

**2012\_Fusarium Race 4 Field Ratings SUMMARY TABLE - means and std deviations only**

Hutmacher, Wright and Ulloa if questions:  
 Univ. CA and USDA-ARS contact cell: (559) 260-8957 contact e-mail: rbhutmacher@ucdavis.edu

**Kern and Tulare County screening sites - 2012**

this table includes:

University of CA / USDA -ARS (Hutmacher, Wright, Ulloa et al) - not for reproduction without permission

**Commercially-Available Entries or Advanced Experimentals ONLY**

Evaluation Dates for ratings: TULARE COUNTY SITE (July 8-15) and KERN COUNTY SITE (August 7 to 10)

(a separate file includes all of the entries, including these and all experimentals in 2012 field FOV tests)

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- 4) the rating "WHOLE PLOT FOLIAR RATINGS" tend to be highly variable and affected by overall plant stunting, survival % - a low WHOLE PLOT FOLIAR or PLANT FOLIAR RATING does not necessarily indicate that plants are not infected
- 5) the PLANT HEIGHT and MAIN STEM NODE COUNT ratings were done as a relative indicator of impacts of disease pressure on plant vigor and growth (compare with resistant varieties such as Phy-800, Phy-802RF to evaluate relative effects)

**FOR FOLIAR AND ROOT VASCULAR RATINGS (meaning of index rating values shown):**

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ENTRY # IN OUR 2012 TRIALS	ENTRY NAME Variety Name	TYPE OF COTTON	COMPANY ASSOCIATED WITH CULTIVAR	SCREENING TEST PLOT LOCATION	Averages and standard deviations										PLANT SURVIVAL % AT 7-8 WEEKS AFTER PLANTING AS A % OF INITIAL STAND	
					Average across 3 field replications		PLANT FOLIAR RATING		ROOT VASCULAR STAIN RATING		PLANT HEIGHT (inches)		# OF MAIN STEM NODES (count)		average	std dev
					average	std dev	average	std dev	average	std dev	average	std dev	average	std dev	average	std dev
1	PHY-72	upland	Phytogen	KERN	2.00	0.00	1.87	0.83	2.53	0.52	27.13	3.89	17.60	1.06	90.37	5.62
