2012_Fusarium Race 4 Field Ratings

Kern and Tulare County screening sites - 2012

SUMMARY TABLE - means and std deviations only

All Entries in Field Screening Trials included

Hutmacher, Wright and Ulloa

Univ. CA and USDA-ARS

ENITOV #

if questions: contact cell: (559) 260-8957

Averages and standard deviations

contact e-mail: rbhutmacher@ucdavis.edu

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CODEENING A.....

ENTRY#			COMPANY		Average acros				nts per replica						SURVIVAL %	
IN OUR 2012	ENTRY NAME	TYPE OF	COMPANY ASSOCIATED	TEST PLOT	3 field replication		LANT FOLIA		approximately ROOT VASC		PLANT	ergence	# OF MAIN	CTEM	7-8 WEEKS A	
TRIALS	Variety Name	COTTON	WITH CULTIVAR	LOCATION	FOLIAR RATIN		RATING	ĸ	STAIN RATIN		HEIGHT (inc	hes)	NODES (co		OF INITIAL S	
INALO	variety (varie	COTTON	WITH COLITIVAR	LOCATION	average	std dev	average	std dev		std dev	average	std dev		std dev		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
		apiana	y.ogo	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
			,	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
		·	, 0	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
				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
				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
				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
				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
				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
				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
				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
				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
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
				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

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ENTRY#					Average acros				nts per replica						SURVIVAL %	
IN OUR	ENTEN/ NAME	TVDE 05	COMPANY	TEST PLOT	3 field replicati		'all ratings sh 'LANT FOLIA		approximately			ergence	# OF MAIN	OTEM	7-8 WEEKS	
2012 TRIALS	ENTRY NAME Variety Name	TYPE OF COTTON	ASSOCIATED WITH CULTIVAR	LOCATION	WHOLE PLOT FOLIAR RATIF		RATING	K	ROOT VASC STAIN RATIN		PLANT HEIGHT (ind	chae)	WODES (co		PLANTING A OF INITIAL S	
TRIALO	variety (varie	COTTON	WIIII COLITIVAI	LOCATION	average	std dev	average	std dev		std dev	average	std dev		std dev		std dev
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
10	1111100 1121	i iiii	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
				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
				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
10	F X0202 IXI	riiia	Filylogen	TULARE	1.00	1.00	0.00	0.52	0.73	0.77	23.67	1.88	16.00	0.93	86.60	3.80
				TODAKE	1.00	1.00	0.10	0.02	0.70	0.00	20.01	1.00	10.00	0.00	00.00	0.00
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
				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
18	11R112 B2R2	Upland	Monsanto	KERN	1.67	0.58	1.07	0.88	1.80	0.41	34.67	4.39	18.60	1.24	95.03	3.50
				TULARE	1.00	0.00	0.00	0.00	1.53	0.83	24.07	3.06	15.60	0.74	82.30	4.30
19	11R124 B2R2	Upland	Monsanto	KERN	1.33	1.15	0.40	0.83	2.20	0.56	35.33	3.09	17.20	1.15	91.97	13.91
19	11K124 DZRZ	Opianu	IVIONSANIO	TULARE	2.00	1.13	0.40	1.06	2.20	1.13	18.60	3.09	14.13	1.13	80.70	1.90
				TOLANE	2.00	1.00	0.07	1.00	2.10	1.15	10.00	3.02	14.15	1.41	00.70	1.50
20	11R136 B2R2	Upland	Monsanto	KERN	2.00	0.00	1.60	1.12	2.60	0.51	25.53	3.91	17.20	1.01	98.23	3.06
				TULARE	2.67	0.58	1.40	0.91	2.40	0.91	16.13	3.62	14.80	1.37	69.10	8.40
21	11R154 B2R2	Upland?hyb	rid Monsanto	KERN	2.00	0.00	1.53	1.19	2.20	0.68	28.13	3.42	16.87	1.25	90.73	3.15
				TULARE	1.67	0.58	0.93	1.22	1.33	0.98	20.33	4.81	14.60	1.40	88.00	9.10
	440450 0000			KEDNI	0.00	0.50	4.00		4.00		04.07	4.00	47.07	4.00	04.00	
22	11R159 B2R2	Upland	Monsanto	KERN TULARE	2.33 2.00	0.58	1.20 0.87	1.01 1.19	1.93	0.70 1.39	31.07 23.13	4.80 3.70	17.07 15.27	1.03 1.22	91.83	7.09 8.00
				TULARE	2.00	0.00	0.87	1.19	1.73	1.39	23.13	3.70	15.27	1.22	78.40	8.00
23	12R242 B2R2	Upland	Monsanto	KERN	2.00	0.00	1.13	1.06	2.27	0.46	27.93	5.34	16.00	1.07	92.47	6.56
				TULARE	2.00	0.00	1.00	1.25	1.93	0.70	20.80	4.55	13.80	1.86	80.30	7.00
24	12R249 B2R2	Upland	Monsanto	KERN	1.33	1.15	0.53	0.90	2.60	0.63	33.33	4.17	17.07	1.22	88.70	16.63
				TULARE	1.33	0.58	0.40	0.63	1.47	0.83	22.87	3.81	15.47	0.92	82.00	11.00

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IN OUR			COMPANY	TEST	3 field replicati				approximatel			ergence			_7-8 WEEKS /	
2012	ENTRY NAME	TYPE OF	ASSOCIATED	PLOT	WHOLE PLOT		PLANT FOLIA	R	ROOT VASC		PLANT		# OF MAIN		PLANTING A	
TRIALS	Variety Name	COTTON	WITH CULTIVAR	LOCATION	FOLIAR RATIN		RATING	-4-1-1	STAIN RATIN	std dev	HEIGHT (inc	std dev	NODES (co		OF INITIAL S	
25	12R251 B2R2	Upland	Monsanto	KERN	average 2.00	std dev 0.00	average 0.80	std dev 1.01	average 2.33	0.72	average 31.47	3.29	average 16.60	std dev 0.63	average 95.30	std dev 4.91
23	IZINZOT DZINZ	Opianu	Monsanto	TULARE	1.33	0.58	0.20	0.56	0.80	0.72	23.13	2.77	15.13	1.51	87.70	1.10
				TOLANE	1.55	0.56	0.20	0.50	0.00	0.54	23.13	2.11	13.13	1.51	07.70	1.10
26	12R244 R2	Upland	Monsanto	KERN	0.67	1.15	0.60	0.91	2.00	0.76	37.67	3.35	18.13	1.64	97.10	1.22
				TULARE	1.00	0.00	0.27	0.07	1.73	0.88	24.20	3.28	16.20	1.08	85.70	5.50
27	12R224 B2R2	Upland	Monsanto	KERN	2.00	0.00	1.00	1.13	1.87	0.64	31.33	3.96	17.33	1.05	87.17	6.65
				TULARE	2.67	0.58	1.07	0.96	1.80	1.08	21.87	2.47	15.27	0.96	76.60	9.40
				==												
28	12R245 B2R2	Upland	Monsanto	KERN	2.00	0.00	1.47	1.13	1.67	0.72	27.80	2.73	15.87	0.99	92.70	10.55
				TULARE	2.00	0.00	0.93	1.16	1.60	0.99	18.87	3.66	13.67	0.98	65.90	8.70
29	12R241 B2R2	Upland	Monsanto	KERN	2.00	0.00	0.80	1.01	1.33	0.49	30.53	3.20	16.00	1.51	88.30	2.25
				TULARE	2.33	1.15	0.67	1.05	1.73	0.96	19.80	4.52	13.53	1.55	66.30	4.40
30	12R237 B2R2	Upland	Monsanto	KERN	2.00	0.00	1.07	1.10	1.80	0.68	32.27	3.37	16.80	1.01	97.87	2.20
30	IZINZOT DZINZ	Opiana	Worlsanto	TULARE	2.33	0.58	0.73	0.96	1.87	0.74	20.60	6.43	13.93	1.44	77.00	4.10
31	12R215 B2R2	Upland	Monsanto	KERN	1.67	0.58	0.53	0.83	2.20	0.68	34.80	2.91	17.33	1.05	92.90	6.17
				TULARE	2.00	0.00	1.27	0.96	2.53	0.64	19.40	2.67	15.47	1.25	69.20	9.10
32	12R234 B2R2	Upland	Monsanto	KERN	2.33	0.58	2.07	0.80	2.07	0.59	28.80	3.38	15.73	1.39	91.17	7.63
				TULARE	1.67	0.58	0.33	0.90	1.47	0.99	25.07	2.99	15.13	1.25	90.50	5.20
00	FM9170B2F	Unioni	D	KERN	1.67	0.58	0.33	0.72	1.47	0.50	00.00	0.00	18.00	1.36	04.00	4.40
33	FM9170B2F	Upland	Bayer							0.52	33.60	2.03			94.80	1.40
				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
				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
35	BX1347 GLB2	Upland	Bayer	KERN	2.00	0.00	0.87	0.99	2.20	0.77	28.33	2.35	17.40	1.35	88.07	15.03
00	DATIONI OLDE	Opiana	Dayor	TULARE	1.33	0.58	0.27	0.59	1.20	1.01	20.80	4.13	15.67	0.98	72.30	15.90
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
				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

