



# Agronomy Notes

October 2009

University of California  
Cooperative Extension

Colusa, Sutter, Yuba and  
Glenn Counties



## Some simple guidelines for Stripe Rust Management in Wheat

- **Plant a stripe rust resistant variety—**

The University of California Small Grains Regional Variety Testing program has provided information in the tables on the next few pages that are useful for selecting varieties to plant. There is information on yield, protein, stripe rust and other diseases that should all be taken into account in selecting a variety. Choose wisely!

- **Don't put all your eggs in one basket—**

Plant more than one variety to reduce risk. The last thing we want, once again, is 250,000 acres of wheat planted to one variety. This is what happened with Summit and Express. These varieties that were once resistant, quickly succumbed to new strains of the stripe rust fungus because of this mono-culture. If we had a patch work of varieties across the valley, the disease spread would have been much slower. Do your part and plant more than one variety and reduce your risk by doing so.

- **Closely monitor your crop from flag leaf to flowering—**

Our stripe rust fungicide research has confirmed that protecting the flag leaf is the most important factor in protecting a crop from stripe rust.

- **If you find stripe rust in your wheat before the flowering stage—treat it with a fungicide.**

The yield loss from stripe rust is greater when it develops at early heading and is lower when it develops near flowering. Our research showed that the greatest return on investment from fungicide applications came from treating stripe rust when it is starting to develop, not when it has fully infected flag leaves. Very early developing stripe rust may need to be treated twice. Late developing stripe rust (at or near wheat flowering stage) simply does not reduce grain yield enough to offset the cost of the fungicide. Wheat flowering is the legal and economic cut off time for applying fungicides.

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United States Department  
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For special assistance regarding our programs, please contact us.

2009 AND 2007-09 COMMON WHEAT AND TRITICALE YIELD SUMMARY (LBS/ACRE)

Entry	Name	Sacramento Valley			San Joaquin Valley			Rainfed Tests		
		2009 (3 Loc)	2008-09 (6 Loc/Yr)	2007-09 (9 Loc/Yr)	2009 (3 Loc)	2008-09 (6 Loc/Yr)	2007-09 (9 Loc/Yr)	2009 (2 Loc)	2008-09 (3 Loc/Yr)	2007-09 (5 Loc/Yr)
<b>CULTIVARS</b>										
20	ANZA	4500 (23)	4970 (16)	5310 (13)	4680 (23)	5060 (16)	5170 (14)	1730 (25)	1930 (14)	1800 (11)
112	YECORA ROJO	3830 (26)	3710 (19)	4370 (16)	4110 (29)	4970 (17)	5140 (16)	1880 (16)	2080 (11)	1960 (9)
788	EXPRESS	4810 (21)	4440 (17)	4890 (14)	4460 (27)	4810 (19)	5230 (13)	2080 (11)	2230 (9)	2100 (6)
1156	BLANCA GRANDE	4750 (22)	5160 (15)	5590 (11)	5490 (5)	6060 (3)	6230 (2)	2170 (6)	2420 (3)	2240 (5)
1340	MIKA	4410 (25)	4390 (18)	4850 (15)	4560 (25)	4960 (18)	5240 (12)	1730 (25)	1890 (16)	1760 (12)
1361	CLEAR WHITE	5470 (11)	5860 (11)	5990 (9)	5130 (13)	5380 (13)	5310 (11)	2120 (7)	2240 (7)	2060 (8)
1419	PATWIN	5870 (4)	6400 (6)	6460 (4)	5160 (11)	5800 (6)	5610 (8)	1880 (16)	1870 (17)	1960 (9)
1424	JOAQUIN	5620 (8)	6190 (7)	6460 (4)	5210 (9)	5480 (11)	5870 (5)	2090 (9)	2440 (1)	2270 (4)
1478	CAL ROJO	5540 (10)	6440 (5)	6580 (3)	5530 (4)	6020 (4)	5750 (7)	2200 (4)	2360 (4)	2280 (3)
1495	LASSIK	5380 (15)	6090 (8)	6320 (6)	5790 (1)	5850 (5)	5920 (4)	1510 (28)	1700 (18)	1630 (14)
1500	EXPRESSO	5220 (19)	5270 (14)	5450 (12)	4870 (19)	5070 (15)	5160 (15)	2090 (9)	2240 (7)	2090 (7)
1521	REDWING	6210 (3)	6610 (3)	6790 (2)	5790 (1)	6240 (2)	6470 (1)	1910 (15)	2170 (10)	-
1522	BLANCA ROYALE	5420 (14)	5990 (10)	6270 (8)	5190 (10)	5600 (8)	5850 (6)	1810 (23)	2060 (12)	-
1523	BLANCA FUERTE	6380 (1)	7080 (1)	7250 (1)	5160 (11)	5790 (7)	5980 (3)	2430 (1)	2430 (2)	2330 (2)
1548	CHRISTALLO	5830 (5)	6020 (9)	6320 (6)	5120 (15)	5290 (14)	5590 (10)	1960 (14)	2310 (6)	2410 (1)
1550	TRIPLE IV	-	-	-	-	-	-	1630 (27)	1930 (14)	1720 (13)
1555	LARIAT	5350 (18)	5570 (12)	5920 (10)	5000 (16)	5420 (12)	5600 (9)	1860 (18)	1960 (13)	-
1605	PALOMA	5360 (17)	5340 (13)	-	4980 (17)	5580 (9)	-	-	-	-
<b>TRITICALE</b>										
3097	TRICAL BRAND 105	6210 (4)	6930 (4)	7130 (2)	5460 (3)	5250 (4)	5540 (2)	2030 (4)	1960 (5)	1920 (3)
3156	TRICAL BRAND 118	7130 (2)	7780 (2)	7910 (1)	5510 (2)	5340 (3)	5780 (1)	2190 (2)	2230 (2)	2270 (1)
3158	TRICAL BRAND 98	5310 (5)	6410 (5)	6930 (3)	4520 (5)	4400 (5)	4950 (3)	2050 (3)	2090 (3)	2240 (2)
3163	TRICAL BRAND 110	7230 (1)	8090 (1)	-	6250 (1)	6100 (1)	-	2400 (1)	2360 (1)	-
3164	PACHECO	6750 (3)	7490 (3)	-	4790 (4)	5570 (2)	-	1930 (5)	2090 (3)	-
MEAN		5080	6060	6150	4910	5670	5690	1930	2150	2060
CV		11.8	9.5	8.4	11.9	12.4	11.7	20.4	17.7	18.3
LSD (.05)		480	330	240	470	440	330	390	310	240

