

SUMMARY OF SCREENING TRIAL RESULTS - Hutmacher, Wright (Univ. CA), Ulloa (USDA-ARS)										DATA SETS AND SUPPORT PROVIDED BY:			page 6	
Kern County field screening trial - Fusarium race 4 moderate to severe infestation field										University of California Cooperative Extension; USDA-ARS Shafter;			1/30/2012	
2011 field screening trial for Fusarium Race-4 Susceptibility										University of CA Davis Plant Sciences Dept. and Plant Pathology Dept.			for more information contact:	
Test Site Used: sandy loam soil- confirmed Fusarium race 4 infested site										Partial List of Personnel Involved:			Bob Hutmacher - University of CA	
*evaluations typically done about 8+ weeks after planting										B. Hutmacher, M. Ulloa, S.D. Wright, M. Keeley, G. Banuelos, R. Delgado			cell: (559) 260-8957	
										M. Biggs, K. Wilson, S. Rios, K. Hutmacher, K. Hernandez, T. Avila,				
										W. Flores, R. Flores				
										Funding Provided in part by: Cotton Inc. State Support,				
										CA Cotton Alliance, Seed Companies, Univ. of CA, USDA-ARS				
										(0=no symptoms,				
										5=dead, intermediate #'s are				
										relative indicator of severity of				
										damage (both foliar & vascular)				
Entry #	Variety	Type of	whole plot foliar	average	average	# main stem								
	Name	Cotton	<i>fusarium damage</i>	<i>fusarium foliar</i>	root	nodes on	plant	% plant survival			5=dead, intermediate #'s are			
			rating (0=no visible	symptoms	vascular	plant (lower #	height	under disease			relative indicator of severity of			
			damage, 5= dead,	on plants	stain rating	may indicate	(cm measured	pressure at site			damage (both foliar & vascular)			
			intermediate #'s	also rated for	<i>Fusarium</i>	more stunting	on final	(calc as % of emergence			Verticillium Ratings			
			relative indicator)	vascular symptoms		assoc with disease)	evaluation date)	10-12 days after planting)			Foliar	Vascular		
225	Exp. A234	Olvey	Pima experimental	3.67	1.87	2.53	13.60	38.80			32.84	0.76	1.12	
226	Exp. M10	Olvey	Pima experimental	4.67	2.20	3.13	13.29	31.43			10.12	1.67	2.17	
227	Exp. 28C	Olvey	Pima experimental	0.00	0.00	0.87	15.20	70.40			89.85	0.43	0.24	
228	Exp. 31-19-3	Olvey	Pima experimental	0.00	0.00	1.00	14.73	65.47			86.94	0.67	0.24	
229	DP-360	Monsanto	Pima	0.33	0.07	1.20	14.93	64.87			96.13	0.62	0.29	
230	DP-340	Monsanto	Pima	3.33	1.47	2.47	13.80	41.40			33.71	0.79	0.74	
231	DP-357	Monsanto	Pima	3.00	0.87	2.67	14.80	50.27			23.91	0.86	1.00	
232	10R013B2R2	Monsanto	Upland experimental	1.00	0.47	1.93	16.07	71.13			86.02	0.67	1.38	
233	10R052B2R2	Monsanto	Upland experimental	2.00	1.07	2.00	14.20	69.87			86.40	0.67	1.00	
234	11R159B2R2	Monsanto	Upland experimental	1.33	1.27	2.13	15.13	66.47			79.79	0.71	1.67	
235	11R136B2R2	Monsanto	Upland experimental	2.00	1.00	2.00	16.33	64.00			74.11	1.05	1.29	
236	10R051B2R2	Monsanto	Upland experimental	2.33	1.13	1.80	13.53	61.53			82.84	0.86	1.14	
237	10R020B2R2	Monsanto	Upland experimental	1.67	0.80	1.87	16.13	66.07			87.62	0.38	1.29	
238	11R112B2R2	Monsanto	Upland experimental	1.67	0.87	2.13	15.73	69.20			73.05	0.67	1.00	
239	11R124B2R2	Monsanto	Upland experimental	0.33	0.27	1.27	15.53	71.60			90.16	0.24	0.29	
240	11R140B2R2	Monsanto	Upland experimental	1.67	0.60	2.00	15.00	65.67			91.52	0.29	1.38	
241	11R142B2R2	Monsanto	Upland experimental	2.00	0.73	1.67	15.80	67.47			65.73	0.57	0.81	
242	PHY-805RF	Phytogen	Pima	1.33	0.80	1.73	14.93	58.80			40.02	0.57	0.67	
243	PHY11.FOV01	Phytogen	Pima experimental	0.00	0.20	1.07	16.00	67.87			91.49	0.14	0.10	
244	PHY11.FOV02	Phytogen	Pima experimental	3.67	1.53	2.40	14.93	50.47			32.19	0.90	0.86	
245	PHY11.FOV03	Phytogen	Pima experimental	0.33	0.00	1.27	13.87	69.33			83.82	0.71	0.19	
246	PHY11.FOV04	Phytogen	Pima experimental	0.33	0.07	1.07	14.87	66.93			90.92	0.48	0.43	
247	PHY11.FOV05	Phytogen	Pima experimental	1.00	0.13	1.13	15.33	67.27			59.94	0.24	0.10	
248	PHY11.FOV06	Phytogen	Pima experimental	0.33	0.13	0.87	16.47	69.40			90.22	0.24	0.14	

