SMALL GRAIN AND FIELD CORN RESEARCH

INSECT CONTROL, VARIETY TRIALS 2008

SAN JOAQUIN COUNTY

UNIVERSITY of CALIFORNIA

Cooperative Extension University of California
2101 East Earhart Ave. #200—Stockton—California—95206

2008 SMALL GRAIN and FIELD CORN

RESEARCH PROGRESS REPORT

Mick Canevari, Farm Advisor

San Joaquin County

ACKNOWLEDGEMENTS

The 2008 small grain and field corn research program for San Joaquin County was conducted on common wheat, triticale, durum wheat, barley variety evaluations and spider mite control in field corn. The cooperation and management assistance of Steve Lay (Victoria Island Farms), Bob Cecchini (Brentwood,CA), Lee Jackson and UC Davis staff are greatly appreciated. Many thanks are extended to them for their assistance, interest and patience.

CONTRIBUTING AUTHOR

Donald Colbert …… Extension Field Technician
Randall Wittie …….. Extension Field Technician
Scott Whiteley ……. Extension Field Technician

Caution

This report is a summary of a small grain variety trial and a field corn spider mite trial conducted in San Joaquin County. **It should not in any way be interpreted as a recommendation of the University of California but rather a guide as to the progress in finding solutions to problems.**

Insecticide trade names are used in this report, as well as the less familiar common names to familiarize the reader with the various products tested. No endorsement of products mentioned or criticism of similar products is intended.
Insecticide rates in this report are always expressed as **active ingredient (a.i.) of material per treated acre.**

Trade Name	Common Name	Company
Acramite	Bifenazate	Chemtura
Comite	Propargite	Chemtura
Oberon	Spiromesifen	Bayer CropScience

Field Corn Spider Mite Trial Mick Canevari, Randall Wittie, Don Colbert, Scott Whiteley

OBJECTIVES: Evaluate new insecticides for spider mite control and crop tolerance in field corn.

METHODS AND MATERIALS: Experimental insecticides were applied to an increasing population of the two-spotted spider mite, *Tetranychus urticae,* on June 27, 2008 in field corn near Brentwood, CA, Contra Costa County. (Table 1) Plots were 5 ft x 25 ft arranged in a randomized complete block design with 3 replicates. Treatments were applied with a CO_2 backpack sprayer operating at 35 psi delivering 30 gpa water using cone and flat fan nozzles. A single flat fan nozzle 8002VS over the row and 2 drop nozzles with TXVS8 cone nozzles on each side of the corn. The field corn was 16 – 20 inch height. Spider mite motile and egg counts were taken at 3, 6, 12 and 25 days after treatment (DAT) by selecting 10 leaves from the lower area of the corn stalks and bringing them back to the lab, brushing them onto a glass plate and then counted with the aid of a microscope. Data recorded as mites or eggs/leaf. A subjective visual feeding damage evaluation was made on the plots at 32 days after treatment.

Table1 Treatment List

Treatment	Formulation	Rate Lb Ai/A	Rate Fl Oz/A
1.Acramite Silwet L-77	4 SC	0.75 0.02%V/V	24.0
2.Acramite Silwet L-77	4 SC	0.625 0.02%V/V	20.0
3.Acramite Silwet L-77	4 SC	0.5 0.02%V/V	16.0
4.Comite	6.55 EC	2.46	48.0
5.Oberon Silwet L-77	2 SC	0.133 0.02%V/V	8.5
6.Oberon Silwet L-77	2 SC	0.188 0.02%V/V	12.0
7.Oberon Silwet L-77	2 SC	0.266 0.02%V/V	17.0
8.Untreated Check			

RESULTS AND DISCUSSIONS:

Three Day Counts There was no significant difference between the treatments and the untreated check for mite control. There was a rate response with Acramite and Oberon.