Numbers in parentheses indicate relative rank.

2009 UCD COMMON WHEAT TEST

Entry	Name	Type	Yield (lbs/acre)	Test Wt (lbs/bu)	Plant Ht (in)	Lodging Harvest	Septoria	Powdery Mildew	Stripe Rust	Leaf Rust	
										5/12	5/20
<b>CULTIVARS</b>											
20	ANZA	HRS	5130 (25)	62.4	39	1.5	1.0	1.0	5.3	1.0	1.0
112	YECORA ROJO	HRS	4520 (29)	61.4	33	2.0	1.0	1.0	7.3	1.0	1.0
788	EXPRESS	HRS	6040 (20)	62.5	40	1.3	1.3	1.0	3.5	1.0	1.7
1156	BLANCA GRANDE	HWS	6110 (16)	63.6	36	1.3	1.5	1.0	6.5	1.0	1.0
1340	MIKA	HRS	5010 (26)	61	42	2.3	1.0	1.0	2.0	2.0	3.0
1361	CLEAR WHITE	HWS	6100 (17)	62.7	40	1.0	1.3	1.0	3.8	1.0	2.6
1419	PATWIN	HWS	6320 (11)	62	35	1.0	1.0	1.3	1.3	1.3	2.3
1424	JOAQUIN	HRS	6360 (9)	63.2	37	1.5	1.0	2.3	4.8	2.0	4.5
1478	CAL ROJO	HRS	6050 (19)	61.6	34	1.0	1.8	1.0	1.0	1.0	1.0
1495	LASSIK	HRS	6160 (15)	62.6	36	1.8	1.0	2.0	1.0	1.3	4.5
1500	EXPRESSO	HRS	6320 (11)	62.8	40	1.0	1.0	1.0	1.0	1.0	1.0
1521	REDWING	HRS	7240 (2)	62.3	35	1.0	1.0	2.3	1.3	1.3	1.7
1522	BLANCA ROYALE	HWS	6280 (13)	62.8	35	1.3	1.3	1.0	4.0	1.3	2.1
1523	BLANCA FUERTE	HWS	6880 (3)	64.9	34	1.0	1.0	1.0	1.0	1.0	1.0
1548	CHRISTALLO	HWS	6580 (6)	63.8	37	2.0	1.0	1.0	1.0	1.0	2.4
1555	LARIAT	HRS	6090 (18)	63.2	36	1.0	1.0	1.0	1.3	1.3	1.0
1605	PALOMA	HWS	6370 (8)	63.1	38	1.8	1.0	1.1	2.8	2.0	2.5
<b>TRITICALE</b>											
3097	TRICAL BRAND 105	TCL	6640 (4)	59.1	44	1.0	1.0	1.0	1.3	1.0	3.7
3156	TRICAL BRAND 118	TCL	7540 (1)	59.9	39	1.0	1.0	1.0	2.0	1.0	1.0
3158	TRICAL BRAND 98	TCL	5750 (5)	56.2	36	1.0	1.0	1.0	5.5	1.0	1.0
3163	TRICAL BRAND 110	TCL	7260 (2)	59.4	38	1.0	1.0	1.5	3.3	2.5	1.0
3164	PACHECO	TCL	7220 (3)	60.7	41	1.3	1.0	1.0	2.0	1.8	1.0
	MEAN		5840	62	38	1.9	1.1	1.1	2.6	1.6	3.54
	CV		7.9	0.8	3.3	49.1	28.0	46.4	45.2	49.6	30.1
	LSD (.05)		640	1.0	3.0	1.3	ns	0.7	1.7	1.1	1.52