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INIALO	variety (varie	COTTON	WIIITOOLIIVAK	LOCATION	average	std dev	average	std dev		std dev	average	std dev		std dev		std dev
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
٥.	0 0 2232	Opiana	Dayo.	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
38	PX7040-05WRF	Upland?	Phytogen	KERN	2.67	0.58	1.67	1.18	2.87	0.74	23.00	4.66	16.33	1.54	69.73	10.45
				TULARE	2.67	0.58	1.40	1.24	2.33	1.45	21.40	3.44	15.67	1.50	69.70	7.50
20	PX-7040-011WRF	Liniand O	Dhutanan	KERN	2.33	0.58	2.13	0.83	2.67	0.90	25.27	2.76	16.20	1.26	83.23	3.65
39	PX-7040-011WKF	Opiano ?	Phytogen	TULARE	2.33	0.58	0.87	0.83	1.73	1.39	25.27 24.40	4.21	15.73	0.80	74.60	3.65 17.70
				TULARE	2.33	0.56	0.87	0.92	1.73	1.39	24.40	4.21	15.73	0.80	74.00	17.70
40	PX-7064-05WRF	Upland?	Phytogen	KERN	2.00	0.00	1.27	0.88	2.53	0.64	33.07	3.17	18.00	1.00	89.03	13.12
			, 5 .	TULARE	1.00	1.00	0.33	0.90	1.13	0.99	22.53	2.75	15.33	1.40	88.60	3.50
41	PX7105-02WRF	Upland?	Phytogen	KERN	2.33	0.58	1.60	0.74	2.67	0.72	23.60	1.84	16.33	1.18	88.63	8.22
				TULARE	2.67	1.15	1.00	1.00	1.80	1.21	19.27	5.97	15.93	0.96	65.00	25.40
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	FIT1-499WKF	Opiano	riiylogeii	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
				TOLAKE	2.00	0.00	0.00	1.00	1.40	1.10	24.10	3.00	10.00	1.00	00.40	0.50
43	OA-FOV1	Pima ?	Olvey	KERN	1.33	1.15	0.67	0.98	1.20	0.41	36.47	1.13	18.40	1.18	84.50	9.31
				TULARE	0.33	0.58	0.00	0.00	0.40	0.51	24.93	2.12	15.80	1.61	83.30	4.30
4.4	04 501/0	Unland	Ohm	KEDN	4.07	0.50	0.47	0.00	0.00	0.70	00.07	0.50	47.00	4.40	00.07	4.00
44	OA-FOV2	Upland	Olvey	KERN TULARE	1.67 0.67	0.58 0.58	0.47 0.07	0.83	2.33 1.87	0.72 1.13	39.27 24.60	3.59 2.23	17.60 15.80	1.18 1.15	96.07 85.40	4.96 7.00
				TOLAKE	0.67	0.56	0.07	0.26	1.07	1.13	24.00	2.23	13.60	1.15	00.40	7.00
45	OA-FOV3	Pima ?	Olvey	KERN	0.33	0.53	0.00	0.00	1.80	0.56	34.87	1.77	19.13	1.19	94.00	2.17
			,	TULARE	0.33	0.58	0.00	0.00	0.87	1.06	23.53	2.07	16.13	0.99	87.20	2.10
46	OA-FOV4	Upland?	Olvey	KERN	0.67	0.58	0.07	0.26	1.80	0.56	30.40	5.14	16.53	1.36	98.00	3.46
				TULARE	2.67	1.53	0.67	0.98	2.13	1.13	19.93	4.27	14.33	1.35	82.00	9.30
47	OA-FOV5	Pima	Olvey	KERN	0.67	1.15	0.13	0.52	1.20	0.56	34.13	4.39	18.80	1.70	93.60	2.91
٠,	OA-1 OVS	i iiila	Olvey	TULARE	0.00	0.00	0.13	0.26	0.47	0.64	24.47	2.33	15.27	0.80	90.30	8.50
				TOLAKE	0.00	0.00	0.07	0.20	0.47	0.04	24.41	2.00	13.27	0.00	30.30	0.50
48	OA-FOV6	Upland	Olvey	KERN	2.67	0.58	1.67	1.45	2.53	0.64	26.20	4.00	16.93	1.16	98.97	1.79
		•	•	TULARE	2.33	1.53	0.47	0.83	2.13	1.06	20.93	4.93	15.93	1.39	67.30	12.70

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Univ. CA and USDA-ARS

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intermediate rating #'s = relative indicators of severity of foliar or vascular staining (higher numbers indicate worse disease injury)

