7
LSD (.05)	610	4	0.8	3.2

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

Numbers in parentheses indicate relative rank in column.

Table 35. 1987 Imperial Triticale Test

Entry	Yield (lb/a)	Days to heading	Days to maturity	Plant height (in)	Lodging at harvest	Shatter	Test weight (lbs/bu)	Thousand kernel weight (grams)
1 Siskiyou	5240 (18)	101	144	53	5.3	1.5	52.0	42.5
2 Beagle	6570 (11)	98	143	52	1.5	1.3	52.0	44.9
12 Juan	7520 ( 3)	95	142	51	1.0	1.0	55.0	47.0
54 UC 54	7230 ( 8)	99	142	52	1.0	1.3	57.5	41.1
56 Springfest	3930 (21)	123	169	48	1.8	1.0	49.0	37.2
57 Florico	7240 ( 7)	97	142	54	1.0	1.3	58.0	51.8
59 Nutriseed SPT 16	7460 ( 4)	101	145	54	1.0	1.3	55.5	37.5
60 Nutriseed SPT 18	7050 ( 9)	101	145	50	1.5	1.3	54.0	39.4
61 UC 61	6420 (12)	98	142	50	1.0	1.3	53.0	40.7
62 X33247-1Y	6400 (13)	96	142	52	5.5	1.8	55.0	43.0
63 Eronga 'S'	7020 (10)	94	141	52	1.0	1.3	54.5	46.6
64 Platypuss 'S'	7690 ( 1)	99	144	53	1.0	1.0	54.0	41.5
65 Faro 'S'	7380 ( 5)	101	144	51	1.0	1.3	56.0	43.2
66 Alamos 'S'	5940 (15)	98	144	42	1.0	1.0	54.0	36.8
67 Tesmo 'S'	6290 (14)	97	139	37	1.0	2.0	57.0	32.7
69 Trical 193-13	5120 (19)	116	156	47	1.3	1.0	44.5	27.3
70 Trical 194-4	5800 (16)	108	152	49	2.3	1.0	50.5	36.8
71 Trical 603	7280 ( 6)	97	143	48	1.0	1.3	52.0	36.0
72 Trical 449	4130 (20)	125	165	42	1.0	1.0	48.5	27.0
73 Nutriseed 7-1	5490 (17)	112	149	58	1.8	1.5	53.0	39.5
353 Yolo (wheat)	7650 ( 2)	105	147	38	1.0	2.0	61.5	33.0
Mean	6420	103	147	49	1.6	1.3	53.6	39.3
CV	9.1	2.1	1.3	4.4	74.3	29.3	1.5	4.9
LSD (.05)	830	3	3	3	1.7	0.5	1.7	4.0

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%.

Numbers in parentheses indicate relative rank in column.

Table 36. 1987 and 1985-87 Triticale Yield Summary (lb/a)

Entry	1987 4 Loc	1986-87 8 Loc/Yr	1985-87 12 Loc/Yr
1 Siskiyou	5190 (19)	5380 ( 6)	5250 ( 5)
2 Beagle	6720 (11)	6630 ( 4)	6560 ( 4)
12 Juan	7660 ( 2)	7370 ( 1)	7500 ( 1)
54 UC 54	7400 ( 4)	7210 ( 2)	7390 ( 2)
56 Springfest	5440 (18)	5230 ( 7)	
57 Florico	6730 (10)	6640 ( 3)	
59 Nutriseed 16	6960 ( 7)		
60 Nutriseed 18	6490 (13)		
61 UC 61	6950 ( 8)		
62 X33247-1Y	6800 ( 9)		
63 Eronga 'S'	7310 ( 6)		
64 Platypuss 'S'	7390 ( 5)		
65 Faro 'S'	7530 ( 3)		
66 Alamos 'S'	6420 (15)		
67 Tesmo 'S'	6220 (16)		
69 Trical 193-13	5460 (17)		
70 Trical 194-4	6480 (14)		
71 Trical 603	7710 ( 1)		
72 Trical 449	4960 (20)		
73 Nutriseed 7-1	4890 (21)		
353 Yolo (wheat)	6660 (12)	6300 ( 5)	6720 ( 3)
Mean	6540	6390	6680
CV	8.5	9.2	8.9
LSD (.05)	390	290	240

Numbers in parentheses indicate relative rank in column.