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

Numbers in parentheses indicate relative rank in column.

2009 COLUSA COMMON WHEAT TEST

Entry	Name	Type	Yield (lbs/acre)	Test Wt (lbs/bu)	1000	Plant Ht (in)	Lodging Harvest	Septoria	Stripe Rust	Powdery Mildew
					Kernel Wt (g)					
<b>CULTIVARS</b>										
20	ANZA	HRS	4100 (24)	62.1	40.0	38	1.5	2.8	2.8	1.0
112	YECORA ROJO	HRS	3180 (28)	61.6	43.9	32	6.3	4.3	6.3	1.0
788	EXPRESS	HRS	4270 (23)	61.9	43.4	39	2.8	2.3	2.5	1.0
1156	BLANCA GRANDE	HWS	3940 (26)	63.6	45.3	38	4.5	2.5	1.5	1.0
1340	MIKA	HRS	4810 (19)	62.1	44.2	44	3.0	1.5	1.0	1.0
1361	CLEAR WHITE	HWS	5610 (7)	62.2	42.3	36	1.5	2.8	1.0	1.0
1419	PATWIN	HWS	5480 (12)	61.5	43.3	36	1.0	1.5	1.0	1.0
1424	JOAQUIN	HRS	5590 (8)	61.6	44.8	38	2.8	2.3	1.5	5.5
1478	CAL ROJO	HRS	6060 (3)	61.0	45.9	38	1.0	2.5	1.0	1.0
1495	LASSIK	HRS	5490 (10)	61.7	43.1	38	1.0	4.3	1.0	1.0
1500	EXPRESSO	HRS	5520 (9)	62.9	41.5	41	1.8	1.3	1.0	1.0
1521	REDWING	HRS	6210 (2)	60.6	43.3	36	1.0	3.3	1.0	1.8
1522	BLANCA ROYALE	HWS	4560 (20)	62.6	42.1	35	3.3	2.8	1.0	1.0
1523	BLANCA FUERTE	HWS	6440 (1)	63.3	44.2	35	1.0	5.5	1.0	1.0
1548	CHRISTALLO	HWS	5750 (5)	62.5	42.9	39	1.5	2.5	1.0	1.0
1555	LARIAT	HRS	5250 (15)	63.2	43.7	39	1.0	2.3	1.0	1.0
1605	PALOMA	HWS	5200 (16)	62.3	42.6	37	4.0	3.8	2.0	1.0
<b>TRITICALE</b>										
3097	TRICAL BRAND 105	TCL	6060 (4)	59.7	46.9	43	1.3	1.8	1.0	1.0
3156	TRICAL BRAND 118	TCL	7080 (2)	59.4	41.8	40	1.0	1.5	1.3	1.0
3158	TRICAL BRAND 98	TCL	5590 (5)	55.8	39.8	37	1.0	2.5	3.0	1.0
3163	TRICAL BRAND 110	TCL	7350 (1)	58.4	45.5	40	1.3	2.8	1.3	1.0
3164	PACHECO	TCL	6090 (3)	58.8	46.0	41	1.0	2.3	1.5	1.0
	MEAN		4890	61.5	43.5	38	2.7	2.7	1.6	1.2
	CV		14.5	0.9	3	3.4	46.3	37.6	40.8	34.2
	LSD (.05)		1000	1.1	2.6	3.0	1.8	1.4	0.9	0.6