ENTEN "				COREENING			Averages and				I P P				PLANT	
ENTRY # IN OUR			COMPANY	TEST	Average acros				nts per replicat approximately						SURVIVAL % 7-8 WEEKS	
2012	ENTRY NAME	TYPE OF	ASSOCIATED	PLOT	3 field replication		LANT FOLIA		ROOT VASC		PLANT	ergence	# OF MAIN S		PLANTING A	
TRIALS	Variety Name	COTTON	WITH CULTIVAR	LOCATION	FOLIAR RATIN		RATING	`	STAIN RATIN		HEIGHT (inc	hes)	NODES (cou		OF INITIAL S	
THURLE	variety realite	0011011	WIIII OOLIIWAR	LOOKHON	average	std dev	average	std dev	average	std dev		std dev		std dev	average	std dev
49	OA-FOV7	Upland	Olvey	KERN	1.67	0.58	0.47	0.92	1.53	0.74	29.53	5.88	17.07	1.28	81.47	18.61
		-	,	TULARE	1.33	1.15	0.60	0.83	1.80	0.94	22.60	3.64	15.60	0.63	82.30	4.40
				.022	1.00		0.00	0.00		0.01	22.00	0.0 .	.0.00	0.00	02.00	
50	OA-FOV8	Upland	Olvey	KERN	2.00	0.00	0.93	0.96	1.60	0.63	29.60	2.56	15.60	0.99	87.33	5.25
00	0.11.010	Opiana	0.10)	TULARE	2.00	0.00	0.67	0.90	1.20	1.32	20.00	3.72	14.40	1.24	84.80	9.90
				.022	2.00	0.00	0.01	0.00	20		20.00	02			000	0.00
51	OA-FOV9	Upland	Olvey	KERN	2.33	0.58	1.00	1.00	2.20	1.08	33.07	4.27	18.00	1.31	89.37	7.34
				TULARE	1.67	0.58	0.67	0.82	1.53	0.99	24.67	4.01	15.67	0.98	80.30	7.10
52	OA-FOV10	Pima ?	Olvey	KERN	0.67	1.15	0.33	0.72	1.33	0.49	32.20	2.51	18.40	1.59	92.63	9.29
			•	TULARE	0.67	0.58	0.20	0.41	0.86	0.95	21.47	3.60	15.53	0.92	96.40	4.50
53	OA-FOV11	Upland	Olvey	KERN	2.00	0.00	1.53	1.19	2.20	0.77	30.40	3.31	17.07	1.58	92.83	3.72
		·	•	TULARE	1.33	1.15	0.47	0.83	1.67	1.11	25.67	2.85	16.20	1.52	86.00	2.40
54	OA-FOV12	Pima	Olvey	KERN	3.33	0.58	1.93	1.16	2.27	0.80	15.40	3.60	16.53	1.06	37.87	18.15
				TULARE	2.67	0.58	1.27	1.10	2.73	0.96	14.13	3.52	13.73	2.09	44.30	0.50
55	OA-FOV13	Upland	Olvey	KERN	2.00	0.00	0.60	1.06	2.13	0.35	26.67	3.44	17.13	1.06	92.73	2.84
				TULARE	2.00	1.00	0.67	1.05	1.87	0.92	20.93	4.82	15.60	1.24	88.30	5.80
56	OA-FOV14	Pima	Olvey	KERN	3.67	0.58	2.27	1.10	2.00	0.65	16.33	3.46	16.40	1.45	41.17	9.08
				TULARE	3.33	0.58	1.33	1.35	2.67	0.98	14.40	4.67	14.27	2.40	45.60	11.20
57	OA-FOV15	Pima	Olvey	KERN	0.00	0.00	0.00	0.00	1.40	0.63	36.40	1.80	17.93	1.03	99.23	1.33
				TULARE	0.33	0.58	0.13	0.35	0.73	0.80	22.13	2.50	15.07	0.80	91.90	3.10
58	OA-FOV16	Pima ?	Olvey	KERN	4.00	0.00	2.29	0.99	2.43	0.65	13.14	3.21	14.64	1.39	17.13	11.51
				TULARE	3.33	0.58	1.00	0.85	2.60	0.74	13.13	6.60	12.60	2.77	28.50	16.60
	04 501447	D: 0	01	KEDN	4.00		0.40				44.00	0.07	44.40	4	40.00	40.00
59	OA-FOV17	Pima ?	Olvey	KERN	4.00	0.00	2.43	0.94	2.64	0.93	11.93	2.97	14.43	1.79	16.20	10.30
				TULARE	3.33	1.15	1.27	0.79	2.55	1.21	15.45	4.41	14.00	1.84	32.10	16.10
00	04 50144	Unional	Observe	KEDN	0.00	0.00	4.40	4.40	4.07	0.70	00.07	0.04	40.40	4.00	05.00	40.04
60	OA-FOV18	Upland	Olvey	KERN TULARE	2.00 2.33	0.00 0.58	1.13 0.60	1.13 1.06	1.67	0.72 1.39	33.67	6.04	16.40	1.06	85.83	13.84
				TULARE	2.33	0.58	0.60	1.06	1.73	1.39	24.93	4.82	15.87	1.19	84.30	16.20

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CODEENING A.....

ENTRY#					Average acros				nts per replica						SURVIVAL %	
IN OUR 2012	ENTRY NAME	TYPE OF	COMPANY ASSOCIATED	TEST PLOT	3 field replicati WHOLE PLOT		all ratings sh		ROOT VASC		eks after em PLANT	ergence	# OF MAIN	CTEM	7-8 WEEKS A	
TRIALS	Variety Name	COTTON	WITH CULTIVAR	LOCATION	FOLIAR RATI		RATING	ĸ	STAIN RATIN		HEIGHT (inc	chae)	NODES (co		OF INITIAL S	
INALO	variety (varie	0011014	WITH COLITIVAL	LOCATION	average	std dev	average	std dev		std dev		std dev		std dev		std dev
61	OA-FOV19	Upland	Olvey	KERN	2.00	0.00	1.07	1.22	2.33	0.49	34.40	3.04	17.67	0.72	99.43	0.98
-			J,	TULARE	2.00	1.00	0.53	0.74	1.80	0.86	20.67	2.92	15.27	1.28	86.70	2.30
62	OA-FOV20	Upland	Olvey	KERN	2.00	0.00	0.67	0.90	2.00	0.65	30.93	3.79	18.07	0.70	97.53	4.27
				TULARE	1.33	0.58	0.20	0.56	1.67	0.82	22.87	3.44	16.20	1.21	88.50	9.60
63	DP-744	Pima - CHE	CK Monsanto	KERN	4.00	0.00	2.73	1.16	3.47	0.99	11.33	3.04	14.27	1.79	26.10	14.83
				TULARE	3.33	1.15	1.87	1.30	3.07	0.88	14.87	4.07	14.33	1.29	47.00	23.40
64	11R221P	Pima ?	Monsanto	KERN	1.00	1.00	0.40	0.83	0.73	0.46	35.53	2.42	18.00	2.62	89.20	9.54
				TULARE	0.33	0.58	0.07	0.26	0.53	0.52	22.27	2.40	14.80	1.15	95.40	2.10
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
				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? Upla	and 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
				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? Upla	and 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
				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? Upla	and 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
				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? Upla	and 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
				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
				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 - CHE	CK 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
				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
				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

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CODEENING A.....

ENTRY # IN OUR			COMPANY	SCREENING TEST	Average acros 3 field replication				nts per replicat approximately						SURVIVAL % 7-8 WEEKS	
2012	ENTRY NAME	TYPE OF	ASSOCIATED	PLOT	WHOLE PLOT		LANT FOLIA		ROOT VASC		PLANT	ergence	# OF MAIN	STEM	PLANTING A	
TRIALS	Variety Name	COTTON	WITH CULTIVAR	LOCATION	FOLIAR RATIN		RATING		STAIN RATIN		HEIGHT (inc	hes)	NODES (co		OF INITIAL S	
					average	std dev	average	std dev	average	std dev		std dev	average	std dev		std dev
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
				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
				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
		·	•	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
				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
				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
				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
				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
				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
				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
83	12PHY-01	Pima	Phytogen	KERN	0.67	1.15	0.73	1.10	1.27	0.46	34.73	2.71	17.87	1.25	87.80	11.30
				TULARE	0.33	0.58	0.00	0.00	0.47	0.64	22.47	1.68	15.87	1.13	91.80	4.60
83	12PHY-02	Pima	Phytogen	KERN	0.67	1.15	0.13	0.52	0.73	0.59	36.20	2.01	18.00	0.93	96.07	4.00
				TULARE	0.67	0.58	0.00	0.00	0.33	0.72	21.67	3.11	14.80	1.82	90.70	1.40
84	12PHY-03	Pima	Phytogen	KERN	0.67	1.15	0.27	0.70	1.07	0.59	34.80	2.24	17.67	0.98	89.27	14.69
				TULARE	0.33	0.58	0.07	0.26	0.80	0.68	23.33	1.80	16.07	0.46	92.50	4.80

revised January 31, 2013 (rbh)

2012_Fusarium Race 4 Field Ratings

SUMMARY TABLE - means and std deviations only

All Entries in Field Screening Trials included

if questions:

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ENTDV #

contact cell: (559) 260-8957

Averages and standard deviations

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CODEENING A.....

