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Crops

Sacramento Valley

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Contents

Wheat and Barley Varieties for the 2009 Crop

Wheat and Barley Varieties for the 2009 Crop

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*Be careful when reviewing the tables to note whether they are for
irrigated or rain fed conditions.*

Wheat Yields

Even with an exceptionally dry spring, wheat stripe rust was severe in some varieties in several locations in the Central Valley (see Table 2). The following varieties are **wheat stripe rust resistant** at this time:

Hard Red Wheats

Espresso (high protein)
Cal Rojo (shattering potential)
Lassik
Redwing

Hard White Wheats

Blanca Fuerte
Blanca Royale
Patwin

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The yield results for eight Sacramento Valley UC Cooperative Extension trials from 2006 through 2008 are given in Table 1. The results for four Yolo County Cooperative Extension trials are summarized in Table 2. The results summarized in Table 1 are from small plots (5 ft. x 15 ft.) and the results in Table 2 are from large plots (15 ft. x 150 ft.).

Wheat Stripe Rust Ratings

Wheat stripe rust ratings for the four 2008 Central Valley trials are shown in Table 3. Be sure to read the disease rating scale at the bottom of the table. The ratings range from 1 to a maximum of 8, but for example a rating of a 6 could be as high as 84 percent infection of the flag leaf.

Rainfed Wheat

There were five harvestable rainfed wheat trials in the Sacramento Valley during the last three years. These results are shown in Table 4.

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Cooperative Extension Work in Agriculture and Home Economics, U.S. Department of Agriculture, University of California and County of Glenn Cooperating

Irrigated Barley

Barley is not widely grown in the Sacramento Valley. There are three barley varieties, UC 937, UC 933 and Ishi, which have good resistance to barley stripe rust. They also have some resistance to scald and net blotch, diseases that are at least partially responsible for barley not being widely grown in the Sacramento Valley.

This disease resistance has been weakening in the past four years. Table 5 is a yield summary of three trials over a three year period for several barley varieties.

Recently in the Sacramento Valley, the predominant barley disease has been the spotting form of barley net blotch. This disease is carried over on crop residue and on planting seed. Barley should not follow barley in a crop rotation. If there was any net blotch in the field where the planting seed was produced, then the planting seed should be treated with a fungicide prior to planting.

UC 937 has a weakness of losing entire heads if winds occur after the grain is mature. Harvesting UC 937 as soon as it is mature will be important if windy weather occurs. UC 937 is capable of very similar yields to UC 933, but must be managed carefully to avoid severe shattering losses.

Rainfed Barley

Five rainfed barley trials in the Sacramento Valley in 2006-2008 and six trials from the southern part of the San Joaquin Valley and San Luis Obispo are included in Table 6.

Summary

There are several good choices of both wheat and barley varieties for the 2009 crop, but there are several good ones of both wheat and barley. However, in this rapidly changing disease situation, **consider planting more than one variety to decrease your risk of severe losses** from any specific disease.

Table 1: 2006-08 Sacramento Valley **irrigated wheat & triticale** yield summary. Yields are in pounds per acre & the numbers in parentheses indicate the relative rank in the column.