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

## 2009 COMMON WHEAT GRAIN PROTEIN SUMMARY (%)

Entry	Name	Over-all	Sacramento Valley			San Joaquin Valley				
		Mean (6 loc)	Mean (3 loc)	Colusa	UC Davis	Sac/SJ Delta	Mean (3 loc)	Fresno	Kings	Kern
<b>CULTIVARS</b>										
20	ANZA	11.46 (32)	11.63	10.54	11.87	12.49	11.28	8.39	12.91	12.54
112	YECORA ROJO	13.09 (14)	13.04	12.18	13.19	13.76	13.14	10.24	15.23	13.94
788	EXPRESS	13.43 (9)	13.44	12.68	13.84	13.81	13.41	10.45	14.61	15.18
1156	BLANCA GRANDE	13.04 (15)	12.85	10.68	12.60	15.27	13.23	11.15	14.30	14.24
1340	MIKA	13.69 (6)	13.31	10.13	13.73	16.08	14.07	11.68	14.52	16.02
1361	CLEAR WHITE	12.66 (24)	12.78	10.67	12.41	15.25	12.55	10.05	13.32	14.28
1419	PATWIN	12.93 (17)	13.63	13.37	13.54	13.98	12.22	8.28	14.00	14.38
1424	JOAQUIN	13.47 (8)	13.35	10.12	14.26	15.66	13.60	10.58	14.71	15.50
1478	CAL ROJO	12.75 (21)	12.97	10.98	13.69	14.25	12.53	9.73	13.11	14.74
1495	LASSIK	12.57 (27)	12.59	11.48	13.08	13.20	12.56	11.61	12.51	13.55
1500	EXPRESSO	13.98 (3)	14.23	12.22	15.00	15.48	13.73	11.45	14.55	15.20
1521	REDWING	12.37 (29)	12.25	10.52	12.01	14.22	12.49	9.48	12.82	15.17
1522	BLANCA ROYALE	12.57 (26)	12.29	9.72	12.83	14.33	12.85	9.95	14.66	13.95
1523	BLANCA FUERTE	11.45 (33)	11.19	9.66	11.72	12.19	11.71	8.05	13.62	13.45
1548	CHRISTALLO	12.81 (19)	12.90	11.60	13.50	13.59	12.72	9.27	14.56	14.34
1555	LARIAT	12.67 (23)	12.33	9.51	13.45	14.02	13.00	11.71	13.57	13.73
1605	PALOMA	12.99 (16)	12.88	11.20	13.52	13.92	13.09	10.79	13.87	14.61

Grain Protein % expressed at 12% moisture

Numbers in parentheses indicate relative rank in column.

## 2009 WHEAT STRIPE RUST OVER LOCATION SUMMARY

Entry	Name	Mean (5 Loc)	Stripe Rust				
			Colusa	UC Davis	Sac-SJ Delta	Kings	Fresno
<b>CULTIVARS</b>							
20	ANZA	4.3 (16)	2.8	5.3	2.3	4.8	6.5
112	YECORA ROJO	5.6 (17)	6.3	7.3	6.3	1.8	6.5
788	EXPRESS	2.4 (14)	2.5	3.5	2.8	1.5	1.8
1156	BLANCA GRANDE	2.4 (14)	1.5	6.5	1.0	2.0	1.0
1340	MIKA	1.3 (9)	1.0	2.0	1.0	1.3	1.0
1361	CLEAR WHITE	1.6 (10)	1.0	3.8	1.3	1.0	1.0
1419	PATWIN	1.1 (5)	1.0	1.3	1.0	1.3	1.0
1424	JOAQUIN	2.0 (13)	1.5	4.8	1.0	1.8	1.0
1478	CAL ROJO	1.0 (1)	1.0	1.0	1.0	1.0	1.0
1495	LASSIK	1.0 (1)	1.0	1.0	1.0	1.0	1.0
1500	EXPRESSO	1.0 (1)	1.0	1.0	1.0	1.0	1.0
1521	REDWING	1.1 (5)	1.0	1.3	1.0	1.0	1.0
1522	BLANCA ROYALE	1.8 (12)	1.0	4.0	1.3	1.8	1.0
1523	BLANCA FUERTE	1.1 (5)	1.0	1.0	1.3	1.0	1.0
1548	CHRISTALLO	1.0 (1)	1.0	1.0	1.0	1.0	1.0
1555	LARIAT	1.1 (5)	1.0	1.3	1.0	1.0	1.0
1605	PALOMA	1.6 (10)	2.0	2.8	1.0	1.0	1.0
<b>TRITICALE</b>							
3097	TRICAL BRAND 105	1.1 (1)	1.0	1.3	1.0	1.0	1.0
3156	TRICAL BRAND 118	1.4 (2)	1.3	2.0	1.0	1.0	1.5
3158	TRICAL BRAND 98	4.0 (5)	3.0	5.5	3.5	2.5	5.3
3163	TRICAL BRAND 110	2.7 (4)	1.3	3.3	1.5	3.3	4.0
3164	PACHECO	1.5 (3)	1.5	2.0	1.0	2.0	1.0
	MEAN	1.8	1.6	2.6	1.6	1.5	1.9
	CV	45.9	40.8	45.2	35.6	69.9	29.9
	LSD (.05)	0.5	0.9	1.7	0.8	1.5	0.8