* note that readings in these 2 columns relate to verticillium in these same plots where fusarium was evaluated

5=dead, intermediate #'s are relative indicator of severity of damage (both foliar & vascular)

Verticillium Ratings
Foliar Vascular

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							(0=no symptoms, 5=dead, intermediate #'s are relative indicator of severity of damage (both foliar & vascular))			* note that readings in these 2 columns relate to verticillium in these same plots where fusarium was evaluated	
Entry #	Variety Name	Type of Cotton	whole plot foliar fusarium damage rating (0=no visible damage, 5= dead, intermediate #'s relative indicator)	average fusarium foliar symptoms on plants also rated for vascular symptoms	average root vascular staining Fusarium	# main stem nodes on plant (lower # may indicate more stunting assoc with disease)	plant height (cm measured on final evaluation date)	% plant survival under disease pressure at site (calc as % of emergence 10-12 days after planting)	Foliar	Vascular	
249	PHY11.FOV07	Phytogen	Pima experimental	0.33	0.07	0.87	14.67	64.20	88.22	0.29	0.19
250	PHY11.FOV08	Phytogen	Pima experimental	0.33	0.20	1.07	14.40	64.67	87.65	0.33	0.24
251	PHY11.FOV09	Phytogen	Pima experimental	0.33	0.07	1.27	15.13	71.53	87.08	0.19	0.24
252	PHY11.FOV10	Phytogen	Pima experimental	0.33	0.13	1.13	14.73	67.73	96.00	0.19	0.10
253	PHY11.FOV11	Phytogen	Pima experimental	0.00	0.00	1.07	14.47	65.67	86.18	0.43	0.24
254	PHY11.FOV12	Phytogen	Pima experimental	1.00	0.13	1.40	14.13	51.20	60.80	0.38	0.14
255	PHY11.FOV13	Phytogen	Pima experimental	0.00	0.00	1.20	14.73	62.67	92.11	0.29	0.14
256	PHY11.FOV14	Phytogen	Pima experimental	0.00	0.00	1.00	15.47	68.60	93.53	0.14	0.10
257	PHY11.FOV15	Phytogen	Pima experimental	0.33	0.20	1.20	15.73	66.73	87.21	0.52	0.10
258	PHY11.FOV16	Phytogen	Pima experimental	0.00	0.00	1.20	15.60	70.07	91.72	0.52	0.00
259	PHY11.FOV17	Phytogen	Pima experimental	0.67	0.13	0.87	14.87	67.27	95.75	0.30	0.35
260	PHY11.FOV18	Phytogen	Pima experimental	0.00	0.13	1.13	15.33	67.87	90.91	0.33	0.29
261	PHY11.FOV19	Phytogen	Pima experimental	0.67	0.00	1.07	14.87	60.20	84.40	0.48	0.00
262	HA-195	Hazera	hybrid	0.67	0.33	1.67	16.07	86.00	66.07	0.14	0.43
263	HA-222	Hazera	hybrid	1.00	0.53	1.73	14.73	74.40	87.86	0.38	0.62
264	HA-211	Hazera	hybrid	1.00	0.13	1.87	16.73	73.67	89.84	0.19	0.43
265	HA-955	Hazera	hybrid	0.33	0.20	1.67	15.80	83.07	75.21	0.19	0.67
266	HA-1344	Hazera	hybrid	1.00	0.27	2.07	16.53	81.07	88.12	0.29	0.62
267	HA-1432	Hazera	hybrid	0.00	0.07	1.73	16.33	84.33	92.50	0.14	0.33
268	HA-1639	Hazera	hybrid	0.33	0.20	1.07	16.20	80.00	75.36	0.10	0.10
269	YD-690	Hazera	hybrid	1.00	0.13	1.40	16.13	78.07	75.87	0.05	0.43
270	P06X8188	Phytogen	Pima	2.00	0.73	1.73	15.33	56.53	48.51	0.52	0.14
271	PO7X8227	Phytogen	Pima	3.00	0.93	2.47	14.40	45.00	45.72	0.90	0.81