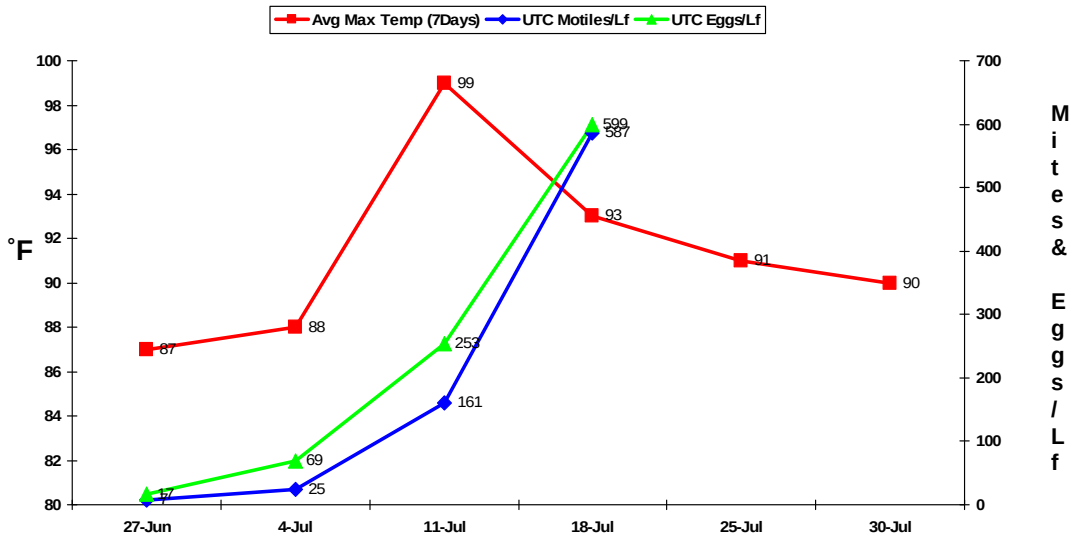
The high rates had fewer mites per leaf. There were fewer eggs with the high rates of Acramite and Oberon. There were no predatory mites in any treatment or the check and thrips counts were very low in all treatments. (Table 2, 3 & 4)

Six Day Counts There was no increase in the untreated check (UTC) population at this count. The 0.75 lb ai/acre rate of Acramite and the 0.266 lb ai/acre rate of Oberon had fewer mites than the UTC. Egg counts were also fewer with the high rates of Acramite as well as Oberon. No predatory mites observed in any treatment as well as the UTC. Thrips counts remained very low. (Table 2, 3 & 4)

Twelve Day Counts The mite population exploded between the 6 and 12 day counts probably due to some 100°+ days that occurred during this time period. (Figure 1) The UTC went from 25 mites and 69 eggs/leaf to161 mites and 253 eggs/leaf. Oberon at 0.266 lb ai/acre had 73 mites and 180 eggs/leaf while Acramite at 0.75 lb ai/acre had 133 mites and 329 eggs/leaf. Comite was the worst treatment at 314 mites and 420 eggs/leaf. No predatory mites were observed in any treatment including the UTC. The thrips population increased in the UTC and the low rates of Acramite and Oberon. (Table 2, 3 & 4)

Twenty-five Day Counts The UTC mite population increased from 161/leaf to 587/leaf. Egg counts increased to 599/leaf. Acramite at 0.75 lb ai/acre and Oberon at 0.266 lb ai/acre provided significant control of mites which resulted in a reduction in eggs/leaf. Although there was an extremely high population of mites, no predatory mites were seen in any treatment as well as the UTC. Thrips populations never increased enough to make an impact on the mite population. (Table 2, 3 & 4)

Figure 1 Average weekly temperatures vs spider mite population in field corn



Application: Jun 27

Table 2 Spider mite control in field corn

Treatment	Fl Oz/A	----------Spider Mite Per Leaf---------- ----------Days After Treatment---------- 3 DAT	6 DAT	12 DAT	25 DAT	Average[1]	% C[2]
1.Acramite	24.0	25.6 a	19.5 a	132.8 a	152.5 c	82.6	58.7
2.Acramite	20.0	44.0 a	34.1 a	163.7 a	190.9 bc	108.2	45.9
3.Acramite	16.0	58.1 a	60.3 a	229.3 a	264.5 bc	153.1	23.5
4.Comite	48.0	58.1 a	42.9 a	314.1 a	418.7 ab	208.5	0
5.Oberon	8.5	53.9 a	58.4 a	228.8 a	348.8 bc	172.5	13.8
6.Oberon	12.0	45.1 a	44.3 a	221.1 a	349.9 bc	165.1	17.5
7.Oberon	17.0	23.7 a	26.4 a	73.3 a	123.7 c	61.8	69.1
8.UTC		26.9 a	24.8 a	160.5 a	587.2 a	200.0	
LSD(P=.05)		34.33	35.66	151.97	230.02		
CV		46.74	52.44	45.56	43.12		