ENTRY#					Average acros				nts per replica						SURVIVAL %	
IN OUR	ENTEN ALAME	T)/DE 0E	COMPANY	TEST	3 field replicati				approximately			ergence	# OF MAIN!	OTEM	7-8 WEEKS	
2012 TRIALS	ENTRY NAME Variety Name	TYPE OF COTTON	ASSOCIATED WITH CULTIVAR	PLOT LOCATION	WHOLE PLOT FOLIAR RATIN		LANT FOLIA RATING	K	ROOT VASC STAIN RATIN		PLANT HEIGHT (inc	shoc)	# OF MAIN : NODES (co		PLANTING A OF INITIAL S	
INIALS	variety ivaille	COTTON	WITH COLITIVAR	LOCATION	average	std dev	average	std dev		std dev		std dev		std dev		std dev
85	12PHY-04	Pima	Phytogen	KERN	0.67	1.15	0.27	0.70	1.53	0.52	34.80	2.65	16.93	0.96	95.80	4.41
	.2		. nytogon	TULARE	0.00	0.00	0.00	0.00	0.73	0.80	22.93	1.62	15.87	0.92	96.40	9.90
86	12PHY-05	Pima ?	Phytogen	KERN	0.67	1.15	0.13	0.52	1.13	0.92	35.33	2.55	17.33	1.40	95.83	1.78
				TULARE	0.33	0.58	0.00	0.00	0.67	0.72	21.60	1.88	13.93	0.96	96.00	3.90
87	12PHY-06	Pima	Phytogen	KERN	1.00	1.00	0.33	0.72	1.80	0.68	31.60	4.55	17.73	1.67	63.60	8.71
			,,	TULARE	1.33	0.58	0.13	0.52	1.47	0.83	22.40	1.60	15.93	0.70	63.70	11.00
88	12PHY-07	Pima	Phytogen	KERN	1.00	1.00	0.80	1.21	1.27	0.70	33.47	2.33	18.27	1.83	92.03	3.53
				TULARE	0.33	0.58	0.07	0.26	0.53	0.74	22.73	3.41	14.93	1.58	88.50	7.40
89	12PHY-08	Pima	Phytogen	KERN	1.33	1.15	0.67	0.98	1.07	0.46	33.67	1.68	17.47	1.06	95.33	8.08
				TULARE	0.33	0.58	0.13	0.35	1.33	0.72	22.68	1.45	14.80	1.08	96.90	5.40
90	12PHY-09	Pima	Phytogen	KERN	4.00	0.00	2.27	1.03	2.27	0.70	14.40	2.87	16.53	1.68	27.73	6.26
				TULARE	2.67	0.58	0.93	1.03	2.33	0.72	16.00	3.07	14.13	1.19	53.70	9.30
91	12PHY-10	Pima	Phytogen	KERN	1.33	1.15	0.67	0.98	1.93	0.96	32.00	2.14	17.80	1.57	78.23	16.11
				TULARE	1.00	1.00	0.20	0.56	1.13	0.92	21.80	1.93	15.87	0.74	69.00	10.10
92	12PHY-11	Pima	Phytogen	KERN	0.67	1.15	0.27	0.70	1.33	0.49	33.87	1.92	17.73	0.80	93.23	10.12
				TULARE	0.33	0.58	0.07	0.26	0.67	0.62	23.40	3.36	15.69	1.18	88.40	3.10
93	12PHY-12	Pima?	Phytogen	KERN	0.67	1.15	0.13	0.52	1.13	0.52	34.13	4.24	18.00	2.20	93.17	7.29
				TULARE	0.33	0.58	0.00	0.00	0.73	0.59	24.60	1.68	15.73	0.80	91.50	2.50
94	12PHY-13	Pima	Phytogen	KERN	0.00	0.00	0.07	0.26	1.80	0.41	28.73	8.34	18.53	1.19	91.47	13.09
				TULARE	0.33	0.58	0.13	0.35	0.87	0.83	23.13	1.55	15.27	0.88	89.10	0.40
95	12PHY-14	Pima	Phytogen	KERN	1.33	1.15	0.53	0.92	1.13	0.52	34.20	2.04	17.33	1.45	82.23	12.62
				TULARE	0.33	0.58	0.40	0.51	0.93	0.70	22.40	1.72	15.40	0.83	83.40	5.10
96	12PHY-15	Pima	Phytogen	KERN	3.00	0.00	1.33	1.11	2.73	0.70	20.93	3.51	17.20	1.21	52.73	8.34
				TULARE	1.67	1.15	0.93	1.22	2.13	0.99	17.80	4.90	15.13	1.46	55.80	19.30

revised January 31, 2013 (rbh)

PLANT

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2012_Fusarium Race 4 Field Ratings

SUMMARY TABLE - means and std deviations only

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contact cell: (559) 260-8957

Averages and standard deviations

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ENTRY # IN OUR			COMPANY	SCREENING TEST	3 field replications *all ratings shown done approximately 7 to 8 weeks after emergence 7											
2012 TRIALS	ENTRY NAME Variety Name	TYPE OF COTTON	ASSOCIATED WITH CULTIVAR	PLOT LOCATION	WHOLE PLOT FOLIAR RATIN	Р	LANT FOLIA RATING		ROOT VASCI STAIN RATIN	ULAR	PLANT HEIGHT (inc		# OF MAIN S		PLANTING A OF INITIAL S	SA%
97	12PHY-16	Pima	Phytogen	KERN TULARE	average 1.00 0.67	1.00 0.58	0.53 0.07	std dev 0.74 0.26	average 1.20 0.93	std dev 0.68 0.80	33.40 20.53	std dev 3.18 3.29	average 18.67 15.93	std dev 0.98 1.03	average 62.87 66.80	std dev 9.24 13.20
98	12PHY-17	Pima	Phytogen	KERN TULARE	1.33 0.00	1.15 0.00	0.80	1.01 0.00	0.93 0.33	0.46 0.62	34.73 24.27	2.34 1.98	17.53 14.53	1.13 1.73	93.30 91.60	1.32 4.90
99	12PHY-18	Pima	Phytogen	KERN TULARE	0.00 0.00	0.00	0.00 0.07	0.00 0.26	1.60 0.20	0.63 0.41	34.40 22.60	1.30 3.68	18.33 15.27	1.59 1.44	97.73 95.70	2.41 7.50
100	12PHY-19	Pima	Phytogen	KERN TULARE	0.33 0.33	0.58 0.58	0.07 0.07	0.26 0.26	1.67 1.07	0.62 0.80	32.93 23.20	3.00 2.08	17.80 15.27	1.08 1.10	96.93 89.70	3.79 3.70
101	12PHY-20	Pima	Phytogen	KERN TULARE	1.33 0.67	1.15 0.58	0.73 0.00	0.96 0.00	1.40 0.27	0.63 0.46	33.73 23.13	2.76 2.29	16.33 14.87	0.82 1.51	94.83 86.60	8.95 10.70
102	12PHY-21	Pima	Phytogen	KERN TULARE	0.67 0.67	1.15 0.58	0.20 0.20	0.56 0.41	1.47 0.73	0.52 0.59	30.80 21.20	2.83 1.47	17.13 15.27	1.19 0.96	95.77 93.30	0.68 8.10
103	12PHY-22	Pima	Phytogen	KERN TULARE	2.00 0.33	0.00 0.58	1.20 0.00	1.01 0.00	1.00 0.60	0.00 0.74	32.33 21.40	1.99 0.99	17.20 15.13	0.94 0.74	94.03 91.40	5.32 4.40
104	12PHY-23	Pima	Phytogen	KERN TULARE	0.67 0.33	0.58 0.58	0.00	0.00	1.13 0.80	0.74 0.77	31.47 22.33	3.62 1.35	18.60 15.60	1.35 0.83	95.00 92.80	5.28 7.90