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

Numbers in parentheses indicate relative rank in column.

## 2009 GLENN RAINFED BARLEY TEST

Entry	Name	Type	Yield (lbs/acre)	Test Wt (lbs/bu)	Plant Ht (in)	Net Blotch	Source
<b>CULTIVARS</b>							
603	UC 603	6RSF	3820 (15)	48.9	29	1.0	UC
816	MAX	6RSF	3460 (18)	48.8	19	1.0	WWW
933	UC 933	6RSF	4570 (2)	45.4	25	1.5	UC
951	MELTAN	2RSF	4270 (7)	52.0	23	1.3	ADAMS
969	UC 969	6RSF	3630 (17)	51.4	27	1.0	UC
1047	ISHI	6RSF	4270 (8)	43.5	24	1.0	UC
1134	TAMALPAIS	6RS(N)	3910 (14)	46.1	26	1.0	UC
<b>ADVANCED LINES</b>							
1095	23 IBYT 7	6RSF	4570 (3)	45.0	26	1.3	CIMMYT/ICARDA
1115	UCD C135	6RSF	4160 (10)	47.6	20	1.0	UC
1116	UCD C140	6RSF	3960 (12)	45.8	23	1.3	UC
1118	UCD C147	6RSF	4860 (1)	46.9	25	1.0	UC
1231	UCD 08YP 111	6RSF	4440 (6)	57.1	28	1.0	UC
1232	UCD 08YP 301	6RSF	4490 (4)	46.2	22	2.5	UC
1233	UCD 08YP 244	6RSF	3770 (16)	43.6	23	1.0	UC
1234	UCD 08YP 247	6RSF	3930 (13)	44.8	26	1.0	UC
1235	UCD 08YP 254	6RSF	4220 (9)	44.9	24	1.0	UC
1236	UCD 08YP 258	6RSF	4470 (5)	43.1	26	1.0	UC
1237	WWW BA4513	6RSF	4150 (11)	45.7	24	1.0	WWW
	MEAN		4160	47	24	1.2	
	CV		12	9.1	9.0	30.0	
	LSD (.05)		710	ns	5.0	0.5	

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

Numbers in parentheses indicate relative rank in column.