[1] Average = Average of the 4 evaluations.
[2] % C = % Control

Table 3 Spider Mite Egg control in field corn

		----------Spider Mite Eggs Per Leaf-----					
		---------- Days After Treatment----------					
Treatment	**Fl Oz/A**	**3 DAT**	**6 DAT**	**12 DAT**	**25 DAT**	**Average[1]**	**% C[2]**
1.Acramite	24.0	54.7 a	49.3 a	329.1 a	250.1 a	170.8	30.3
2.Acramite	20.0	59.7 a	97.3 a	312.5 a	327.5 a	199.3	18.6
3.Acramite	16.0	120.8 a	100.3 a	283.2 a	326.9 a	207.8	15.2
4.Comite	48.0	110.4 a	99.5 a	420.3 a	560.2 a	297.6	0
5.Oberon	8.5	68.8 a	112.8 a	320.0 a	447.5 a	237.3	3.1
6.Oberon	12.0	70.4 a	58.9 a	283.5 a	390.9 a	200.9	18.0
7.Oberon	17.0	56.5 a	32.8 a	180.3 a	267.7 a	134.3	45.2
8.UTC		59.2 a	68.5 a	252.8 a	598.9 a	244.9	
LSD(P=.05)		55.21	68.53	216.44	246.04		
CV		41.99	50.53	41.51	35.46		

[1] Average = Average of the 4 evaluations.
[2] % C = % Control

Table 4 Effect of insecticides on spider mite predators in field corn

		----------Predators Per Leaf----------							
		----------Days After Treatment----------							
Treatment	**Fl Oz/A**	**3 DAT**		**6 DAT**		**12 DAT**		**25 DAT**	
		PM[1]	**Th[2]**	**PM**	**Th**	**PM**	**Th**	**PM**	**Th**
1.Acramite	24.0	0	2.9a	0	1.1a	0	10.1a	0	4.3a
2.Acramite	20.0	0	0.8a	0	1.6a	0	7.5a	0	10.7a
3.Acramite	16.0	0	1.1a	0	2.4a	0	22.9a	0	7.5a
4.Comite	48.0	0	2.7a	0	0.5a	0	7.5a	0	3.7a
5.Oberon	8.5	0	0.5a	0	1.3a	0	10.1a	0	8.5a
6.Oberon	12.0	0	1.6a	0	1.9a	0	21.9a	0	5.9a
7.Oberon	17.0	0	0.5a	0	0.0a	0	6.7a	0	7.5a
8.UTC		0	2.7a	0	0.3a	0	29.9a	0	7.5a
LSD(P=.05)		0	3.5	0	2.4	0	18.9	0	10.6
CV		0	124.1	0	121.9	0	74.24	0	87.6

[1] PM = Predatory Mites per leaf.
[2] Th = Thrips per leaf.

Thirty-two Day Evaluation: A subjective visual feeding damage evaluation was made by estimating what percentage of the leaves in the plot were desiccated due to mite feeding either by the amount of leaf surface that was stippled or necrotic tissue. The UTC averaged 52% damage while Acramite at 0.75 lb ai/acre and Oberon at 0.266 lb ai/acre had the least feeding damage at 23 and 17% respectively. Oberon was significantly the better of the two products. (Table 5)

Table 5 Spider mite feeding damage on field corn

Treatment	Lb AI/Acre	Feeding Damage[1] 32 DAT[2]
1.Acramite	0.750	23.3 cd
2.Acramite	0.625	30.0 bcd
3.Acramite	0.500	40.0 ab
4.Comite	2.460	38.3 abc
5.Oberon	0.133	36.7 abc
6.Oberon	0.188	30.0 bcd
7.Oberon	0.266	16.7 d
8.UTC		51.7 a
LSD(P=.05)		15.7
CV		26.89

[1] Feeding Damage = 0 none, 100 plant completely dry
[2] DAT = Days After Treatment

Site Characteristics for UC Regional Cereal Evaluation Tests

Location: San Joaquin County, Victoria Island Farms, Sac-San Joaquin Delta (Stockton)

Tests: Common Wheat, Triticale, Durum

Sowing Date: 12/3/07

Soil Type: Egbert muck

2007 Crop: Tomatoes

Fertilization: 100# 11-52-0 at planting, 80# 11-52-0 with seed

Irrigation: Furrow 2X (12" Total)

Rain (Year): 9.0 inches

Location: Yolo County, UC Davis Agronomy Farm, Davis

Tests: Wheat, Durum, Barley

Sowing Date: 11/14/07

Soil Type: Yolo Loam

2007 Crop: Corn

Fertilization: 60# N (urea) with 1% sulfur preplant
80# 11-52-0 with seed
Topdress (at tillering): 50#N (wheat), 40# N (barley)
Topdress at anthesis (wheat): 40#N (urea)

Irrigation: Flood: Wheat 2X (12" total), Barley 1X (6" total)

