

**DP 6207 ACALA and DP 340 PIMA – NEW VARIETIES FOR
THE SAN JOAQUIN VALLEY AND THE PIMA BELT**

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Abstract

DP 6207 Acala (OA-207), a new Acala variety for the San Joaquin Valley (SJV) in California, was developed by O & A, Inc. and approved for release by the San Joaquin Valley Cotton Board (SJVCB) for the 1999 season. A new Pima variety, DP 340 Pima (OA-340) was released for the 2001 season in Arizona, New Mexico and Texas. DP 340 Pima has been submitted for approval by the SJVCB for the 2001 season.

DP 6207 Acala demonstrated 5% higher yields than the standard, Maxxa, over 15 locations from 1997 to 1998 in both wilt and non-wilt soils (SJVCB, 1997-1998). DP 6207 Acala out-yielded Maxxa by 8% or 118 lbs./acre in the University of California Cooperative Extension Trials in 2000. DP 6207 Acala demonstrated excellent heat tolerance and had significantly lower seed coat fragments (SCF) than Maxxa (10% lower) in high temperature years (SJVCB 1997; 1999). The fiber of DP 6207 Acala exceeded Maxxa in length, strength, yarn tenacity (22's) and carded 50's break factor while PHY-72 and Nova fell significantly below Maxxa in yarn strength (22's) and combed 50's (SJVCB, 1998). DP 6207 Acala had earlier maturity than Maxxa over a 2 year period (SJVCB, 1997-1998). DP 6207 Acala had excellent *Verticillium* wilt resistance when compared to Maxxa, PHY-72, Nova and Riata (SJVCB 1997, 1998). Due to its compact boll, DP 6207 Acala did not string out or end up on the ground as evidenced by its 1.2% ground cotton value compared to 1.5% for Maxxa and 7% of yield as ground cotton for PHY-72. In addition to its higher lint yields, DP 6207 Acala provides added value in seed quantity demonstrating 7.5% more seed than Maxxa resulting in \$14-\$16 more in seed value per acre (SJVCB, 1998).

DP 6207 Acala has all the individual components that make it a complete package for the SJV. It has exceptional yields and Acala quality fiber exceeding the standard. It doesn't string out or end up on the ground. DP 6207 Acala is heat tolerant and *Verticillium* wilt resistant. It is the earliest maturing Acala and has SCF much lower than the standard.

DP 340 Pima has consistently been the highest yielding Pima across the Pima Belt (CA, AZ, NM, TX) due to its adaptability across a wide range of climactic conditions and soil types. In California trials, DP 340 Pima out-yielded the standard, S-7, as well as PHY-76 in all three years tested. DP 340 Pima demonstrated a 6% increase (72 lbs./acre) over S-7 and a 10% increase in yield (122 lbs./acre) over PHY-76 from 1998-2000 (SJVCB; 1998, 1999, 2000). In variety trials in 2000 in Arizona, DP 340 Pima showed a 4% increase in yield over S-7 and a 3% increase over DP 744. In New Mexico, DP 340 Pima showed a 2% increase in yield over S-7. In Texas, DP 340 Pima demonstrated an 11% increase (148 lbs./acre) in yield over S-7. DP 340 Pima has excellent seedling vigor and high quality fiber. In yarn strength for combed 80's, DP 340 Pima exceeded S-7 and PHY-76 (SJVCB, 1999). DP 340 Pima has excellent grades and consistently grades better (1's and 2's) than S-7 (2's and 3's) (SJVCB; 1998, 1999). DP 340 Pima has early to mid season maturity with DP HTO Pima being the earliest maturing, then S-7, and finally, DP 744, PHY-57 and PHY-76 showing mid to late season maturity.