## 2009 UCD BARLEY TEST

Entry	Name	Type	Yield (lbs/acre)	Test Wt (lbs/bu)	Plant Ht (in)	Lodging Harvest	Powdery Mildew	Net Blotch	Leaf Rust	Stripe Rust	Shatter
<b>CULTIVARS</b>											
603	UC 603	6RSF	5310 (5)	51.0	35	2.0	1.3	4.5	1.3	1.3	1.0
816	MAX	6RSF	3110 (18)	48.9	27	2.5	1.0	5.3	1.0	6.8	1.0
933	UC 933	6RSF	4590 (13)	51.0	33	5.3	1.0	2.3	1.5	1.5	1.0
951	MELTAN	2RSF	3450 (17)	54.0	28	4.3	1.0	6.3	1.0	2.5	1.0
969	UC 969	6RSF	4270 (15)	53.1	36	3.5	1.0	2.8	1.8	1.5	1.3
1047	ISHI	6RSF	4610 (12)	49.4	29	3.5	1.0	3.5	1.0	2.0	1.0
1134	TAMALPAIS	6RS(N)	4810 (10)	57.4	27	3.5	1.8	2.0	1.0	1.3	1.0
<b>ADVANCED LINES</b>											
1095	23 IBYT 7	6RSF	5550 (1)	50.7	35	5.0	1.0	3.8	1.0	1.5	1.0
1115	UCD C135	6RSF	5450 (3)	51.4	29	4.8	2.0	3.5	1.8	1.0	1.0
1116	UCD C140	6RSF	4940 (8)	50.4	32	6.5	1.0	2.0	1.3	1.0	1.0
1118	UCD C147	6RSF	5480 (2)	50.1	34	3.8	2.0	2.8	1.8	1.3	1.0
1231	UCD 08YP 111	6RSF	5320 (4)	51.6	34	1.5	1.3	3.0	1.0	2.5	1.0
1232	UCD 08YP 301	6RSF	4800 (11)	50.8	30	1.8	1.0	2.5	1.3	1.0	1.0
1233	UCD 08YP 244	6RSF	5000 (7)	49.8	31	4.0	1.0	4.8	1.3	2.3	1.0
1234	UCD 08YP 247	6RSF	5190 (6)	49.4	36	2.8	3.3	4.0	1.0	2.8	1.0
1235	UCD 08YP 254	6RSF	4810 (9)	51.1	34	4.8	1.8	4.5	1.3	2.3	1.0
1236	UCD 08YP 258	6RSF	4370 (14)	47.8	31	4.3	1.0	5.8	1.3	2.5	1.0
1237	WWW BA4513	6RSF	3660 (16)	51.8	34	4.3	4.3	4.8	2.0	2.5	1.0
	MEAN		4710	51.1	32	3.8	1.5	3.8	1.3	2.1	1.0
	CV		10.7	2.3	7.1	47.7	56.7	31.8	42.4	39.1	11.6
	LSD (.05)		720	2.5	5.0	2.6	1.2	1.7	ns	1.1	ns

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

Numbers in parentheses indicate relative rank in column.

**TYPE:** 6RSF = 6-ROW SPRING FEED; 2RSF = 2-ROW SPRING FEED; 2RS(N): NAKED 2-ROW SPRING;

6RS(N): NAKED 6-ROW SPRING; 6RSM = 6-ROW SPRING MALT;

6RWF = 6-ROW WINTER FEED; 6RW(H) = 6-ROW WINTER HOODED.

**SOURCE:** ADAMS = ADAMS GRAIN CO., CIMMYT-ICARDA, OSU = OREGON STATE UNIVERSITY;

UA = UNIVERSITY OF ARIZONA; UC = UNIVERSITY OF CALIFORNIA; WWW - WORLD WIDE WHEAT

# 2009 Western Alfalfa & Forage Conference

December 2–4, 2009

Grand Sierra Resort Casino, Reno, NV

## “Improving Your Odds of Profitability”

*Sponsored by the Cooperative Extension Services of California, Nevada, Idaho, Oregon, Arizona, and Washington*  
**PCA and CCA Credits Offered**

**Description:** *This has been a difficult year for alfalfa producers with dismal prices, low sales volume and challenging weather conditions in many areas. This conference is aimed at improving profitability in years like this. The program covers many aspects of alfalfa and forage crop production, from economics to pest management, irrigation and utilization. It is suitable for anyone interested in improving their knowledge of this key segment of western agriculture. The conference features a commercial exhibit area, with 60-80 exhibitors, and is preceded by a special half-day ‘Hands-on Diagnostic Workshop’ (limited enrollment). Attendance at our previous conferences in Reno ranged from 550 to 700 participants, and 60-80 exhibitors. REGISTER NOW to ensure your place at this conference.*

### **Wednesday, December 2, 2009 -Hands-On Alfalfa Diagnostic Workshop (limited participation)**

**12:30 – 1 pm** Workshop Participant Sign-In

**1 – 5:30 pm** **Diagnostic Workshops** will provide attendees with intensive hands-on experience diagnosing important problems in alfalfa production. Small groups will work closely with experts in each area.