Rain (Year): 14.0 inches

2008 SACRAMENTO/SAN JOAQUIN DELTA (VICTORIA ISLAND FARMS) COMMON WHEAT AND TRITICALE TEST

Entry	Name	Yield (lbs/acre)	Test Wt (lbs/bu)	Shatter	Plant Ht (in)	Lodging soft dough	Lodging harvest	BYD	Stripe Rust 4/30	Stripe Rust 5/15
CULTIVARS										
20	ANZA	6240 (30)	61.4	1.3	36	1.0	1.0	1.0	4.3	4.8
112	YECORA ROJO	2810 (45)	54.6	1.0	33	1.0	1.0	1.0	8.0	8.0
788	EXPRESS	4820 (38)	58.7	1.8	42	1.0	1.0	1.0	6.5	6.8
1155	SUMMIT	3140 (44)	53.8	1.0	35	1.0	1.0	1.0	8.0	8.0
1156	BLANCA GRANDE	5470 (34)	61.9	2.3	40	1.0	1.0	1.0	6.8	7.8
1340	MIKA	5300 (35)	59.5	2.5	45	1.0	1.0	1.3	1.0	1.0
1341	DASH 12	5040 (37)	61.4	3.3	44	1.0	1.0	1.0	3.0	4.0
1361	CLEAR WHITE	6290 (29)	62.7	1.8	38	1.0	1.0	1.0	4.3	5.0
1392	SOLANO	4610 (39)	57.3	1.0	39	1.0	1.0	1.0	6.5	7.3
1419	PATWIN	6840 (22)	60.0	1.0	37	1.0	1.0	1.3	1.0	1.0
1424	JOAQUIN	7210 (14)	62.5	1.8	38	1.0	1.0	1.0	1.5	3.3
1478	CAL ROJO	7470 (9)	61.6	1.3	33	1.0	1.0	1.0	1.0	1.3
1489	OTIS	5280 (36)	61.3	1.3	51	1.0	1.0	1.0	1.0	1.3
1495	LASSIK	7090 (18)	62.1	1.8	37	1.0	1.0	1.0	1.0	1.0
1500	EXPRESSO	6640 (24)	62.2	1.8	42	1.0	1.0	1.0	1.0	1.0
1521	REDWING	6950 (20)	59.7	1.0	35	1.0	1.0	1.0	1.0	1.0
1522	BLANCA ROYALE	7380 (10)	62.8	1.3	35	1.0	1.0	1.0	1.0	1.0
1523	BLANCA FUERTE	8110 (5)	64.1	1.0	32	1.0	1.0	1.0	1.0	1.0
1555	LARIAT	6290 (28)	61.7	1.5	36	1.0	1.0	1.0	1.0	1.0
1586	SAGITTARIO	5930 (31)	60.9	1.0	34	1.0	1.0	1.0	1.8	2.8
1587	VAIOLET	5790 (32)	61.1	1.0	29	1.0	1.0	1.0	1.3	1.8
1590	ULTRA	7500 (8)	62.9	1.0	33	1.0	1.0	1.0	1.0	1.0
ADVANCED LINES										
1496	WWW BR5874E	7110 (17)	60.1	1.3	42	1.0	1.0	1.0	1.0	1.8
1548	WB DA 904-32W	7220 (13)	62.3	1.3	39	1.0	1.0	1.0	1.0	1.0
1551	UCD 06010/5	5490 (33)	62.7	2.0	42	1.0	1.3	1.0	1.3	1.8
1561	APB W02AZ-365	6570 (25)	61.8	2.3	39	1.0	1.0	1.0	1.0	3.3
1591	RSI 00WB80722	6790 (23)	63.3	2.0	38	1.0	1.0	1.0	1.0	1.5
1592	RSI 01W20153	7860 (6)	61.1	1.0	39	1.0	1.0	1.0	1.0	1.0
1593	RSI 02W50807	7190 (16)	63.2	1.3	37	1.0	1.0	1.0	1.3	2.3
1599	UCD 07013/24	6910 (21)	60.7	1.8	41	1.0	1.0	1.0	1.0	1.0
1600	UCD 07013/30	7650 (7)	62.3	1.0	33	1.0	1.0	1.0	1.0	1.0
1601	UCD 07015/4	6470 (26)	61.4	2.3	41	1.0	1.0	1.0	1.0	1.0
1602	UCD 07015/9	7330 (11)	62.5	1.0	38	1.0	1.0	1.0	1.0	1.0
1603	UCD 07103/57	7080 (19)	62.2	1.0	35	1.0	1.0	1.0	1.0	1.0
1604	WB YU903-283	7210 (15)	60.5	1.3	35	1.0	1.0	1.0	1.0	1.8
1605	WB BZ904-331WP	6410 (27)	63.0	1.8	38	1.0	1.0	1.0	1.0	1.0
1608	WWW CNBR9330	3930 (41)	61.3	3.5	46	1.0	1.0	1.3	1.8	2.0
1610	APB W05AZ-137	3780 (42)	61.8	3.0	43	1.8	1.0	1.0	1.0	1.8
1611	APB W05AZ-149	4100 (40)	61.1	3.3	42	1.0	1.0	1.0	1.0	2.8
1612	APB W05AZ-176	3410 (43)	61.0	4.0	40	1.8	1.0	1.3	1.0	1.0
TRITICALE										
3097	TRICAL BRAND 105	8250 (4)	58.9	1.0	46	1.0	1.0	1.0	1.0	1.0
3156	TRICAL BRAND 118	8690 (3)	58.6	1.0	43	1.0	1.0	1.0	1.3	1.3
3158	TRICAL BRAND 98	7280 (12)	54.1	1.0	41	1.0	1.0	1.0	2.8	3.3
3163	RSI 01T40207	9160 (2)	57.7	1.0	40	1.0	1.0	1.0	1.5	1.8
3164	WB ACS 55304	9280 (1)	59.3	1.0	45	1.0	1.0	1.0	1.0	1.0
	MEAN	6390	60.8	1.6	39	1.0	1.0	1.0	2.0	2.4
	CV	7.7	1.4	34.4	4.3	19.3	7.4	14.6	17.6	27.2
	LSD (.05)	690	1.8	0.8	2	0.3	ns	ns	0.5	0.9