1	PHY-72	upland	Phytogen	TULARE	2.00	0.00	1.00	1.31	2.13	0.99	21.00	3.61	15.00	1.13	62.70	16.60
2	PHY-725RF	upland	Phytogen	KERN	2.67	0.58	1.67	1.18	2.53	0.52	26.80	4.72	16.73	1.49	88.57	10.02
2	PHY-725RF	upland	Phytogen	TULARE	2.00	1.00	1.20	1.15	2.07	1.16	18.53	4.03	15.07	1.49	70.20	15.10
3	DAYTONA RF	upland	Phytogen	KERN	2.00	0.00	1.00	1.13	1.87	0.52	31.13	3.29	16.67	0.82	87.50	4.35
3	DAYTONA RF	upland	Phytogen	TULARE	1.67	0.58	0.93	1.22	1.73	1.10	20.00	5.10	14.87	1.06	75.60	8.10
4	FM1845LLB2	upland	Bayer	KERN	2.00	0.00	1.00	1.20	2.07	0.46	28.60	3.27	16.73	1.22	95.80	2.00
4	FM1845LLB3	upland	Bayer	TULARE	1.33	0.58	0.67	0.82	2.40	0.99	18.13	4.90	14.60	1.68	74.10	21.00
5	FM 2484 B2F	upland	Bayer	KERN	0.00	0.00	0.07	0.26	1.60	0.63	34.00	2.59	18.00	1.31	97.67	2.02
5	FM 2484 B2F	upland	Bayer	TULARE	1.00	0.00	0.07	0.26	1.40	0.91	22.53	3.31	16.33	1.29	90.30	1.70
6	FM 1944GLB2	upland	Bayer	KERN	2.00	0.00	1.07	1.03	2.27	0.46	34.27	3.69	17.80	1.21	98.00	3.46
6	FM 1944GLB3	upland	Bayer	TULARE	0.67	0.58	0.13	0.35	1.53	1.19	22.53	1.85	15.93	1.03	81.10	10.80
7	FM 2989GLB2	upland	Bayer	KERN	2.00	0.00	0.60	0.91	2.47	0.52	32.13	3.07	18.00	1.13	91.37	14.95
7	FM 2989GLB3	upland	Bayer	TULARE	0.33	0.58	0.07	0.26	1.53	0.64	22.67	1.91	15.93	1.44	83.30	16.90
8	ST 5445LLB2	upland	Bayer	KERN	2.00	0.00	0.80	0.94	1.80	0.56	30.00	3.61	17.07	0.80	95.03	2.84
8	ST 5445LLB3	upland	Bayer	TULARE	1.33	1.15	0.73	1.03	1.87	1.06	21.73	6.03	14.93	1.16	85.90	10.90
9	PHY-800	Pima	Phytogen	KERN	1.33	1.15	0.53	0.92	1.07	0.46	36.93	1.94	18.20	1.15	94.07	3.74
9	PHY-800	Pima	Phytogen	TULARE	0.33	0.58	0.00	0.00	1.13	0.74	22.33	3.27	15.73	1.28	81.80	8.70
10	DP-360	Pima	Olvey	KERN	0.67	1.15	0.33	0.72	1.67	0.62	33.53	2.33	17.40	1.35	91.73	5.06
10	DP-360	Pima	Olvey	TULARE	0.33	0.58	0.13	0.35	0.67	0.62	24.13	1.64	16.40	0.91	93.10	3.20
11	DP-357	Pima	Olvey	KERN	3.33	0.50	2.07	1.07	2.21	0.58	17.00	3.96	16.36	1.15	29.53	20.46
11	DP-357	Pima	Olvey	TULARE	3.00	1.00	0.87	0.83	2.00	0.76	14.13	5.88	13.67	2.26	43.23	23.60

