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Table 1. Designations and pedigrees of ten upland cotton germplasm lines.

Designation	Pedigree
TAM 1025	PD 6520 × {[(AE-179 × T501) × (Deltapine 14 × Roger's Acala)] × (Paymaster 1209 × DSR6-19)}
TAM 1057	[79WW-1 (high fiber strength line of unknown origin)] × {[(Paymaster 1209 × DSR6-19) × [Lankart 57 × (Deltapine 14 × Roger's Acala)]] × Lankart 3840}
TAM 1074	[79XX-7 (high fiber strength line of unknown origin)] × PD 9232
TAM 1080	[79XX-10 (high fiber strength line of unknown origin)] × {Tamcot SP 21S × [(CA491A × Lankart 57) × 6M-10]}
TAM 2008	{[Lankart 57 × (Deltapine 14 × Roger's Acala)] × Lankart 3840} × {FJA 347 × {[Lankart 57 × (Deltapine 14 × Roger's Acala)] × Lankart 3840}}
TAM 2055	{[(AE-179 × T501) × (Deltapine 14 × Roger's Acala)] × (Paymaster 1209 × DSR6-19)] × PD 6992
TAM 2073	{FJA 347 × {[Lankart 57 × (Deltapine 14 × Roger's Acala)] × Lankart 3840}} × PD 9363
TAM 2111	PD 6142 × [79XX-5 (high fiber strength line of unknown origin)]
TAM 2112	PD 6142 × 79XX-10
TAM 2126	PD 6992 × {DES Anom 16 × [(DSR6-19 × CA998) × (DSR6-19 × CA998)]}

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References and Notes

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REGISTRATION OF 11 UPLAND COTTON GERMPLASM LINES HAVING ELEVATED LEVELS OF CONDENSED TANNINS

ELEVEN germplasm lines of cotton, *Gossypium hirsutum* L. (Reg. no. GP-442 to GP-452; PI 540274 to PI 540284), were released by the Texas Agricultural Experiment Station in November 1989. These germplasm lines were developed as part of a host-plant resistance breeding program designed to increase the level of condensed tannins. Condensed tannins have been shown to condition resistance to a variety of insect and disease pests in cotton (2).

These lines were developed by intercrossing the following breeding lines known to have or suspected of having elevated levels of condensed tannins or spidermite resistance: (Lankart 571 × T1124)-81-412; (CS8310 × T790)-51-3; (CS8310 × T1119)-81-440; (CS8310 × T791)-81-431; (CS8310 × T1123)-81-416; CLWR 1727; DR 19 HTSM; DS 23 HT3; DR9 M35-14-3; and NM 1258 D-1-2. Lines designated as "T*nnnn*" are primitive race stocks collected from Mexico, Belize, and India (3).

These lines were intercrossed by bulking pollen from all parents and pollinating emasculated flowers on all parents. The resulting F_1's were intercrossed following the same procedure in 1983. F_3 progeny rows having apparent agronomic fitness were selected in 1986. Plants within selected rows were bulked to give rise to the following germplasm lines: TAM 86CC-7; TAM 86DD-11; TAM 86CC-11; TAM 86DD-12; TAM 86CC-12; TAM 86DD-16; TAM 86CC-13; TAM 86DD-17; TAM 86CC-17; TAM 86DD-18; and TAM 86CC-18.

None of these lines varied significantly in condensed tannin content from 'Pima S-6' (*G. barbadense* L.), the high-tannin control, when averaged across 1987 and 1988. Condensed tannin concentrations were determined spectrophotometrically after extraction with acetone and reaction with HCl–butanol of mature leaves harvested at first bloom and/or 14 to 21 d post first bloom (1).

These germplasm lines were deficient in lint yield potential when compared with Tamcot CD3H, the high-yield control, at College Station, TX, in 1988. Fiber quality of lines ranged from equivalent to superior when compared with Tamcot CD3H. All lines had significantly lower true lint percent than Tamcot CD3H. TAM 86CC-13, 86DD-12, and 86DD-17 had significantly longer upper-half mean fiber lengths than Tamcot CD3H; while TAM 86CC-7, 86DD-12, 86DD-16, 86DD-17, and 86DD-18 had significantly higher fiber-bundle strengths than Tamcot CD3H.

Twenty-five seeds of each of these germplasm lines will be available for distribution from the corresponding author until supplies are exhausted.

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References and Notes

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REGISTRATION OF 17 UPLAND COTTON GERMPLASM LINES HAVING ELEVATED LEVELS OF CONDENSED TANNINS

SEVENTEEN germplasm lines of cotton, *Gossypium hirsutum* L. (Reg. no. GP-453 to GP-469; PI 540285 to PI 540301), were released by the Texas Agricultural Experiment Station in November, 1989. These germplasm lines were developed as part of a host-plant resistance breeding program designed to increase the level of condensed tannins. Condensed tannins have been shown to condition resistance to a variety of insect and disease pests in cotton (2).

These lines were derived by hybridization and pedigree selection. During F_2 and F_3 generations, individual plants were selected in the greenhouse and/or field in the presence of two-spotted spidermite. Selections within and among resulting progeny were based on apparent agronomic fitness and chemical analysis of condensed tannin concentration in mature leaves. Condensed tannin concentrations were determined spectrophotometrically after extraction with aceton and reaction with HCl-Butanol of mature leaves harvested at first bloom and/or 14 to 21 days post first bloom (1).