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%.

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

Numbers in parentheses indicate relative rank in column.

Durum Wheat Observation Trial
2008 Sacramento-San Joaquin Delta
Victoria Island Farms

Entry	Rep 1		Rep 2		Mean Yield
	Plant Ht (in)	Yield (lb/acre)	Plant Ht (in)	Yield (lb/acre)	(lb/acre
Duraking	39	5638	39	8030	6834
Crown	37	5436	38	8064	6750
Platinum	34	6696	35	7815	7255
Desert King	38	8127	39	7618	7872
Fortissimo	36	7798	37	8116	7957
Cal Rojo	34	7372	31	7477	7424

2008 UC DAVIS COMMON WHEAT AND TRITICALE TEST

Entry	Name	Yield (lbs/acre)	Test Wt (lbs/bu)	1000 Kernel Wt (g)	Shatter	Plant Ht (in)	Lodging soft dough	Lodging harvest	Days to Head (from 3/1)	Days to Mature (from 3/1)	BYD	Stripe Rust
CULTIVARS												
20	ANZA	4500 (33)	60.2	31.9	1.0	38	1.3	1.0	43	88	1.0	6.8
112	YECORA ROJO	4380 (34)	60.3	43.2	1.5	36	1.0	1.0	31	80	1.3	8.0
788	EXPRESS	3140 (40)	59.3	37.1	3.0	44	1.8	2.0	40	85	2.0	7.0
1155	SUMMIT	4660 (28)	54.7	31.3	1.0	39	1.0	1.0	42	87	1.3	8.0
1156	BLANCA GRANDE	6160 (18)	64.4	43.5	2.3	43	1.0	1.0	33	84	1.3	7.5
1340	MIKA	3230 (39)	58.3	39.3	3.5	47	2.8	1.8	43	90	2.0	3.3
1341	DASH 12	3930 (37)	62.0	40.6	3.3	46	1.8	2.5	42	87	1.0	3.3
1361	CLEAR WHITE	5670 (21)	63.6	40.8	1.3	45	1.0	1.0	37	86	1.3	4.0
1392	SOLANO	4790 (26)	57.2	34.2	1.8	43	1.0	1.0	40	87	1.3	6.8
1419	PATWIN	6610 (14)	61.1	39.1	1.0	42	1.0	1.0	45	91	1.5	1.0
1424	JOAQUIN	6060 (19)	63.2	45.6	1.8	41	1.0	1.0	35	85	1.5	5.0
1478	CAL ROJO	7030 (8)	62.1	45.1	1.3	38	1.0	1.0	38	83	1.8	1.0
1489	OTIS	3250 (38)	61.0	32.7	2.0	54	1.0	1.0	56	95	2.3	3.5
1495	LASSIK	6370 (16)	62.9	39.0	1.0	39	1.5	1.3	43	88	2.3	1.0
1500	EXPRESSO	4040 (35)	w	40.9	3.8	43	1.0	1.0	41	86	2.0	1.0
1521	REDWING	7100 (7)	62.1	44.3	1.3	39	1.0	1.0	39	88	1.3	1.0
1522	BLANCA ROYALE	5510 (23)	62.9	43.2	2.8	40	1.0	1.0	38	85	1.3	1.0
1523	BLANCA FUERTE	7550 (4)	64.7	44.3	1.8	38	1.0	1.0	41	89	1.0	1.0
1555	LARIAT	5000 (24)	62.7	39.7	2.8	39	1.0	1.0	42	86	2.3	1.0
1586	SAGITTARIO	4620 (30)	60.7	43.4	1.0	36	2.3	1.8	44	86	3.0	2.5