Variety	Average 2006-08	Colusa		UC Davis			Sac-SJ Delta		
		2007	2008	2006	2007	2008	2006	2007	2008
(8 Loc-Yr)									
WHEAT									
ANZA	5440 (15)	6240 (13)	5580 (13)	4430 (14)	5060 (20)	4500 (16)	4790 (12)	6670 (20)	6240 (14)
EXPRESS	4560 (20)	4730 (19)	4280 (17)	4160 (15)	5240 (19)	3140 (21)	2790 (21)	7340 (17)	4820 (18)
SUMMIT	4870 (18)	6450 (10)	3560 (21)	3030 (20)	6040 (10)	4660 (14)	4450 (15)	7590 (14)	3140 (20)
BLANCA GRANDE	5690 (13)	5410 (17)	5080 (15)	4100 (16)	6200 (7)	6160 (9)	5290 (11)	7800 (10)	5470 (15)
MIKA	4830 (19)	4640 (20)	4600 (16)	5460 (11)	4920 (21)	3230 (20)	2800 (19)	7680 (11)	5300 (16)
DASH 12	5410 (16)	5870 (16)	3650 (19)	6420 (3)	5920 (11)	3930 (19)	4100 (16)	8370 (4)	5040 (17)
CLEAR WHITE	5880 (11)	6370 (11)	6790 (10)	3880 (17)	5300 (18)	5670 (11)	5670 (6)	7050 (19)	6290 (13)
PATWIN	6450 (7)	6600 (9)	7340 (6)	5500 (9)	5500 (17)	6610 (7)	5550 (9)	7630 (12)	6840 (11)
JOAQUIN	6340 (10)	6230 (14)	7010 (8)	3300 (18)	6770 (3)	6060 (10)	6130 (3)	7980 (8)	7210 (7)
CAL ROJO	6800 (6)	7080 (6)	7530 (5)	5240 (12)	5880 (12)	7030 (4)	6580 (2)	7610 (13)	7470 (4)
LASSIK	6430 (8)	7100 (5)	6940 (9)	6010 (5)	6190 (8)	6370 (8)	4690 (13)	7070 (18)	7090 (9)
EXPRESSO	5570 (14)	4360 (21)	5270 (14)	5630 (7)	5610 (16)	4040 (18)	5470 (10)	7520 (15)	6640 (12)
REDWING	6820 (5)	6830 (7)	7030 (7)	6040 (4)	6400 (5)	7100 (3)	6000 (4)	8220 (6)	6950 (10)
BLANCA ROYALE	6370 (9)	6320 (12)	6780 (11)	5170 (13)	6260 (6)	5510 (12)	5580 (8)	7970 (9)	7380 (5)
BLANCA FUERTE	7150 (3)	7700 (4)	7650 (4)	5480 (10)	6670 (4)	7550 (2)	5640 (7)	8380 (3)	8110 (3)
TRITICALE									
TRICAL BRAND 105	7090 (4)	8000 (3)	7790 (3)	7110 (2)	6160 (9)	6940 (6)	4080 (17)	8400 (2)	8250 (2)
TRICAL BRAND 118	7990 (1)	8510 (1)	8800 (1)	7280 (1)	7220 (2)	7810 (1)	6830 (1)	8760 (1)	8690 (1)
TRICAL BRAND 98	7210 (2)	8110 (2)	8250 (2)	5520 (8)	7720 (1)	6990 (5)	5740 (5)	8060 (7)	7280 (6)
CV	8.8	10.3	12.0	6.5	5.0	14.1	14.8	6.6	7.7
LSD .05	260	860	1010	430	400	1050	960	680	690

Table 2: 2008 Southern Sacramento Valley irrigated wheat variety trial summary over four locations. Research conducted by Kent L. Brittan, Yolo County Farm Advisor (locations: Best, Gnos, Hunn & Mello).

Variety	Days to Heading	Plant Height (in)	Lodging (%)	Shatter (%)	Frost (%)	Disease Rating (1-8) ¹					Protein (%)	Test Weight (lbs/bu)	Yield (lbs/ac)
						Stripe Rust	Leaf Rust	Loose Smut	BYDV	Septoria			
Trical 01T40207	141	40	0	0	0	1	1	1	1	1	9.3	58.0	9420
Trical Brand 118	140	40	6	0	0	1	1	1	1	1	9.9	59.2	8730
Trical Brand 98	135	37	10	0	0	2	1	1	1	1	10.4	57.0	7890
Trical Camelot	143	42	8	0	0	1	1	1	1	1	11.0	55.8	7748
Blanca Fuerte -HW	148	36	0	0	0	1	1	1	1	1	11.0	64.4	7637
Redwing - HR	148	35	0	0	0	1	1	1	1	1	11.0	62.0	7323
RSI 00WB80722 - HR	146	39	1	1	0	1	1	1	1	1	11.3	63.8	6995
PR1404 - MR Forage	156	40	11	1	0	1.2	1	1	1	1	10.6	59.8	6984
Clear White HW	143	38	0	0	0	3	1	1	1	1	11.2	62.7	6919
Cal Rojo -HR	143	36	0	4	0	1	1	1	1	1	11.2	61.7	6762
Lassik-HR	148	37	1	0	0	1	1	1	1	1	11.0	61.8	6628
Patwin UC1419 HW	152	35	0	0	0	1	1	1	1	1	11.8	61.7	6613
Blanca Royal - HW	142	36	0	0	0	1	1	1	1	1	11.4	63.0	6558
Dash 12	148	41	0	1	0	2	1	1	1	1	11.2	62.4	6310
Summit -HR	146	36	0	0	0	7	1	1	1	1	11.4	60.7	5867
Expresso	146	40	0	1	0	1	1	1	1	1	12.3	62.9	5855
Blanca Grande -HW	141	39	16	0	0	6	1	1	1	1	11.4	63.1	5815
Lariat - HR	147	37	0	7	0	1	1	1	1	1	10.9	61.7	5729
Solano	153	36	0	1	0	6	1	1	1	1	11.8	62.8	5464
LSD _{.05}	5	1		1.5		0.2					0.3	0.8	207

Grain color: HR= hard red Trical= triticale HW= hard white MR= medium hard red

¹Disease Rating (1-8): 1=0-3%, 2=4-14%, 3=15-29%, 4=30-49%, 5=50-69%, 6=70-84%, 7=85-95%, 8=96-100%

Table 6: 2006-08 Central Valley and San Luis Obispo **rainfed barley** yield summary. Yields are in pounds per acre & the numbers in parentheses indicate the relative rank in the column.