2012_Fusarium Race 4 Field Ratings

Kern and Tulare County screening sites - 2012

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2012 TRIALS	ENTRY NAME Variety Name	TYPE OF COTTON	ASSOCIATED WITH CULTIVAR	PLOT LOCATION	WHOLE PLOT		PLANT FOLIA <u>RATING</u>	R	ROOT VASO STAIN RATIO		PLANT HEIGHT (inc	hes)	# OF MAIN S NODES (cor		PLANTING A OF INITIAL S	
					average	std dev	average	std dev	average	std dev	average	std dev	average	std dev	average	std dev
105	12PHY-24	Pima	Phytogen	KERN TULARE	0.33 1.33	0.58 1.53	0.13 0.00	0.35 0.00	1.47 1.07	0.52 0.70	30.40 22.33	2.10 1.95	16.87 16.07	1.06 1.16	94.03 92.40	0.15 1.70
106	12PHY-25	Pima	Phytogen	KERN TULARE	0.00 0.33	0.00 0.58	0.07 0.20	0.26 0.56	1.07 0.93	0.96 0.59	33.13 22.07	1.85 2.34	18.13 15.93	1.13 0.96	92.10 89.60	2.72 4.30
107	12PHY-26	Pima	Phytogen	KERN TULARE	0.00 0.00	0.00	0.00	0.00	1.07 0.47	0.70 0.64	37.40 24.73	1.96 2.55	19.27 16.73	1.79 1.16	96.43 86.60	4.41 4.50
108	PX7040-02WRF	Upland	Phytogen	KERN TULARE	2.00 2.00	0.00 0.00	1.47 1.27	0.92 0.96	2.80 2.00	0.41 1.13	28.20 21.33	4.54 4.10	17.27 14.87	1.10 1.25	92.73 74.70	4.35 9.10
109	PX7064-03WRF	Upland	Phytogen	KERN TULARE	1.33 1.33	1.15 0.58	0.93 0.20	0.96 0.56	1.73 1.67	0.70 0.72	34.60 21.27	3.25 2.66	17.53 15.27	1.25 0.88	98.20 88.50	3.12 2.30
110	PX7064-04WRF	Upland	Phytogen	KERN TULARE	2.00 1.33	0.00 1.15	0.93 0.67	1.03 0.98	2.20 1.87	0.41 0.99	31.27 22.40	4.25 3.54	17.00 15.20	1.13 1.15	94.63 84.90	2.05 4.00
111	PX7064-06WRF	Upland	Phytogen	KERN TULARE	1.67 1.67	0.58 0.58	0.53 0.67	0.74 0.72	2.53 1.53	0.52 1.06	33.87 24.33	2.95 2.89	17.33 15.20	1.05 3.00	96.37 92.90	3.70 5.80
112	PX7064-09WRF	Upland	Phytogen	KERN TULARE	1.67 1.67	0.58 0.58	0.53 0.53	0.83 0.83	2.13 1.53	0.74 1.06	33.80 23.47	2.76 2.72	17.27 15.33	0.70 1.29	93.20 85.30	2.65 1.20
113	PX7064-10WRF	Upland	Phytogen	KERN TULARE	2.00 0.67	0.00 1.15	1.00 0.13	1.00 0.52	1.73 1.67	0.59 1.23	34.13 21.60	2.13 3.50	17.33 15.27	1.45 0.80	97.13 85.80	2.55 5.90
114	PX7105-01WRF	Upland	Phytogen	KERN TULARE	2.00 1.33	0.00 1.15	1.07 0.47	1.10 0.99	3.00 1.47	0.38 0.92	26.13 23.47	2.50 2.70	16.87 15.73	1.13 1.16	92.05 90.80	4.89 8.60
115	PX7105-09WRF	Upland	Phytogen	KERN TULARE	2.33 1.33	0.58 0.58	2.27 0.27	0.88 0.70	2.40 1.20	0.63 1.26	24.87 21.93	3.68 2.22	16.73 14.87	1.10 0.99	86.40 93.10	7.04 3.00
116	PX7105-10WRF	Upland	Phytogen	KERN TULARE	2.33 1.00	0.58 1.00	1.33 0.27	1.05 0.59	2.80 1.67	0.41 0.98	28.27 20.53	3.79 3.85	17.20 15.53	0.94 1.06	92.77 78.10	3.76 17.40

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					average	std dev	average	std dev	average	std dev	average	std dev	average	std dev	average	std dev
117	PX7105-11WRF	Upland	Phytogen	KERN TULARE	2.33 1.33	0.58 1.15	2.40 0.67	0.91 1.05	2.20 1.73	0.77 1.10	26.00 22.53	3.98 4.90	17.07 15.80	1.28 1.08	84.37 84.00	7.20 12.20
118	PX7105-12WRF	Upland	Phytogen	KERN TULARE	2.33 1.33	0.53 1.15	1.07 0.13	0.96 0.52	2.60 0.93	0.63 1.22	28.60 22.80	4.45 5.03	17.47 15.00	1.36 2.14	80.97 88.60	10.83 4.70
119	PX7105-13WRF	Upland	Phytogen	KERN TULARE	2.33 2.67	0.53 0.58	1.73 1.27	1.10 1.10	2.13 2.40	0.83 0.83	25.20 21.87	2.51 3.53	17.07 15.93	1.28 1.44	85.60 74.70	8.67 4.80
120	SPR-900	Pima	Bayer	KERN TULARE	0.00 1.00	0.00 1.00	0.00 0.13	0.00 0.52	0.40 0.33	0.74 0.49	31.67 22.20	3.27 2.43	16.27 15.53	2.02 1.46	91.90 89.00	7.09 4.40
121	SPR-1000	Pima	Bayer	KERN TULARE	0.67 2.33	1.15 0.58	0.27 0.67	0.59 0.82	1.27 1.60	0.59 0.63	32.13 18.73	3.04 2.58	18.47 15.00	1.60 1.51	73.13 73.00	5.28 7.80
122	PHY-800	Pima - CHECH	K Phytogen	KERN TULARE	1.33 1.33	1.15 0.58	0.60 0.20	0.74 0.56	1.33 1.00	0.49 0.85	34.80 23.07	2.48 3.03	17.13 15.73	1.06 1.16	91.37 91.60	7.49 7.40
123	AU91215	Upland	Regional Breeder CottonInc-RBTN	KERN TULARE	2.00 1.67	0.00 0.58	0.80 0.40	0.86 0.74	1.93 1.40	0.70 0.99	32.53 24.07	5.60 4.73	17.93 15.47	1.53 1.46	90.70 83.90	10.84 12.80
124	AU90915	Upland	Regional Breeder CottonInc-RBTN	KERN TULARE	1.67 1.33	0.58 0.58	1.20 0.27	0.94 0.59	2.53 1.53	0.52 1.06	30.13 24.33	4.90 2.77	17.07 15.73	1.44 1.58	92.13 84.50	10.07 11.80
125	AU91411	Upland	Regional Breeder CottonInc-RBTN	KERN TULARE	2.00 1.67	0.00 0.58	1.60 1.07	1.06 1.10	2.40 1.27	0.51 1.22	34.27 21.67	3.20 4.13	17.67 15.27	1.63 1.58	98.40 87.00	2.77 11.80
126	AU91111	Upland	Regional Breeder CottonInc-RBTN	KERN TULARE	2.00 2.00	0.00 1.00	0.60 0.40	0.91 0.74	1.53 1.73	0.64 1.10	32.07 23.40	6.71 3.60	18.07 15.13	1.49 1.13	77.13 79.60	8.66 13.60

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ENTDV #

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Kern and Tulare County screening sites - 2012

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

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CODEENING A.....