1587	VAIOLET	4660 (27)	60.7	32.7	1.0	35	1.0	1.0	47	91	2.3	2.0
1590	ULTRA	8000 (2)	63.8	45.2	1.0	38	1.0	1.0	41	88	1.0	1.0
ADVANCED LINES												
1496	WWW BR5874E	4640 (29)	59.0	34.0	2.0	45	1.8	1.8	48	93	1.3	4.5
1548	WB DA 904-32W	5540 (22)	62.9	39.0	2.3	41	1.3	1.8	42	89	1.0	1.0
1551	UCD 06010/5	1730 (45)	61.8	40.7	5.5	49	1.3	1.8	44	90	2.0	1.8
1561	APB W02AZ-365	4580 (31)	62.5	47.3	3.0	39	1.5	1.8	30	81	1.0	6.8
1591	RSI 00WB80722	4570 (32)	64.1	45.2	4.0	42	1.0	1.0	40	87	1.0	3.0
1592	RSI 01W20153	6870 (11)	62.0	38.4	1.5	41	1.0	1.0	43	91	1.5	1.0
1593	RSI 02W50807	6540 (15)	64.0	47.6	3.0	42	1.0	1.0	37	87	1.3	1.0
1599	UCD 07013/24	3980 (36)	61.4	41.6	3.8	41	1.0	1.0	46	90	1.5	1.0
1600	UCD 07013/30	7180 (6)	64.1	50.0	1.0	37	1.0	1.0	38	87	1.0	1.0
1601	UCD 07015/4	5910 (20)	62.8	50.5	1.8	44	1.3	1.8	42	88	1.5	1.0
1602	UCD 07015/9	6660 (12)	63.2	36.8	1.0	42	1.0	1.0	44	92	1.8	1.0
1603	UCD 07103/57	6170 (17)	63.9	38.2	1.5	40	1.0	1.0	43	87	1.0	1.0
1604	WB YU903-283	6630 (13)	60.7	44.7	1.0	40	1.0	1.0	38	90	1.0	5.8
1605	WB BZ904-331WP	4800 (25)	63.7	46.3	4.0	41	2.0	2.0	33	84	2.0	3.3
1608	WWW CNBR9330	3070 (41)	60.6	36.7	4.0	48	2.3	2.0	45	89	2.5	2.0
1610	APB W05AZ-137	2380 (44)	62.0	52.0	4.5	40	4.0	4.5	29	78	2.3	2.0
1611	APB W05AZ-149	2570 (42)	62.5	49.5	3.3	39	4.0	4.5	29	82	2.0	3.3
1612	APB W05AZ-176	2530 (43)	61.9	51.9	3.8	38	5.0	5.5	29	79	2.0	2.3
TRITICALE												
3097	TRICAL BRAND 105	6940 (10)	59.9	45.1	1.0	49	1.0	1.0	34	87	1.8	1.0
3156	TRICAL BRAND 118	7810 (3)	59.5	37.6	1.0	42	1.0	1.0	33	87	1.0	1.0
3158	TRICAL BRAND 98	6990 (9)	55.4	36.6	1.0	41	1.0	1.0	26	87	1.0	3.0
3163	RSI 01T40207	8110 (1)	59.3	46.4	1.0	43	1.0	1.0	31	87	1.0	1.3
3164	WB ACS 55304	7350 (5)	60.5	47.9	1.0	43	1.3	1.5	33	87	1.0	1.5
	MEAN	5330	61.5	41.8	2.1	41	1.4	1.5	39	87	1.5	2.8
	CV	14.1	1.2	4.1	31.9	3.3	37.7	55.2	3	1.2	36.2	18.8
	LSD (.05)	1050	1.4	3.4	1.0	3	0.8	1.1	2	2	0.8	0.7

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%.

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

Numbers in parentheses indicate relative rank in column.