**Participants will rotate through each of the following sessions:**

- Soils & Fertilizers –Analysis, Sampling and Interpretation
- Diseases & Nematodes – Identification and IPM Measures
- Weed Identification and Management
- Insect Identification and IPM Practices

**4:00 – 9 pm** Exhibitor Setup

**6 :00– 8 pm** Registration

### **Thursday, December 3, 2009**

6:00 - 8 am Exhibitor Setup

6:30 - 8 am Registration

### **Morning General Session**

#### **Alfalfa Industry and Market Trends**

8:00 am Welcome – Steve Orloff, Symposium Chair, UC Cooperative Extension, Yreka, CA

8:05 Trends in the Alfalfa Industry: Is it really as bad as it looks? – Dan Putnam, Extension Forage Specialist, UC Davis, Davis, CA

8:25 Dairy Outlook: What is the future of dairies in the West? – Bill Van Dam, Alliance of Western Milk Producers, Sacramento, CA

8:50 How Dairies are Dealing with the Current Economic Situation: Impact on forages  
– Mireille Chahine, Extension Dairy Specialist, University of Idaho, Twin Falls, ID

9:15 What Happened to All the Horses and What Are They Eating? – Anne Rodiek, Professor, Dept of Animal Science and Agriculture Education, Cal State University, Fresno, CA

9:40 Discussion

**9:50 Break**

#### **Improving Profitability**

10:20 am Reducing Inputs to Improve Profits: Good or bad idea? – Steve Orloff, Farm Advisor, UCCE, Yreka, CA

10:40 Adapting Cutting Management to Market Conditions – Glenn Shewmaker, Forage Specialist, University of Idaho, Twin Falls, ID

11:00 Panel Discussion: Marketing Your Hay in a Low Priced Year – Dick Schader, Red Rock Ranch, Macdoel, CA; Philip Bowles, Bowles Farming, Los Banos, CA; Norman Beach, San Joaquin Valley Haygrowers Assn., Tracy, CA

11:30 Surviving Difficult Times: Lessons learned from those who have and have not – Bob Boyle, Northwest Farm Credit Services, Salem, OR

11:50 Discussion

**12 - 1:30 pm BANQUET LUNCH**

### **Afternoon Breakout Sessions**

#### **Breakout Session I. Pest Management in Alfalfa**

*(Organizers: Rachael Long, Farm Advisor, UCCE, Woodland, CA and Phil Petersen, Area Extension Educator, WSU, Ephrata, WA)*

1:30 pm Conventional and Organic Methods for Insect Pest Control in Alfalfa Production- Rachael Long, Farm Advisor, UCCE, Woodland, CA

1:50 Control Strategies for Some Difficult to Control Weeds – Mick Canevari, Farm Advisor Emeritus, UCCE, Stockton, CA

2:10 Vertebrate Pest Control in Alfalfa – Michael Slater, Wildlife Biologist, USDA Animal and Plant Health Inspection Service Wildlife Services, La Grande, OR

2:30 Alfalfa Nematodes and their Management – Saad Hafez, Extension Professor, Nematology, University of Idaho, Parma, ID

2:50 Discussion

**3:00 Break**

#### **Breakout Session II. Soils and Irrigation**

*(Organizers: Larry Schwankl, Irrigation Specialist, UC Davis, Parlier, CA and Rob Mikkelsen, Western Director, International Plant Nutrition Institute, Merced, CA)*

1:30 pm How Do You Know Your Lab Results Are Any Good? – Dirk Holstege, Director DANR Analytical Laboratory, UC Davis, Davis, CA

1:50 Site Specific Fertilization of Alfalfa Fields: Improved yield at lower costs? – Andre Biscaro, Farm Advisor, UCCE, Lancaster, CA

- 2:10 Center Pivot Management – Howard Neibling, Extension Water Management Engineer, University of Idaho, Twin Falls, ID
- 2:30 Subsurface Drip Irrigation in Alfalfa: A grower's initial experience – Cannon Michael, Bowles Farming, Los Banos, CA
- 2:50 Discussion
- 3:00 **Break**

**Breakout Session III. Bio-Energy and Alternative Forages**

(Organizers: Steve Fransen, Forage Agronomist, WSU, Prosser, WA; Jay Davidson, Area Forage and Alternative Crops Specialist, UNCE, Fallon, NV)

- 1:30 pm Overview of Bio-Energy Crops and the Conversion Process – Birgitte Ahring, Director Bioproducts, Sciences and Engineering Laboratory, WSU Tri-Cities, Richland, WA
- 1:50 Agronomics of Switchgrass for Biofuel in the West – Steve Fransen, Forage Agronomist, Washington State University, Prosser, WA
- 2:10 Annual Warm-Season Grasses for Bio-Fuel Production in the West – Mike Ottman, Extension Agronomist, University of Arizona, Tucson, AZ
- 2:30 Teff Grass: A new alternative – Don Miller, Director of Product Development, Producer’s Choice Seeds, Nampa, ID
- 2:50 Discussion
- 3:00 **Break**

