2017 University of California PIMA COTTON VARIETY TRIALS

January 25, 2018 update

Seed cotton yields, mini-gin calculated lint percent and gin turnout, calculated lint yield averages

Questions?

contact: Bob Hutmacher (Univ. CA)

Cell: (559) 260-8957

email: rbhutmacher@ucdavis.edu

Cooperative Project by:

University of CA Coop. Extension (UC-ANR) / Univ. CA Davis Plant Sci Dept. / Univ. CA West Side REC

Funding by: CA Cotton Growers&Ginners Assoc., CA Cotton Alliance, UC-ANR/UCCE, UC Davis Plant Sci. Dept.

Cooperators: multiple growers, Steve Wright, Dan Munk, Brian Marsh, Bill Weir, Mark Keeley, Raul Delgado, TariLee Frigulti, SJV Quality Cotton Growers Assoc.-Shafter, Univ CA Cooperative Extension Tulare, Kings, Fresno, Kern, Merced Counties

Field 12

Location: West Side Research and Extension Center (Fresno County)

Row spacing = 40 inches

VARIETY	SEED COMPANY	SEED COTTON (lbs/acre)	MINI-GIN LINT PERCENT (%)	MINI-GIN GIN TURNOUT (%)	LINT YIELD* *(calculated as seed cotton yield times Mini-Gin Turnout)	LINT YIELD (as % of Phy-841 RF yield)	SEEDCOTTON YIELD (as % of Phy-841 RF yield)
DP 348 RF	DPL / Monsanto	4328	41.2	40.0	1734	99	101
DP 358 RF	DPL / Monsanto	4204	40.3	39.8	1674	95	98
MON 16R 330 R2P	Monsanto	4546	40.9	40.1	1824	104	106
MON 16R 341 R2P	Monsanto	4406	41.4	40.6	1788	102	103
OA EXP 16-48	Monsanto / Olvey & Assoc.	4401	41.0	40.1	1766	101	103
PHY 841 RF	Phytogen	4285	41.8	41.0	1757	100	100
PHY 881 RF	Phytogen	4456	41.5	40.7	1814	103	104
PHY 888 RF	Phytogen	4330	40.1	40.2	1741	99	101
HA 1432	Hazera	5147	38.6	38.1	1961	112	120
HA 690	Hazera	4386	38.5	37.9	1659	94	102
PHY 805 RF	Phytogen	3955	42.1	40.8	1612	92	92
PHY 802 RF	Phytogen	3746	40.7	39.9	1495	85	87
MEAN		4349	40.7	39.9	1735		
[a] LSD 0.05		438	0.7	0.8	172		
[a] LSD 0.10							
[b] %CV		7.0	1.3	1.4	6.9		
[c] P		0.000	0.000	0.000	0.001		

*** NOTE: LINT YIELD VALUES** shown were calculated using a mini-gin. This simple ginning method differs from UCCE methods in prior years (mini-gin does not have commercial gin style cleaners. Corrections were calculated for moisture loss/gain between field harvest weight timing and ginning timing, and basic gin loss estimates are typically lower with use of mini-gin. All samples were handled in an identical manner in terms of mini-gin operations, so gin turnout and lint percent numbers represent relative variety differences.

[a] LSD = least significant difference at 5% level (differences in mean values shown that differ by more than LSD value shown are significantly different)

[b] C.V. = coefficient of variation across replications

[c] P = probability (if value shown is 0.05 or less, there is greater than a 95% probability of significant differences between mean values shown)

2016 University of California PIMA COTTON VARIETY TRIALS

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Dec. 21, 2016 update

MINI-GIN versus SHAFTER RESEARCH GIN COMPARISON from prior years

for information purposes - comparison, since 2017 trial data all based on mini-gin processing

from prior years (2015-2016 as shown, not 2017)