Univ. California and USDA-ARS Fusarium-Race 4 Screenings (TWO SITES: Kern County and Tulare County sites - 2012)

revised January 24, 2013 (rbh)

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- 1) averages and standard deviations are shown for each cultivar and test plot location in 2012 trials (average and standard deviation were calculated based on 3 replicate plots)
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ENTRY # IN OUR TRIALS	ENTRY NAME Variety Name	TYPE OF COTTON	COMPANY ASSOCIATED WITH CULTIVAR	SCREENING TEST PLOT LOCATION	Averages and standard deviations Average across 3 field replications across 15 plants (5 plants per replication, 3 field replications) *all ratings shown done approximately 7 to 8 weeks after emergence												PLANT SURVIVAL % AT 7-8 WEEKS AFTER PLANTING AS A % OF INITIAL STAND	
					WHOLE PLOT FOLIAR RATING	PLANT FOLIAR RATING	ROOT VASCULAR STAIN RATING	PLANT HEIGHT (inches)	# OF MAIN STEM NODES (count)	average	std dev	average	std dev	average	std dev	average	std dev	average
12	11R158 R2P	Pima	Olvey	KERN	1.33	1.15	0.27	0.70	1.27	0.46	35.07	2.28	17.73	1.16	91.27	4.01		
12	11R158 R2P (in 2012 Pima variety trial yield results)	Pima	Olvey	TULARE	0.00	0.00	0.00	0.00	0.87	0.52	24.00	1.96	15.60	0.83	83.30	6.30		
13	11R130 R2P	Pima	Olvey	KERN	3.67	0.58	1.87	1.06	2.73	1.10	15.27	4.17	15.40	1.24	37.43	24.16		
13	11R130 R2P (in 2012 Pima variety trial yield results)	Pima	Olvey	TULARE	2.00	1.73	0.73	1.03	2.53	0.52	17.33	3.96	14.93	0.96	38.50	14.10		
14	PHY-802RF	Pima	Phytogen	KERN	0.33	0.58	0.00	0.00	1.07	0.80	35.00	3.70	18.40	0.83	95.17	6.71		
14	PHY-802RF	Pima	Phytogen	TULARE	0.00	0.00	0.08	0.26	0.73	0.70	24.60	1.76	16.07	1.58	92.00	5.80		
15	PHY-805RF	Pima	Phytogen	KERN	2.33	1.15	0.40	0.91	1.47	0.74	33.80	4.04	18.40	1.50	65.20	9.03		
15	PHY-805RF	Pima	Phytogen	TULARE	2.00	0.00	0.53	0.99	1.20	1.15	21.33	3.58	15.67	2.02	73.30	16.90		
16	PX8262 RF	Pima	Phytogen	KERN	0.00	0.00	0.00	0.00	1.80	0.77	37.87	2.92	18.27	1.71	92.77	3.75		
16	PX8262 RF	Pima	Phytogen	TULARE	1.00	1.00	0.13	0.52	0.73	0.88	23.67	1.88	16.00	0.93	86.60	3.80		
17	DP-340	Pima	Monsanto	KERN	4.00	0.00	2.07	1.03	2.13	0.83	16.40	3.78	16.40	1.12	32.57	15.24		
17	DP-340	Pima	Monsanto	TULARE	2.67	1.53	0.73	0.96	2.53	0.52	18.40	3.68	14.87	1.36	53.00	21.50		
33	FM9170B2F	Upland	Bayer	KERN	1.67	0.58	0.33	0.72	1.47	0.52	33.60	2.03	18.00	1.36	94.80	1.40		
33	FM9170B2F	Upland	Bayer	TULARE	1.00	1.00	0.00	0.00	1.00	0.85	22.53	2.10	15.33	1.45	83.50	9.30		
34	BX1346 GLB2	Upland	Bayer	KERN	2.00	0.00	0.87	1.13	2.27	0.59	30.40	4.60	16.67	1.05	88.90	10.72		
34	BX1346 GLB3 (now available as: ST-4946GLB2)	Upland	Bayer	TULARE	1.00	1.00	0.13	0.52	1.40	0.83	21.93	2.87	15.47	0.83	95.00	4.00		
36	BX1348 GLB2	Upland	Bayer	KERN	2.00	0.00	1.40	1.06	2.20	0.86	29.20	4.46	17.93	1.33	93.07	3.62		
36	BX1348 GLB3 (now available as: (ST-6448GLB2)	Upland	Bayer	TULARE	1.67	0.58	0.87	0.99	1.87	1.30	17.47	6.35	14.67	1.45	63.20	14.50		
37	ST4145 LLB2	Upland	Bayer	KERN	2.33	0.58	1.67	0.98	2.07	0.80	27.33	2.02	17.00	0.93	87.30	15.86		
37	ST4145 LLB3	Upland	Bayer	TULARE	2.67	0.58	1.00	0.93	2.93	0.59	18.60	4.69	14.33	1.50	69.90	19.50		