**3:30 – 5 pm Repeat Concurrent Sessions**

**5:00 - 6 pm Exhibitor’s Reception**

**7:00 pm State Haygrower’s Organization Dinner Meeting-** *Representatives from state haygrower’s associations and national associations – contact your state haygrower’s organization for further information.*

**Friday, December 4, 2009**

**6:15 am CAFA Breakfast**

**General Session**

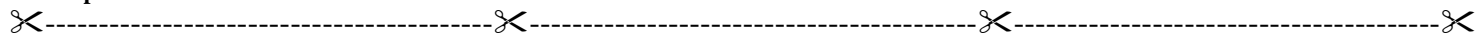
**Water Issues**

- 8:00 am Future of Agricultural Water in the West – Dan Keppen, Executive Director, Family Farm Alliance, Klamath Falls, OR
- 8:25 The impact of Drought on Crop Choice and Water Marketing – Richard Howitt, Agricultural Economist, UC Davis, Davis, CA
- 8:50 Coping with Low Water Years: What strategies can you use? – Blaine Hanson, Irrigation Specialist, UC Davis, Davis, CA
- 9:15 Discussion
- 9:25 **Break**

**Innovations and Future Developments**

- 9:55 am The Future of Alfalfa and Forage Crops – Maria Monteros, Noble Foundation, Ardmore, OK
- 10:20 Low-Lignin Alfalfa: Redefining the Yield/Quality Tradeoff – Dan Undersander, Extension and Research Forage Agronomist, University of Wisconsin, Madison, WI
- 10:45 What’s New from the Alfalfa Industry - (series of brief presentations from the alfalfa industry discussing new innovations and product development)

**12:00 pm ADJOURN**

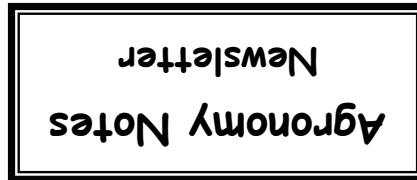


General Registration Form	
2009 Western Alfalfa & Forage Conference (one form per person-please print clearly)	
Name	Company/Ranch
Address	City, State, Zip Code <span style="float: right;">County</span>
Phone	E-mail ( <b>important</b> ). Confirmation is by e-mail only.
<input type="checkbox"/> Pre-Conference Hands on Alfalfa Diagnostic Workshop \$50.00	<input type="checkbox"/> Early Registration (before 11/2/09) \$125.00
<input type="checkbox"/> Extra: Guest Banquet Lunch Ticket \$35.00 Guest name: _____	<input type="checkbox"/> Late Registration (received by 11/23/09) \$150.00
Each Registration includes one copy of the Proceedings in <b>either</b> printed form or on a CD. Additional copies can be ordered below. Please indicate your preference of the complimentary copy by checking one of the following boxes.	
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I am a (Check one) (___ Hay Grower), (___ Hay Industry), (___ Seed Grower), (___ Seed Industry), (___ Other)	
<b>Registering on-line with a credit card? See <a href="http://alfalfa.ucdavis.edu">http://alfalfa.ucdavis.edu</a>.</b> Paying with a check? Use this form.	
Total Enclosed \$ _____ (payable to “UC Regents”)	
Mail your check, payable to “UC Regents,” to Karen Nephew, UCCE, 1720 S. Maple Avenue, Fresno, CA 93702. Registration information/questions, contact Karen Nephew by phone at 559-259-4907, or e-mail to <a href="mailto:sznephew@plantsciences.ucdavis.edu">sznephew@plantsciences.ucdavis.edu</a> . Note: All registration fees will be higher for on-site registration. Refunds subject to \$25 processing fee. No refunds will be issued after November 23.	
<b>Hotel Reservations:</b> Reserve your hotel room at the Grand Sierra Resort and Casino (online at <a href="#">Grand Sierra Reservations</a> or by phone at 800-648-5080). Be sure to mention <b>Western Alfalfa Conference</b> and reserve by November 18, 2009 to obtain the outstanding conference rate of \$44 per night. Luxury rooms and suites are available at a higher rate. Check our website for the extras the hotel will provide to registered guests!	

**Northern Sacramento Valley  
Pest Management for Field Crops Seminar**  
9 am to 12 pm  
Thursday, December 10, 2009

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**2009 Western Alfalfa and Forage Conference**  
December 2-4, 2009  
Reno, NV  
Reminder



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