2008 UC DAVIS DURUM WHEAT TEST

Entry	Name	Yield (lbs/acre)	Test Wt (lbs/bu)	1000 Kernel Wt (g)	Plant Ht (in)	Lodging soft dough	Lodging harvest	Days to Head (from 3/1)	Days to Mature (from 3/1)	BYD	Stripe Rust
CULTIVARS											
878	DURAKING	8240 (3)	62.1	55.2	43	1.0	1.0	42	93	1.3	1.0
951	KRONOS	6530 (23)	62.5	58.0	39	2.3	3.3	36	85	1.8	3.0
1166	CROWN	7990 (6)	63.6	49.7	41	1.0	1.0	43	89	1.8	2.0
1210	PLATINUM	8720 (1)	63.9	52.2	36	1.0	1.8	38	86	1.3	1.0
1375	DESERT KING	7660 (8)	64.8	54.4	42	1.0	1.0	46	92	1.0	1.0
1429	FORTISSIMO	7860 (7)	62.6	51.2	37	1.0	1.0	42	88	1.0	1.0
1431	VOLANTE	8080 (4)	64.7	60.6	36	1.0	1.3	42	89	1.0	1.0
1473	Q-MAX	7320 (13)	61.2	51.7	44	1.0	1.5	45	92	1.5	1.0
1484	WESTMORE	7010 (17)	64.1	45.2	38	1.8	4.8	39	88	1.0	1.0
1582	MAESTRALE	5370 (26)	63.1	53.9	43	4.3	5.5	41	88	2.0	1.3
1583	SARAGOLLA	6990 (18)	63.7	48.5	39	1.0	2.8	42	90	1.0	2.0
1588	LEVANTE	6610 (22)	63.3	46.0	45	1.0	2.0	49	90	1.3	1.0
ADVANCED LINES											
1467	WB YU803-11	7650 (9)	64.5	56.0	39	1.0	1.3	43	92	1.0	1.0
1563	UCD 06222/30	6640 (21)	64.5	59.0	38	1.0	1.0	44	89	1.0	2.5
1564	UCD 06222/33	6260 (24)	64.4	56.4	37	1.0	2.5	44	86	1.0	1.3
1585	UCD 06222/53	7130 (15)	64.2	53.7	42	1.5	4.0	44	91	1.5	3.8
1594	RSI 06WV119	7040 (16)	63.0	53.8	38	2.3	3.5	37	87	1.3	1.8
1595	RSI 06WV141	7370 (11)	63.5	48.6	37	1.0	1.0	39	88	1.0	3.3
1596	RSI 06WV161	7220 (14)	64.0	54.5	39	1.0	1.0	40	90	1.0	1.3
1597	RSI 06WV164	6900 (19)	63.1	58.9	38	1.0	1.0	39	89	1.5	4.0
1598	UCD 06222/52	6850 (20)	63.0	53.1	38	1.3	3.8	38	86	1.0	4.0
1606	WB DA804-24	8280 (2)	63.2	59.2	37	1.0	1.0	36	85	1.3	1.3
1609	WWW CHD1126B	5830 (25)	60.6	47.8	38	1.0	3.3	45	88	1.0	6.3
1613	APB D04AZ-335	7530 (10)	63.6	60.2	34	1.0	1.0	39	86	1.0	1.0
1614	APB D257-11/2	8010 (5)	63.2	47.9	40	1.0	1.5	39	85	1.0	1.0
1615	APB D257-11/3	7350 (12)	63.6	49.4	37	1.3	2.8	39	84	1.5	1.0
	MEAN	7250	63.4	53.3	39	1.3	2.1	41	88	1.2	1.9
	CV	7.6	0.9	3.7	3.7	30.9	44.0	3	1.6	41.0	15.3
	LSD (.05)	780	1.2	4.0	3	0.6	1.3	3	3	ns	0.4

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%.

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

Numbers in parentheses indicate relative rank in column.