Variety	Average 2006-08	Glenn			Tehama		Fresno	Tulare		San Luis Obispo		
		2006	2007	2008	2007	2008	2007	2006	2007	2006	2007	2008
(11 Loc-Yr)												
BARLEY												
UC 603	2210 (12)	3500 (11)	2990 (11)	3550 (2)	1480 (12)	2530 (5)	220 (12)	3670 (12)	510 (6)	4040 (10)	540 (11)	1030 (10)
UC 933	2580 (7)	4230 (9)	3930 (6)	3030 (7)	2120 (10)	2410 (6)	760 (1)	5100 (5)	400 (10)	4380 (5)	300 (12)	1430 (4)
UC 937	2640 (5)	4120 (10)	4610 (1)	3380 (4)	2250 (6)	2250 (7)	440 (6)	4860 (8)	560 (5)	4280 (7)	690 (7)	1210 (7)
MELTAN	2520 (8)	4340 (7)	3200 (10)	3390 (3)	2530 (2)	2900 (1)	710 (2)	4610 (11)	660 (4)	3720 (12)	780 (5)	1120 (9)
UC 969	2490 (9)	5140 (1)	2460 (12)	2990 (8)	2020 (11)	2610 (2)	280 (11)	4700 (10)	280 (11)	4470 (4)	760 (6)	1500 (2)
ISHI	2590 (6)	4320 (8)	3550 (8)	2840 (9)	2190 (9)	2140 (9)	310 (9)	4970 (7)	420 (9)	5370 (1)	790 (4)	1180 (8)
TAMALPAIS	2310 (11)	3480 (12)	3460 (9)	2770 (10)	2200 (8)	1540 (12)	290 (10)	5050 (6)	830 (2)	4220 (8)	600 (8)	550 (11)
ADVANCED LINES												
23 IBYT 7	2690 (4)	5100 (2)	3720 (7)	3630 (1)	2470 (4)	1860 (11)	320 (8)	5120 (4)	480 (7)	4370 (6)	580 (10)	1430 (3)
UCD C109	2400 (10)	4410 (6)	3980 (4)	2620 (12)	2360 (5)	1880 (10)	360 (7)	4810 (9)	440 (8)	4130 (9)	590 (9)	520 (12)
UCD C135	2700 (3)	4570 (4)	4390 (2)	3060 (6)	2220 (7)	2570 (4)	530 (4)	5150 (3)	790 (3)	4020 (11)	830 (3)	1270 (6)
UCD C140	2720 (2)	4520 (5)	3970 (5)	3320 (5)	2500 (3)	2610 (3)	480 (5)	5240 (2)	260 (12)	4670 (3)	910 (1)	1300 (5)
UCD C147	2850 (1)	4830 (3)	4200 (3)	2640 (11)	2670 (1)	2250 (8)	690 (3)	5360 (1)	840 (1)	5020 (2)	910 (2)	1530 (1)
CV	20.2	10.3	11.8	15.8	20.3	30.2	64.9	7.7	64.4	11.6	57.1	31.6
LSD _{.05}	220	620	550	540	610	770	370	500	-	760	-	410

Table 3: 2008 irrigated wheat & triticale stripe rust summary. The rating scale is at the bottom of the table & the numbers in parentheses indicate the relative rank in the column.

Variety	Stripe Rust				
	Average (4 Loc)	Colusa	UC Davis	Sac-SJ Delta	Kern
WHEAT					
ANZA	5.2 (18)	7.0	6.8	4.8	2.3
EXPRESS	5.7 (19)	7.3	7.0	6.8	1.8
SUMMIT	6.7 (22)	8.0	8.0	8.0	2.8
BLANCA GRANDE	6.1 (21)	8.0	7.5	7.8	1.0
MIKA	2.1 (13)	3.0	3.3	1.0	1.0
DASH 12	2.9 (15)	3.3	3.3	4.0	1.0
CLEAR WHITE	3.8 (17)	5.3	4.0	5.0	1.0
SOLANO	5.7 (19)	7.8	6.8	7.3	1.0
PATWIN	1.0 (1)	1.0	1.0	1.0	1.0
JOAQUIN	3.6 (16)	3.8	5.0	3.3	2.3
CAL ROJO	1.1 (7)	1.0	1.0	1.3	1.0
OTIS	1.9 (12)	2.0	3.5	1.3	1.0
LASSIK	1.0 (1)	1.0	1.0	1.0	1.0
EXPRESSO	1.0 (1)	1.0	1.0	1.0	1.0
REDWING	1.2 (10)	1.8	1.0	1.0	1.0
BLANCA ROYALE	1.0 (1)	1.0	1.0	1.0	1.0
BLANCA FUERTE	1.0 (1)	1.0	1.0	1.0	1.0
TRITICALE					
TRICAL BRAND 105	1.0 (1)	1.0	1.0	1.0	1.0
TRICAL BRAND 118	1.1 (7)	1.0	1.0	1.3	1.0
TRICAL BRAND 98	2.4 (14)	2.0	3.0	3.3	1.5
RSI 01T40207	1.3 (11)	1.3	1.3	1.8	1.0
WB ACS 55304	1.1 (9)	1.0	1.5	1.0	1.0
CV	29.0	32.1	18.8	27.2	45.0
LSD (.05)	0.5	1.2	0.7	0.9	0.8

