

## PIMA VARIETY TRIALS IN THE SAN JOAQUIN VALLEY

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The objectives of these studies with Pima cotton are primarily to evaluate new, approved, and high interest varieties under different environmental conditions and management regimes practiced at REC sites and grower fields across the San Joaquin Valley region of California. Variety evaluations for yield and quality performance for varieties submitted into these trials are initially the responsibility of the San Joaquin Valley Cotton Board. The farm advisors extend these evaluations by adding some continuing field testing of newly-approved and high interest varieties to the Pima tests of the SJV Cotton Board. Pima acreages continue to change. The reason for continuing changes in acreages is overall reductions in planted cotton acreage in California in recent years, but part is also related to increasing shifts to Pima. There are tradeoffs in shifting to Pima (typically reductions in yields) and in shifts to non-Acala Uplands (typically lower price for lint), and growers need reliable, unbiased information regarding expected lint yields and fiber quality in order to make reasonable, lower-risk decisions. Acreage will continue to be volatile with changing input costs and disparities in cotton prices between non-Acala Upland, Acala and Pima cottons.

The overall objective of this research is to develop a continuing data base on growth, development, yield and quality parameters of Pima varieties of cotton, focusing first on approved Pima varieties.

Varieties were tested under a range of environmental conditions and management across the test locations of the SJV. Field evaluations of Pima varieties were conducted at two UCCE Research Center locations (West Side and Shafter) plus four or five large-scale grower field trials. While we will try for one grower field site in each of the six San Joaquin Valley cotton-producing counties, in recent years it has been more difficult to identify cooperators in several counties. The tests are supervised by Bob Hutmacher in cooperation with the UCCE Agronomy Farm Advisors and other UC staff in each participating county.

Tests are done in randomized complete block designs with 3-4 replications. Harvest data is collected using commercial spindle pickers, with seed cotton weights determined for all replications. Six-pound samples of seed cotton are run through the Shafter REC research gin to determine turnout and lint percentage, and to provide samples to be sent in to vendors for HVI analyses and other quality evaluations. Results are tabulated by locations and statistically analyzed using analysis of variance and mean separation procedures.

Entries in these field evaluations for 2008 trials are included in the following tables:

**1<sup>st</sup> Year Screening Trials SJVCB Pima & UCCE Pima Trials.** These entries were grown in the smaller-scale UC Research Centers at Shafter and West Side.

2008					
Company providing seed	Variety Name	Year in SJVCB Testing Program	Company providing seed	Variety Name	Year in SJVCB Testing Program
Bayer	E-108	1	Bayer	E-208	1
Olvey & Assoc.	OA-360	1	Olvey & Assoc.	OA-361	1
Phytogen	PO7X-8206RF	1	Phytogen	PO7X-8210RF	1
Phytogen	PO7X-8212RF	1	Phytogen	PO7X-8213RF	1
Phytogen	PO7X-8214RF	1		S-7	SJVCB standard

**2<sup>nd</sup> and 3<sup>rd</sup> year SJVCB Pima & UCCE Pima Trials.** These evaluations were done at the UC Research Centers at Shafter and West Side, plus large-scale county grower locations.

2008					
Company providing seed	Variety Name	Year in SJVCB Testing Program	Company providing seed	Variety Name	Year in SJVCB Testing Program
Bayer	E-106	3	Phytogen	PHY-830	3
	S-7	SJVCB standard	Phytogen	PHY-800	Already approved
Delta and Pine Land	DP-340	Already approved	Delta and Pine Land	DP-357	Already approved
Delta and Pine Land	DP-353	Already approved	Hazera	*HA-195	High Interest

\*HA-195 is a hybrid included in the test at Grower and Farm Advisor request as a comparison – this HA-195 variety is not included at all locations (included or not as each grower/cooperator decides) .

**Testing Locations for 2008 Field Variety Trials (Joint UC and SJVCB Pima Programs):**

Sites for Field Trials in 2 <sup>nd</sup> & 3 <sup>rd</sup> year tests		Sites for Field Trials in 1 <sup>st</sup> year tests	
Shafter Research Center (Kern County)	Kings County (south of Corcoran)	West Side Research Center (Fresno Co.)	Shafter Research Center (Kern County)
Tulare County (north west of Lemoore)	Fresno County (south east of Huron)		
Fresno County (west of Riverdale)	West Side Research Center (Fresno Co.)		

**Data collection and availability from field trials:** Summaries of prior year results are available at <http://cottoninfo.ucdavis.edu>). In addition, results are presented at Workgroup meetings and at winter and spring grower/PCA meetings of the University of California.

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