Table 37. 1987 UC Davis Oat Grain Test

Entry	Yield (lb/a)	Lodging 5/24	Lodging at harvest	Stem rust	Days to heading after 3/1	Days to maturity after 3/1	Plant height (in)	Test weight (lbs/bu)	Thousand kernel weight (grams)
2 Sierra	3320 ( 9)	1.0	2.8	3.0	54	84	51	28.7	31.1
3 Montezuma	3400 ( 8)	1.0	3.0	2.5	48	81	45	33.1	34.3
4 Cal Red	2700 (11)	2.3	4.8	2.5	58	87	48	31.6	26.2
6 Kanota	2020 (15)	2.5	4.5	3.5	53	80	51	35.3	29.0
10 Swan	2480 (12)	1.0	2.0	3.5	51	85	52	34.8	38.8
22 Cayuse	2060 (14)	1.3	2.3	1.0	66	96	48	32.0	29.9
35 Jaycee	3490 ( 6)	1.0	1.0	1.0	58	82	53	34.6	26.1
89 MO 06072	2160 (13)	1.8	3.3	1.0	63	87	49	34.6	23.0
95 75Q-036-83-1D	4570 ( 1)	1.0	1.3	1.0	63	99	43	35.3	32.2
96 Ogle	4510 ( 3)	1.0	1.0	2.0	62	89	51	33.4	26.2
98 A82-0034	4530 ( 2)	1.0	1.0	1.0	59	81	48	37.8	31.4
105 Magnum	1030 (16)	1.0	4.0	1.0	79	96	64	26.7	22.3
106 82SH163	3310 (10)	1.0	1.3	1.0	61	91	46	34.9	33.9
107 Coker 81C72	3800 ( 4)	1.0	1.5	1.0	60	84	48	37.8	31.3
108 83SH137	3430 ( 7)	1.0	1.0	1.0	61	86	46	34.9	29.6
109 84SH182	3560 ( 5)	1.0	2.5	1.0	60	89	48	34.0	30.4
Mean	3150	1.2	2.3	1.7	60	87	50	33.7	29.7
CV	22.9	50.1	48.5	56.7		2.0	4.6	6.8	5.0
LSD (.05)	1030	0.9	1.6	1.4		4	5	4.9	3.2

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: BYDV, Powdery mildew and Crown rust.  
 Numbers in parentheses indicate relative rank in column.

Table 38. 1987 Yolo Dryland Oat Grain Test

Entry	Yield (lb/a)	Plant height (in)	Test weight (lbs/bu)	Thousand kernel weight (grams)
2 Sierra	870 ( 5)	12	31.6	27.3
3 Montezuma	1320 ( 2)	27	36.0	32.0
4 Cal Red	470 (14)	26	28.9	28.6
6 Kanota	730 ( 9)	32	36.7	24.9
10 Swan	1490 ( 1)	32	39.3	35.3
22 Cayuse	590 (12)	28	20.4	27.3
35 Jaycee	680 (11)	30	30.6	26.2
89 MO 06072	570 (13)	29	31.0	21.4
95 75Q-036-83-1D	1070 ( 3)	22	37.3	31.5
96 Ogle	280 (15)	24	-	-
98 A82-0034	800 ( 7)	24	35.6	29.4
105 Magnum	110 (16)	14	-	-
106 82SH163	690 (10)	24	20.5	27.4
107 Coker	730 ( 8)	24	29.8	26.8
108 83SH13	830 ( 6)	27	31.6	26.5
109 84SH18	870 ( 4)	23	25.3	29.0
Mean	760	26	31.0	28.1
CV	22.2	6.9	3.5	8.4
LSD (.05)	240	4	2.3	4.9

Numbers in parentheses indicate relative rank in column.



Table 39. 1987 and 1985-87 Oat Grain Yield Summary (lb/a)

Entry	1987 2 Loc	1986-87 5 Loc/Yr	1985-87 8 Loc/Yr
2 Sierra	2090 ( 8)	2740 ( 5)	3200 ( 4)
3 Montezuma	2360 ( 4)	2620 ( 6)	3000 ( 5)
4 Cal Red	1580 (12)	1840 (11)	1880 (10)
6 Kanota	1370 (13)	1940 (10)	2310 ( 9)
10 Swan	1990 (11)	3130 ( 3)	3340 ( 3)
22 Cayuse	1320 (15)	1980 ( 8)	2500 ( 7)
35 Jaycee	2090 ( 9)	2550 ( 7)	2850 ( 6)
89 MD 06072	1370 (14)	1970 ( 9)	2430 ( 8)
95 75Q-036-83-1D	2820 ( 1)	3700 ( 1)	3910 ( 1)
96 Ogle	2400 ( 3)	2850 ( 4)	
98 A82-0034	2660 ( 2)	3510 ( 2)	3500 ( 2)
105 Magnum	570 (16)		
106 82SH163	2000 (10)		
107 Coker 81C72	2260 ( 5)		
108 83SH137	2130 ( 7)		
109 84SH182	2210 ( 6)		
Mean	1950	2620	2890
CV	26.8	24.3	21.3
LSD (.05)	520	400	300

Numbers in parentheses indicate relative rank in column.

Table 40. 1987 Yolo Dryland Oat Hay Test

Entry	Forage yield (lbs/a drywt)	Plant ht (in)	Stem coarseness (1-5)
2 Sierra	2900 (15)	28	3.5
3 Montezuma	3200 (11)	26	1.8
4 Cal Red	3500 ( 8)	26	1.2
6 Kanota	3720 ( 5)	33	1.8
10 Swan	4200 ( 2)	30	2.8
22 Cayuse	3920 ( 3)	26	3.0
35 Jaycee	3020 (13)	30	3.6
89 MO 06072	3160 (12)	28	2.0
95 75Q-036-83-1DD	4380 ( 1)	22	3.4
96 Ogle	3500 ( 7)	25	3.5
98 A82-0034	3410 ( 9)	25	3.1
105 Magnum	2460 (16)	26	4.2
106 82SH163	3740 ( 4)	24	2.6
107 Coker 81C72	3010 (14)	24	2.9
108 83SH137	3380 (10)	25	3.2
109 84SH182	3660 ( 6)	23	2.2
Mean	3440		
CV	13.0		
LSD (.05)	430		

Numbers in parentheses indicate relative rank in column.  
 Stem coarseness: 1 = very fine; 5 = coarse