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					average	std dev	average	std dev	average	std dev	average	std dev	average	std dev	average	std dev		
42	PHY-499WRF	Upland	Phytogen	KERN	2.67	0.58	2.00	0.53	2.60	0.63	30.20	3.51	17.07	1.33	89.53	1.32		
42	PHY-499WRF	Upland	Phytogen	TULARE	2.00	0.00	0.60	1.06	1.40	1.18	24.13	3.80	15.33	1.35	88.40	8.50		
65	HA-211	hybrid ?	Hazera	KERN	1.33	1.15	0.80	1.01	1.93	0.70	37.73	4.33	19.07	1.83	97.53	2.79		
65	HA-211	hybrid ?	Hazera	TULARE	0.00	0.00	0.07	0.26	1.40	0.74	27.87	3.81	15.27	1.67	91.00	3.30		
66	YD-670	hybrid? Upland'	Hazera	KERN	0.67	1.15	0.80	0.94	1.73	0.59	45.07	2.87	20.53	1.25	94.40	2.10		
66	YD-670	hybrid? Upland'	Hazera	TULARE	0.33	0.58	0.00	0.00	0.87	0.92	30.07	2.43	16.60	1.40	87.40	6.20		
67	YD-690	hybrid? Upland'	Hazera	KERN	2.00	0.00	0.67	0.98	1.47	0.52	40.07	1.98	18.33	1.35	84.30	4.73		
67	YD-690	hybrid? Upland'	Hazera	TULARE	0.00	0.00	0.00	0.00	1.13	0.92	28.80	3.28	16.00	1.07	77.60	6.80		
68	YD-701	hybrid? Upland'	Hazera	KERN	1.67	0.58	1.20	1.08	1.80	0.68	39.87	4.61	19.93	1.91	88.90	7.39		
68	YD-701	hybrid? Upland'	Hazera	TULARE	0.00	0.00	0.00	0.00	1.00	0.76	30.87	2.85	17.93	1.03	84.60	4.60		
69	YD-1432	hybrid? Upland'	Hazera	KERN	0.00	0.00	0.00	0.00	2.00	0.38	41.67	2.13	20.00	1.73	96.83	3.88		
69	YD-1433	hybrid? Upland'	Hazera	TULARE	0.00	0.00	0.00	0.00	1.40	0.91	28.60	3.36	17.28	1.03	83.60	6.80		
70	FM 1740B2F	Upland	Bayer	KERN	2.00	0.00	1.47	1.06	2.00	0.53	31.93	3.95	17.40	1.24	89.77	14.35		
70	FM 1740B2F	Upland	Bayer	TULARE	1.67	0.58	0.40	0.74	1.67	0.82	21.40	2.26	15.40	1.35	86.70	5.80		
71	DP-744	Pima - CHECK	Monsanto	KERN	4.00	0.00	2.73	0.59	3.20	0.86	10.87	2.88	14.27	1.28	19.17	10.16		
71	DP-744	Pima - CHECK	Monsanto	TULARE	4.00	0.00	1.93	0.96	3.40	0.74	10.60	3.40	12.27	2.09	26.10	7.40		
72	ST 5288 B2F	Upland	Bayer	KERN	2.00	0.00	1.13	0.99	2.13	0.52	32.47	3.44	17.13	1.64	88.27	12.33		
72	ST 5288 B2F	Upland	Bayer	TULARE	2.00	0.00	0.87	0.99	1.93	0.88	19.20	4.44	13.67	1.40	77.30	4.10		
73	ST 5458 B2F	Upland	Bayer	KERN	2.00	0.00	1.80	1.01	2.20	0.56	28.00	3.51	16.27	0.80	88.50	11.10		
73	ST 5458 B2F	Upland	Bayer	TULARE	1.33	1.15	0.87	1.30	1.60	1.06	23.20	4.35	15.27	1.28	89.60	4.70		
74	FM 2011 GT	Upland	Bayer	KERN	2.00	0.00	1.00	0.85	1.93	0.80	30.07	2.31	17.40	0.74	88.20	13.95		
74	FM 2011 GT	Upland	Bayer	TULARE	1.00	0.00	0.40	0.83	1.13	1.25	20.87	3.23	15.40	1.12	81.60	7.60		
75	FM 9250 GL	Upland	Bayer	KERN	2.00	0.00	1.27	0.88	2.33	0.62	28.27	4.42	18.07	1.03	89.80	12.26		