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%.

Table 4: 2006-08 Sacramento Valley rainfed wheat yield summary. Yields are in pounds per acre & the numbers in parentheses indicate the relative rank in the column.

Variety	Average 2006-08 (5 Loc-Yr)	Glenn			Tulare	
		2006	2007	2008	2006	2007
WHEAT						
ANZA	2440 (13)	3330 (12)	2420 (16)	2330 (10)	3330 (14)	800 (2)
EXPRESS	2650 (9)	3430 (8)	3390 (9)	2530 (6)	3470 (11)	430 (15)
SUMMIT	2890 (3)	2940 (16)	4150 (2)	2800 (3)	4050 (4)	500 (12)
BLANCA GRANDE	2870 (5)	3970 (1)	3590 (5)	2920 (2)	3530 (9)	330 (16)
MIKA	2530 (11)	3710 (6)	2350 (17)	2210 (12)	3590 (8)	760 (4)
DASH 12	2850 (6)	3510 (7)	3270 (10)	2520 (7)	4330 (2)	620 (8)
CLEAR WHITE	2360 (15)	2730 (17)	2880 (13)	2490 (8)	3010 (15)	700 (6)
SOLANO	2880 (4)	3930 (3)	3540 (6)	2700 (4)	3760 (7)	450 (14)
PATWIN	2570 (10)	3040 (14)	3450 (8)	1860 (15)	3790 (6)	710 (5)
JOAQUIN	2680 (8)	3360 (10)	3480 (7)	3150 (1)	2890 (16)	520 (11)
CAL ROJO	3030 (1)	3950 (2)	3800 (4)	2670 (5)	4230 (3)	520 (10)
LASSIK	2490 (12)	3880 (4)	2570 (14)	2080 (14)	3460 (12)	470 (13)
TRITICALE						
TRICAL BRAND 105	2400 (14)	3090 (13)	2920 (12)	1810 (16)	3400 (13)	810 (1)
TRICAL BRAND 118	3030 (2)	3820 (5)	3870 (3)	2320 (11)	4350 (1)	770 (3)
TRICAL BRAND 98	2790 (7)	3350 (11)	4270 (1)	2170 (13)	3530 (10)	640 (7)
CV	14.7	12.1	13.8	14.2	7.9	66.1
LSD .05	250	830	590	470	400	-

Table 5: 2006-08 Sacramento Valley **irrigated barley** yield summary.
 Yields are in pounds per acre & the numbers in parentheses indicate
 the relative rank in the column.

Variety	Average 2006-08 (3 Loc-Yr)	UC Davis		
		2006	2007	2008
BARLEY				
UC 603	5490 (10)	5160 (11)	5180 (11)	6130 (10)
UC 933	7010 (3)	6080 (6)	6990 (3)	7970 (2)
UC 937	6440 (8)	5910 (8)	6780 (6)	6640 (9)
MELTAN	4510 (12)	5110 (12)	4250 (12)	4180 (11)
UC 969	4900 (11)	6620 (3)	5450 (10)	2630 (12)
ISHI	6860 (5)	6850 (1)	6900 (4)	6830 (8)
TAMALPAIS	6230 (9)	5610 (10)	5800 (9)	7280 (5)
ADVANCED LINES				
23 IBYT 7	6800 (6)	6680 (2)	6860 (5)	6850 (7)
UCD C109	6560 (7)	5900 (9)	6510 (8)	7260 (6)
UCD C135	7060 (2)	5960 (7)	7070 (2)	8150 (1)
UCD C140	6930 (4)	6240 (5)	6770 (7)	7760 (3)
UCD C147	7190 (1)	6570 (4)	7220 (1)	7760 (4)
CV	8.5	7.8	7.2	13.4
LSD _{.05}	440	640	610	1020