ENTRY #					Average acros				nts per replica						SURVIVAL %	
IN OUR	2012 ENTRY NAME TYPE OF ASSOCIATION			TEST	3 field replicati				approximatel			ergence			_7-8 WEEKS	
2012 TRIALS	ENTRY NAME Variety Name	TYPE OF COTTON	ASSOCIATED WITH CULTIVAR	PLOT LOCATION	WHOLE PLOT		LANT FOLIA RATING	R	ROOT VASC STAIN RATIN		PLANT HEIGHT (inc	shoc)	# OF MAIN NODES (co		PLANTING A OF INITIAL S	
INIALS	variety (varie	COTTON	WIIITCOLITVAR	LOCATION	average	std dev	average	std dev		std dev		std dev		std dev		std dev
127	AU90810	Upland	Regional Breeder	KERN	1.67	0.58	0.80	1.01	2.20	0.56	33.33	4.43	18.40	1.55	97.67	2.40
	7.0000.0	Opiana	CottonInc-RBTN	TULARE	1.33	0.58	0.40	0.74	1.60	1.12	23.20	4.13	16.13	1.30	94.90	2.50
128	Ark 0409-17	Upland	Regional Breeder	KERN	2.67	0.58	1.67	1.05	2.87	0.35	26.80	5.41	16.93	1.53	80.33	6.01
			CottonInc-RBTN	TULARE	2.33	1.15	1.07	1.10	2.20	0.77	22.47	4.90	15.33	0.72	78.30	7.40
129	Ark 0409-16	Upland	Regional Breeder	KERN	2.33	0.58	0.93	1.03	2.33	0.90	30.53	2.75	18.20	0.94	91.13	5.06
			CottonInc-RBTN	TULARE	2.33	0.58	1.07	1.22	1.80	1.32	20.67	4.51	15.27	1.58	66.40	15.80
130	Ark 0403-3	Upland	Regional Breeder	KERN	2.00	0.00	1.40	1.12	1.80	0.56	34.53	4.34	19.13	1.36	89.20	7.83
			CottonInc-RBTN	TULARE	1.67	0.58	0.67	1.05	1.93	0.96	24.87	3.46	16.93	1.16	74.20	8.60
131	Arkot 0410-32	Upland	Regional Breeder	KERN	2.33	0.53	1.33	1.23	2.47	0.64	27.47	3.74	17.13	1.51	86.07	4.25
			CottonInc-RBTN	TULARE	1.67	0.58	0.87	1.19	1.73	1.03	23.87	4.34	17.00	1.25	92.80	2.60
132	Arkot 0407-4	Upland	Regional Breeder	KERN TULARE	1.67	0.58	0.47	0.83 0.41	1.93	0.46	33.87	3.72	18.13	1.77	93.03	7.05
			CottonInc-RBTN	TULARE	1.00	0.00	0.20	0.41	1.00	0.93	24.80	3.41	15.93	1.22	86.30	3.90
133	GA 2004143	Upland	Regional Breeder CottonInc-RBTN	KERN TULARE	2.00 2.33	0.00 0.58	1.53 0.60	0.83 0.91	1.60 1.73	0.74 0.88	30.60 21.47	3.89 2.56	18.00 15.40	1.65 1.18	89.63 74.70	10.02 9.60
			Cottonine-RBTN				0.60	0.91			21.47				74.70	9.60
134	GA 2008083	Upland	Regional Breeder CottonInc-RBTN	KERN TULARE	2.00 1.67	0.00 1.15	1.33 0.93	0.98 1.16	2.13 2.53	0.64 0.74	27.87 22.93	3.89 3.61	17.20 16.00	1.26 1.41	95.57 73.30	7.68 12.00
135	GA 2008057	Upland	Regional Breeder CottonInc-RBTN	KERN TULARE	2.33 2.00	0.58 0.00	1.00 0.60	1.00 0.99	2.40 1.80	0.63 1.01	31.40 23.53	2.87 3.36	17.47 15.87	1.30 0.99	91.47 78.30	8.98 1.10
136	GA 2009100	Upland	Regional Breeder CottonInc-RBTN	KERN TULARE	1.33 2.33	1.15 1.15	0.67 0.80	0.98 1.08	2.00 2.20	0.65 0.68	32.00 22.60	5.76 4.73	18.13 15.87	1.81 1.19	90.70 72.00	5.38 12.90
137	LA08310066	Upland	Regional Breeder CottonInc-RBTN	KERN TULARE	2.67 2.00	0.53 0.00	1.27 0.87	1.03 0.92	2.33 2.40	0.72 0.74	30.80 20.47	3.03 4.84	17.07 15.53	0.96 1.13	97.13 78.70	1.25 5.80
138	MD 26ne	Upland	Regional Breeder CottonInc-RBTN	KERN TULARE	1.33 0.33	1.15 0.58	0.67 0.33	0.98	1.27 1.47	0.46 0.92	38.47 25.67	3.07 2.69	17.87 15.07	1.13 1.39	92.10 90.50	7.09 7.10
			Oottomio-RDTN	TODIKE	0.00	0.00	0.00	0.40	1.47	0.02	20.01	2.03	13.07	1.00	55.50	7.10

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2012_Fusarium Race 4 Field Ratings

Kern and Tulare County screening sites - 2012

SUMMARY TABLE - means and std deviations only

Averages and standard deviations

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Hutmacher, Wright and Ulloa Univ. CA and USDA-ARS