2008 UC DAVIS BARLEY TEST

Entry	Name	Yield (lbs/acre)	Test Wt (lbs/bu)	1000 Kernel Wt (g)	Shatter	Plant Ht (in)	Lodging soft dough	Lodging harvest	Days to Head (from 3/1)	Mature	BYD	Stripe Rust
CULTIVARS												
603	UC 603	6130 (13)	51.9	37.8	1.0	37	1.0	1.0	29	75	1.3	1.0
816	MAX	6090 (14)	55.2	43.0	1.5	35	1.0	1.8	43	86	1.0	3.8
933	UC 933	7970 (2)	53.4	46.8	1.0	36	1.0	1.0	32	77	1.0	1.0
937	UC 937	6640 (11)	53.9	49.2	2.3	41	1.5	1.3	39	82	1.0	1.0
951	MELTAN	4180 (16)	56.9	39.6	1.5	35	1.5	2.8	45	72	3.0	2.8
964	STRIDER	2630 (19)	51.9	32.1	1.3	41	1.0	1.3	60	80	4.0	1.0
969	UC 969	2630 (20)	55.4	45.7	4.5	41	1.0	1.0	27	74	1.0	2.0
1047	ISHI	6830 (9)	52.9	45.3	1.3	39	1.0	1.0	36	78	1.0	2.5
1130	HOODY	1350 (22)	48.2	38.0	3.3	39	1.3	2.0	58	85	1.5	1.0
1134	TAMALPAIS	7280 (6)	60.0	43.0	1.3	39	1.0	1.3	32	77	1.0	1.0
1211	SOLAR	3100 (18)	56.4	44.4	2.8	45	4.3	3.8	20	75	1.0	6.0
ADVANCED LINES												
1095	23 IBYT 7	6850 (8)	53.5	45.7	2.3	42	1.0	1.5	35	77	1.0	1.3
1109	UCD C109	7260 (7)	51.6	46.4	1.0	40	1.0	1.0	37	80	1.0	1.0
1115	UCD C135	8150 (1)	52.3	46.6	1.0	36	1.0	1.0	39	80	1.0	1.0
1116	UCD C140	7760 (3)	53.5	48.2	1.0	39	1.0	1.0	38	74	1.0	1.0
1118	UCD C147	7760 (4)	53.4	45.8	1.5	40	1.0	1.3	35	75	1.0	1.0
1171	T/S//E 11-18	3430 (17)	53.7	37.6	4.3	41	1.0	2.0	30	74	1.8	1.3
1208	UCD 06YP-2/341	6740 (10)	51.4	48.6	1.0	41	1.0	1.0	40	81	1.0	1.3
1212	WWW BA1129B-C	7510 (5)	52.7	44.2	1.0	31	1.0	1.0	35	80	1.0	1.0
1214	T/S 25	1630 (21)	49.7	38.8	4.0	47	5.5	4.8	45	76	1.3	1.5
1228	K/H SPECIAL BLEND	1140 (23)	47.1	32.5	2.3	40	2.3	2.8	57	85	2.5	1.0
1229	F8 7HB37/TTA94	4710 (15)	61.7	39.3	2.0	40	1.0	4.0	44	79	1.0	1.0
1230	UCD 07YP326	6330 (12)	50.4	47.4	1.0	41	1.0	1.0	43	83	1.3	1.0
	MEAN	5400	53.4	42.9	1.9	39	1.4	1.8	39	78	1.4	1.6
	CV	13.4	2.1	3.7	24.1	5.6	35.7	31.5	3	1.5	33.9	24.1
	LSD (.05)	1020	2.4	3.3	0.6	5	0.7	0.8	2	2	0.7	0.5

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%.

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

Numbers in parentheses indicate relative rank in column.

This is a work in progress only. The chemicals and uses contained in this publication are experimental data and should not be considered as recommendations for use.

Until the products and their uses given in this report appear on a registered pesticide label or other legal, supplementary direction for use, it is illegal to use the chemicals as described.

WARNING ON THE USE OF CHEMICALS

Pesticides are poisonous. Always read and carefully follow all precautions and safety recommendations given on the container label. Store all chemicals in their original labeled containers in a locked cabinet or shed, away from food or feeds, and out of the reach of children, unauthorized persons, pets and livestock.

Recommendations are based on the best information currently available, and treatments based on them should not leave exceeding the tolerance established for any particular chemical. Confine chemicals to the area being treated. **THE GROWER IS LEGALLY RESPONSIBLE** for residues on his crops as well as for problems caused by drift from his property to other properties or crops.

Consult your County Agricultural Commissioner for correct methods of disposing of leftover spray material and empty containers. Never burn pesticide containers.

PHYTOTOXICITY

Certain chemicals may cause plant injury if used at the wrong stage of plant development or when temperatures are too high or when overcast conditions occur. Injury may also result from excessive amounts or the wrong formulation or mixing incompatible materials. Inert ingredients such as wetters, spreaders, emulsifiers, diluents, and solvents, can cause plant injury. Since formulations are often changed by manufacturers, it is possible that plant injury may occur, even though no injury was noted in previous seasons.

No endorsement of named products is intended, nor is criticism implied of similar products which are not mentioned.

University of California Cooperative Extension
2101 East Earhart Avenue, Stockton, California 95206 Telephone (209) 953-6100

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