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					WHOLE PLOT FOLIAR RATING	std dev	PLANT FOLIAR RATING	std dev	ROOT VASCULAR STAIN RATING	std dev	PLANT HEIGHT (inches)	std dev	# OF MAIN STEM NODES (count)	std dev	average	std dev
75	FM 9250 GL	Upland	Bayer	TULARE	1.33	0.58	0.33	0.82	2.07	0.70	21.80	4.84	16.07	2.02	82.20	6.40
76	PHY-375 WRF	Upland	Phytogen	KERN	2.00	0.00	1.00	1.00	2.33	0.49	31.87	4.49	17.27	1.10	95.70	5.65
76	PHY-375 WRF	Upland	Phytogen	TULARE	1.33	0.58	0.53	0.99	2.00	0.65	21.13	4.19	15.87	0.52	64.70	10.30
77	PHY-755 WRF	Upland	Phytogen	KERN	2.00	0.00	1.00	1.00	2.00	0.65	30.93	2.96	17.87	0.92	82.67	18.30
77	PHY-755 WRF	Upland	Phytogen	TULARE	1.33	0.58	0.80	1.21	1.87	1.25	21.40	3.44	15.40	1.24	76.40	15.70
78	DP-161 B2RF	Upland	Monsanto	KERN	1.33	0.58	0.20	0.56	1.87	0.74	34.93	4.38	17.20	1.15	100.00	0.00
78	DP-161 B2RF	Upland	Monsanto	TULARE	1.67	0.58	0.60	0.99	1.87	1.30	21.07	3.65	15.33	0.98	65.60	11.60
79	DP-0912 B2RF	Upland	Monsanto	KERN	1.67	0.58	0.53	0.92	2.13	0.52	34.33	3.72	17.00	1.20	93.70	5.51
79	DP-0912 B2RF	Upland	Monsanto	TULARE	0.67	0.58	0.00	0.00	0.67	0.82	24.60	3.81	15.53	0.92	81.90	11.30
80	FM-9058 F	Upland	Bayer	KERN	2.00	0.00	1.07	1.03	1.93	0.70	28.00	2.62	18.13	0.83	90.03	9.37
80	FM-9058 F	Upland	Bayer	TULARE	0.33	0.58	0.13	0.35	1.53	1.06	21.40	2.23	15.93	1.28	82.30	9.00
81	PHY-725 WRF	Upland	Phytogen	KERN	2.00	0.00	1.33	1.11	2.60	0.83	26.60	5.42	16.80	1.70	93.30	5.84
81	PHY-725 WRF	Upland	Phytogen	TULARE	2.33	0.58	0.87	1.19	2.33	1.23	20.53	4.52	15.80	1.08	72.30	0.30
122	PHY-800	Pima - CHECK	Phytogen	KERN	1.33	1.15	0.60	0.74	1.33	0.49	34.80	2.48	17.13	1.06	91.37	7.49
122	PHY-800	Pima - CHECK	Phytogen	TULARE	1.33	0.58	0.20	0.56	1.00	0.85	23.07	3.03	15.73	1.16	91.60	7.40
152	DP 393	Upland	Monsanto	KERN	2.00	0.00	1.20	1.01	1.73	0.80	29.73	2.87	16.67	1.50	98.33	1.46
152	DP 393	Upland	Monsanto	TULARE	2.67	0.58	1.07	0.96	2.27	0.70	19.67	4.76	13.73	1.58	77.70	10.00
153	FM 958	Upland	Bayer	KERN	2.00	0.00	1.60	0.91	2.00	0.76	26.00	3.78	18.07	0.70	89.43	11.03
153	FM 958	Upland	Bayer	TULARE	1.33	0.58	0.47	0.74	1.80	0.77	18.47	4.03	16.73	1.62	74.90	15.80
154	SG 105	Upland	Suregrow-DPL	KERN	2.00	0.00	0.47	0.83	2.20	0.56	32.07	3.69	18.33	0.98	92.33	3.88
154	SG 105	Upland	Suregrow-DPL	TULARE	1.33	1.15	0.67	0.90	1.67	0.90	21.27	4.71	15.20	1.42	86.20	15.10