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ENTRY#		SCREENING	SCREENING Average across across 15 plants (5 plants per replication, 3 field replications)													
IN OUR			COMPANY	TEST		3 field replications *all ratings shown done approximately 7 to 8 weeks after emergence										
2012	ENTRY NAME	TYPE OF	ASSOCIATED	PLOT	WHOLE PLOT		LANT FOLIA		ROOT VASCULAR		PLANT		# OF MAIN STEM		PLANTING A	
TRIALS	Variety Name	COTTON	WITH CULTIVAR	LOCATION	FOLIAR RATIN		RATING		STAIN RATING		HEIGHT (inc		NODES (cou		OF INITIAL S	
					average	std dev	average	std dev	average	std dev	average	std dev	average	std dev	average	std dev
139	MD 10-5	Upland	Regional Breeder	KERN	2.00	0.00	0.93	0.93	2.40	0.51	34.40	3.14	17.13	0.99	98.00	1.91
			CottonInc-RBTN	TULARE	2.00	0.00	0.67	0.82	1.20	0.68	22.40	4.03	15.20	1.86	80.70	12.20
140	MD 87	Upland	Regional Breeder	KERN	2.00	0.00	1.67	1.11	2.27	0.59	35.80	2.96	17.53	1.19	93.87	2.78
140	WID 07	Opiana	CottonInc-RBTN	TULARE	2.67	0.58	0.87	1.06	1.93	1.03	21.27	4.48	15.13	0.92	61.00	11.90
141	NC11AZ01	Upland	Regional Breeder	KERN	2.00	0.00	0.87	0.99	1.93	0.59	36.13	2.90	17.80	0.86	88.60	10.89
141	NCTIAZUT	Opiano	CottonInc-RBTN	TULARE	1.00	1.00	0.20	0.56	1.80	0.86	23.33	5.92	15.47	1.77	80.90	11.50
			Collonnio (1211)	.02			0.20	0.00	1.00	0.00	20.00	0.02			00.00	
142	NM11Q1157	Upland	Regional Breeder	KERN	2.00	0.00	0.87	0.99	1.87	0.74	32.47	4.58	17.93	0.80	93.80	7.69
			CottonInc-RBTN	TULARE	2.00	1.00	1.07	1.33	2.13	1.13	23.33	7.07	15.20	2.54	65.50	15.40
143	NM11Q1008	Upland	Regional Breeder	KERN	1.67	0.58	0.60	0.91	1.93	0.80	37.27	4.73	18.27	0.70	96.43	3.11
			CottonInc-RBTN	TULARE	1.00	1.00	0.13	0.52	1.07	1.03	26.40	4.32	15.53	1.30	92.90	1.70
144	Acala 1517-08	Upland	Regional Breeder	KERN	2.00	0.00	1.27	0.96	2.47	0.52	30.87	5.29	18.20	1.37	96.80	3.60
	7.00.0 7077 00	Opiana	CottonInc-RBTN	TULARE	1.67	0.58	0.80	0.94	2.53	0.64	22.13	5.08	14.73	1.10	64.90	10.60
145	PD05064	Upland	Regional Breeder	KERN	2.00	0.00	1.20	1.01	2.67	0.49	31.00	3.59	17.80	1.26	83.70	11.36
145	FD03004	Opianu	CottonInc-RBTN	TULARE	2.33	1.15	0.93	0.88	2.40	0.49	20.53	4.21	15.67	1.29	78.80	3.90
			Collonnio (1211)	.02	2.00	0	0.00	0.00	2.10	0.01	20.00		10.01	1.20	7 0.00	0.00
146	PD05074	Upland	Regional Breeder	KERN	2.67	0.58	1.27	1.03	2.27	0.70	33.00	4.57	18.80	1.26	95.07	4.72
			CottonInc-RBTN	TULARE	2.33	0.58	1.40	1.12	2.40	1.12	20.20	4.87	15.27	1.62	81.60	3.70
147	PD05071	Upland	Regional Breeder	KERN	2.67	0.58	0.87	1.13	1.87	0.83	32.80	5.09	17.60	1.06	97.70	2.01
		·	CottonInc-RBTN	TULARE	2.33	1.15	1.20	1.08	2.40	0.83	21.07	3.13	14.73	1.10	70.90	10.20
148	PD06078	Upland	Regional Breeder	KERN	2.00	0.00	0.80	1.01	2.27	0.59	29.07	2.69	17.73	1.49	96.67	5.77
140	1 2000/0	υριατία	CottonInc-RBTN	TULARE	2.00	0.00	0.80	0.92	1.67	1.11	21.33	4.64	14.73	3.81	82.50	4.40

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CODEENING A.....

ENTRY#			Average acros		across 15 pla		SURVIVAL % AT												
IN OUR	===		COMPANY	TEST	3 field replicat		*all ratings shown done approximately 7 to 8 weeks after emergence												
2012 ENTRY NAME TYPE OF TRIALS Variety Name COTTON		TYPE OF COTTON	ASSOCIATED WITH CULTIVAR	PLOT LOCATION	WHOLE PLOT FOLIAR RATING		PLANT FOLIAR RATING		ROOT VASCULAR STAIN RATING		PLANT HEIGHT (inches)		# OF MAIN STEM NODES (count)		PLANTING AS A % OF INITIAL STAND				
IRIALS	variety Name	COTTON	WITH COLTIVAR	LOCATION	average	std dev	average	std dev		std dev		std dev		std dev		std dev			
149	PD06001	Upland	Regional Breeder	KERN	2.33	0.58	1.53	0.99	2.73	0.46	28.40	5.00	17.00	1.25	92.43	6.75			
149	PD06001	Opiano	CottonInc-RBTN	TULARE	2.33	1.00	0.40	0.83	1.40	1.12	24.00	4.33	15.33	1.59	92.43 84.10	10.70			
			Collonnio N.S.III	.02	2.00		0.10	0.00			200		.0.00		00				
150	Tamcot 73	Upland	Regional Breeder	KERN	2.67	0.58	1.80	1.15	2.20	0.77	26.93	5.78	17.40	1.45	90.47	7.97			
			CottonInc-RBTN	TULARE	2.00	1.00	1.07	0.96	1.93	0.70	16.67	5.95	15.93	1.83	63.90	6.70			
151	TAM 06WE-62-1	Upland	Regional Breeder	KERN	1.33	1.15	0.80	1.08	1.67	0.62	33.20	3.38	17.07	0.96	96.23	3.85			
			CottonInc-RBTN	TULARE	0.67	0.58	0.20	0.56	1.93	0.88	22.20	4.55	14.73	0.80	83.00	10.60			
152	DP 393	Upland	Regional Breeder	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			
.02	2. 000	opiana	CottonInc-RBTN	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			
450	EM 050	Untrad	Danianal Bassalan	KERN	0.00	0.00	4.00	0.04	0.00	0.70	26.00	0.70	40.07	0.70	00.40	44.00			
153	FM 958	Upland	Regional Breeder CottonInc-RBTN	TULARE	2.00 1.33	0.00 0.58	1.60 0.47	0.91 0.74	2.00 1.80	0.76 0.77	26.00 18.47	3.78 4.03	18.07 16.73	1.62	89.43 74.90	11.03 15.80			
			Cottonino RETIV	TODAKE	1.00	0.00	0.47	0.74	1.00	0.77	10.41	4.00	10.70	1.02	14.00	10.00			
154	SG 105	Upland	Regional Breeder	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			
			CottonInc-RBTN	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			
155	Barbren 713	Upland	Regional Breeder	KERN	2.33	0.58	1.07	1.03	2.40	0.63	29.93	4.13	19.13	1.25	86.17	3.82			
			CottonInc-RBTN	TULARE	2.33	0.58	1.53	0.99	2.00	0.65	17.80	5.72	15.20	1.66	68.80	16.90			
156	12FR4-1	Upland	AMERICOT	KERN only	1.33	0.58	0.27	0.59	1.93	0.26	33.87	3.00	17.53	1.55	90.37	5.27			
130	121 1(4-1	Opiana	AMERIOOT	IXEIXIV OIIIy	1.55	0.50	0.21	0.55	1.55	0.20	33.07	3.00	17.55	1.00	30.37	5.21			
157	12FR4-2	Upland	AMERICOT	KERN only	1.67	0.53	0.80	1.01	1.87	0.64	35.00	2.93	17.47	0.99	92.73	5.89			
158	12FR4-3	Upland	AMERICOT	KERN only	2.00	0.00	0.40	0.83	1.93	0.70	32.80	3.38	17.13	0.99	97.70	3.98			
100	121114-0	Opiana	TIMETRICOT	TALITATE OTTING	2.00	0.00	0.40	0.00	1.00	0.70	02.00	0.00	17.10	0.00	07.70	0.00			
159	12FR4-4	Upland	AMERICOT	KERN only	1.67	0.58	1.00	1.13	1.60	0.83	37.27	5.43	19.80	1.52	90.43	5.20			
160	12FR4-5	Upland	AMERICOT	KERN only	1.33	0.58	0.27	0.70	2.47	0.52	36.80	2.60	17.87	0.99	98.00	3.46			
		·		,															
161	AFIS A 107	Upland	Auld-Texas Tech	KERN only	2.33	0.58	1.40	1.18	2.53	0.83	23.67	5.58	16.33	1.84	87.17	9.47			
162	AFIS A 110	Upland	Auld-Texas Tech	KERN only	2.33	0.58	1.53	0.99	2.40	0.83	24.87	3.07	17.13	0.99	92.00	4.36			