Questions?	Cooperative Project by:
contact: Bob Hutmacher (Univ. CA)	University of CA Coop. Extension (UC-ANR) / Univ. CA Davis Plant Sci Dept. / Univ. CA West Side REC
Cell: (559) 260-8957	**Funding by**: CA Cotton Growers&Ginners Assoc., CA Cotton Alliance, UC-ANR/UCCE, UC Davis Plant Sci. Dept.
email: rbhutmacher@ucdavis.edu	**Cooperators:** multiple growers, Steve Wright, Dan Munk, Brian Marsh, Bill Weir, Mark Keeley, Raul Delgado, TariLee Frigulti, SJV Quality Cotton Growers Assoc.-Shafter, Univ CA Cooperative Extension Tulare, Kings, Fresno, Kern, Merced Counties

Location: Los Banos area (Merced County)

HARVEST DATE: 10/12

VARIETY	SEED COMPANY	SEED COTTON (lbs/acre)	2016 MINI-GIN LINT PERCENT (%)	2016 MINI-GIN GIN TURNOUT (%)	for comparison: GIN TURNOUTS PERCENT from **2015** COTTON TRIALS ***(**2015 analyses done using Shafter Research Gin)*** Corcoran	Los Banos	Riverdale	Shafter
PHY 805RF	Phytogen	3329	43.8	42.6	34.1	32.1	34.5	33.2
PX 8188RF	Phytogen	4238	43.8	42.7	34.9	33	35.6	33.7
PHY 841RF	Phytogen	4231	44.1	42.7	34.4	33.6	35.2	34
PHY 881RF	Phytogen	4242	44.2	42.8				
DP 348RF	Monsanto / Delta Pine	4022	43.4	42.4	33.3	32.5	33	32.9
DP 358RF	Monsanto / Delta Pine	3817	42.9	41.6	32.6	32.2	33	31.5
DP/OA-EXP. 38	Monsanto / Olvey & Assoc.	4026	43.4	42.0				
DP/OA-EXP. 48	Monsanto / Olvey & Assoc.	3820	43.5	42.7				
MEAN		3966	43.6	42.4				

* if values not shown, not in 2015 trials

** Shafter Research Gin is a smaller scale, commercial type gin with lint cleaners

The lint yields shown on the SUMMARY PAGE for this site were determined using the mini-gin turnout % data, which tends to be significantly higher than a more standard type of gin (such as the "Shafter Research Gin" which incorporates lint cleaners. 2015 trial gin turnouts determined using the "Shafter Research Gin" are provided for information only. Since they were determined using different fields in a different year, there is no expectation that the same gin turnouts would apply for 2016 field sites.

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Location: Buttonwillow area (Kern County)

HARVEST DATE: 10 / 26

Row spacing = 38 inches

VARIETY	SEED COMPANY	SEED COTTON (lbs/acre)	MINI-GIN LINT PERCENT (%)	MINI-GIN GIN TURNOUT (%)	LINT YIELD* *(calculated as seed cotton yield times Mini-Gin Turnout)	LINT YIELD (as % of Phy-841 RF yield)	SEEDCOTTON YIELD (as % of Phy-841 RF yield)
DP 348 RF	DPL / Monsanto	3464	39.7	38.3	1329	81	85
DP 358 RF	DPL / Monsanto	3338	38.8	37.3	1245	76	82
MON 16R 330 R2P	Monsanto	3383	39.7	38.1	1289	79	83
MON 16R 341 R2P	Monsanto	3928	40.7	38.9	1527	94	96
OA EXP 16-48	Monsanto / Olvey & Assoc.	3564	40.0	38.7	1378	84	87
PHY 841RF	Phytogen	4089	41.5	40.0	1633	100	100
PHY 881 RF	Phytogen	3973	40.8	39.4	1564	96	97
PHY 888 RF	Phytogen	3871	40.8	39.0	1509	92	95
HA 1432	Hazera						
HA 690	Hazera						
MEAN		3701	40.3	38.7	1434		
[a] LSD 0.05		259	0.9	0.9	122		
[a] LSD 0.10							
[b] %CV		4.8	1.5	1.6	5.8		
[c] P		0.000	0.000	0.000	0.000		

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Location: Corcoran area (Kings County)