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2012	ENTRY NAME	ME TYPE OF ASSOCIATED		PLOT	WHOLE PLOT		PLANT FOLIAR		ROOT VASCULAR		PLANT		# OF MAIN STEM		PLANTING AS A %		
TRIALS	Variety Name	COTTON	WITH CULTIVAR	LOCATION	FOLIAR RATING average std de		RATING ev average std dev		STAIN RATING v average std dev		HEIGHT (inches) v average std de		NODES (count) v average std de		OF INITIAL STAND v average std dev		
163	AFIS A 111	Upland	Auld-Texas Tech	KERN only	1.67	0.53	1.27	1.03	2.13	0.64	29.07	2.28	16.93	0.96	84.80	9.99	
164	AFIS A 116	Upland	Auld-Texas Tech	KERN only	2.00	0.00	1.40	1.30	2.27	0.70	22.80	5.29	16.40	1.55	83.43	7.32	
165	AFIS A 121	Upland	Auld-Texas Tech	KERN only	2.33	0.58	1.87	0.64	1.93	0.80	23.80	4.66	16.87	1.64	85.20	8.31	
166	AFIS A 122	Upland	Auld-Texas Tech	KERN only	2.00	0.00	0.87	0.99	1.60	0.51	29.53	2.77	17.13	1.36	86.47	8.50	
167	AFIS A 128	Upland	Auld-Texas Tech	KERN only	2.33	0.58	1.33	0.90	2.20	0.56	29.60	2.64	17.67	1.11	76.47	11.54	
168	AFIS A 131	Upland	Auld-Texas Tech	KERN only	2.33	0.58	1.67	1.29	2.27	0.88	24.13	5.93	16.13	1.25	81.50	14.49	
169	AFIS A 136	Upland	Auld-Texas Tech	KERN only	2.33	0.58	1.53	1.25	2.53	0.99	23.47	4.91	15.93	1.03	86.37	10.81	
170	AFIS A 140	Upland	Auld-Texas Tech	KERN only	1.67	0.53	0.80	0.96	2.40	0.63	24.33	3.35	16.60	1.24	79.30	13.35	
171	AFIS A 141	Upland	Auld-Texas Tech	KERN only	2.33	0.58	1.87	1.25	2.27	0.70	23.40	3.62	15.93	1.10	89.87	5.28	
172	AFIS A 142	Upland	Auld-Texas Tech	KERN only	2.00	0.00	0.60	0.97	2.50	0.71	26.40	2.80	17.20	0.79	84.40	0.99	
173	AFIS A 215	Upland	Auld-Texas Tech	KERN only	2.00	0.00	1.60	0.84	1.80	0.79	24.40	5.10	16.60	1.58	93.40	1.27	
174	AFIS B 107	Upland	Auld-Texas Tech	KERN only	2.00	0.00	0.80	1.03	2.60	0.97	31.40	4.22	17.70	2.06	84.60	9.05	
175	AFIS B 109	Upland	Auld-Texas Tech	KERN only	2.50	0.71	1.90	1.37	2.10	0.88	24.90	6.87	17.10	3.35	64.25	13.93	
176	AFIS B 110	Upland	Auld-Texas Tech	KERN only	2.00	0.00	1.00	1.05	2.20	0.79	30.90	4.82	17.70	1.49	87.90	11.17	
177	AFIS B 119	Upland	Auld-Texas Tech	KERN only	2.50	0.71	1.30	1.16	2.20	0.92	30.20	8.27	18.00	1.94	75.80	13.72	
178	AFIS B 121	Upland	Auld-Texas Tech	KERN only	2.00	0.00	0.40	0.84	1.80	0.79	32.60	4.06	17.80	1.32	95.45	3.61	
179	AFIS B 124	Upland	Auld-Texas Tech	KERN only	2.00	0.00	0.80	1.03	1.80	0.79	33.60	5.34	18.50	1.58	84.75	8.70	
180	AFIS B 127	Upland	Auld-Texas Tech	KERN only	2.00	0.00	1.40	1.07	2.80	0.63	31.70	4.11	17.60	0.84	86.10	11.17	

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2012_Fusarium Race 4 Field Ratings

SUMMARY TABLE - means and std deviations only

All Entries in Field Screening Trials included

if questions:

Hutmacher, Wright and Ulloa contact cell: (559) 260-8957

contact e-mail: rbhutmacher@ucdavis.edu this table includes:

Kern and Tulare County screening sites - 2012

Univ. CA and USDA-ARS

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

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

Suggestions in interpreting this data summary:

- 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)
- 2) individual plot sizes were single row by about 15 to 18 feet in length (depending on site), with about 65-70 seed planted per plot row
- 3) the most useful ratings to first focus on in this summary are: (a) ROOT VASCULAR STAIN RATING; and (b) PLANT SURVIVAL % AT 7-8 WEEKS (vascular stain is correlated with severity of infection, survival % related to yield loss impacts)
- 4) the rating "WHOLE PLOT FOLIAR RATINGS" tend to be highly variable and affected by overall plant stunting, survival % a low WHOLE PLOT 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):

rating = 0 means no visible symptoms (no foliar damage, no root staining) are evident

rating = 5 means visible symptoms are very severe (severe foliar damage, stunting, plants nearly dead)

intermediate rating #'s = relative indicators of severity of foliar or vascular staining (higher numbers indicate worse disease injury)

					Averages and standard deviations											PLANT			
ENTRY#				SCREENING	IG Average across across 15 plants (5 plants per replication, 3 field replications)									SURVIVAL % AT					
IN OUR			COMPANY	TEST	3 field replicat	ions '	*all ratings shown done approximately 7 to 8 weeks after emergence								7-8 WEEKS AFTER				
2012	ENTRY NAME	TYPE OF	ASSOCIATED	PLOT	WHOLE PLOT		PLANT FOLIAR		ROOT VASCULAR		PLANT		# OF MAIN STEM		PLANTING AS A %				
TRIALS	Variety Name	COTTON	WITH CULTIVAR	LOCATION	FOLIAR RATING		RATING		STAIN RATING		HEIGHT (inches)		NODES (count)		OF INITIAL STAND				
					average	std dev	average	std dev	average	std dev	average	std dev	average	std dev	average	std dev			
181	AFIS B 128	Upland	Auld-Texas Tech	KERN only	2.00	0.00	1.10	0.99	2.60	0.52	32.70	4.50	16.90	1.79	81.25	2.90			
182	AFIS B 139	Upland	Auld-Texas Tech	KERN only	2.00	0.00	1.50	1.08	2.20	0.63	29.00	3.68	17.30	2.00	80.60	0.28			
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183	AFIS B 1145	Upland	Auld-Texas Tech	KERN only	2.00	0.00	0.90	0.99	2.00	0.82	31.20	2.62	18.20	1.23	92.05	3.32			
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