HARVEST DATE: 11 / 01

VARIETY	SEED COMPANY	SEED COTTON (lbs/acre)	MINI-GIN LINT PERCENT (%)	MINI-GIN GIN TURNOUT (%)	LINT YIELD* *(calculated as seed cotton yield times Mini-Gin Turnout)	LINT YIELD (as % of Phy-841 RF yield)	SEEDCOTTON YIELD (as % of Phy-841 RF yield)
DP 348 RF	DPL / Monsanto	4779	41.7	39.3	1875	96	98
DP 358 RF	DPL / Monsanto	4910	42.8	39.3	1932	99	101
MON 16R 330 R2P	Monsanto	4587	42.4	39.9	1830	94	94
MON 16R 341 R2P	Monsanto	4858	41.6	39.2	1901	98	99
OA EXP 16-48	Monsanto / Olvey & Assoc.	4780	42.2	39.5	1886	97	98
PHY 841RF	Phytogen	4883	42.3	39.8	1944	100	100
PHY 881 RF	Phytogen	4717	42.0	39.9	1883	97	97
PHY 888 RF	Phytogen	4872	41.4	38.9	1898	98	100
HA 1432	Hazera						
HA 690	Hazera						
MEAN		4798	42.1	39.5	1894		
[a] LSD 0.05		NS	NS	NS	NS		
[a] LSD 0.10							
[b] %CV		3.8	1.9	1.9	4.7		
[c] P		0.252	0.268	0.527	0.737		

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Location: Riverdale area (Fresno County)

HARVEST DATE: 11 / 07

VARIETY	SEED COMPANY	SEED COTTON (lbs/acre)	MINI-GIN LINT PERCENT (%)	MINI-GIN GIN TURNOUT (%)	LINT YIELD* *(calculated as seed cotton yield times Mini-Gin Turnout)	LINT YIELD (as % of Phy-841 RF yield)	SEEDCOTTON YIELD (as % of Phy-841 RF yield)
DP 348 RF	DPL / Monsanto	2527	39.5	37.5	949	103	103
DP 358 RF	DPL / Monsanto	2260	38.9	37.0	837	90	92
MON 16R 330 R2P	Monsanto	2357	39.1	36.9	871	94	96
MON 16R 341 R2P	Monsanto	2297	40.4	37.9	871	94	94
OA EXP 16-48	Monsanto / Olvey & Assoc.	2463	39.7	37.3	920	99	101
PHY 841RF	Phytogen	2446	40.3	37.8	925	100	100
PHY 881 RF	Phytogen	2694	40.8	38.5	1038	112	110
PHY 888 RF	Phytogen	2597	39.8	37.4	970	105	106
HA 1432	Hazera						
HA 690	Hazera						
MEAN		2455	39.8	37.5	923		
[a] LSD 0.05		NS	0.7	0.8			
[a] LSD 0.10					99		
[b] %CV		8.6	1.2	1.5	8.9		
[c] P		0.102	0.000	0.010	0.051		

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Location: Los Banos area (Merced County)

HARVEST DATE: 10 / 30

VARIETY	SEED COMPANY	SEED COTTON (lbs/acre)	MINI-GIN LINT PERCENT (%)	MINI-GIN GIN TURNOUT (%)	LINT YIELD* *(calculated as seed cotton yield times Mini-Gin Turnout)	LINT YIELD (as % of Phy-841 RF yield)	SEEDCOTTON YIELD (as % of Phy-841 RF yield)
DP 348 RF	DPL / Monsanto	3224	41.6	39.6	1277	87	89
DP 358 RF	DPL / Monsanto	3422	40.9	39.1	1339	92	95
MON 16R 330 R2P	Monsanto	3247	41.5	40.0	1298	89	90
MON 16R 341 R2P	Monsanto	3631	41.9	40.0	1453	99	101
OA EXP 16-48	Monsanto / Olvey & Assoc.	3534	41.6	40.1	1415	97	98
PHY 841RF	Phytogen	3604	42.6	40.6	1462	100	100
PHY 881 RF	Phytogen	3667	42.6	40.5	1488	102	102
PHY 888 RF	Phytogen	3691	42.5	41.0	1512	103	102
HA 1432	Hazera	4994	39.2	37.8	1889	129	139
HA 690	Hazera	3643	38.2	36.9	1342	92	101
MEAN		3666	41.3	39.6	1448		
[a] LSD 0.05		286	0.8	1.0	106		
[b] %CV		5.4	1.3	1.7	5.0		
[c] P		0.000	0.000	0.000	0.000		

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