

**CROSS-POLLINATION
IN COTTON WINTER NURSERIES**
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Abstract

Cross-pollination in cotton (Gossypium hirsutum L.) was estimated at the winter nurseries near Manzanillo, Mexico (over 14 years) and near Christ Church, Barbados (over 3 years) using a homozygous glandless line, 21D111-112, grown as a single short progeny row and surrounded by glanded cotton. The objectives of the study were to describe the variation in cross-pollination of cotton between the two nurseries and over seasons at each nursery and to characterize the degree of cross-pollination in cotton as a crop. All counts were made on seed. Twenty-four cross-pollination counts in cotton near Manzanillo, Mexico ranged from 1.1 to 16.9% (averaging 6.3%). Two higher estimates (27.1 and 31.3%) likely resulted from errors in harvesting. Three cross-pollination counts in cotton near Christ Church, Barbados varied from 1.0 to 9.2% (averaging 4.0%). The level of cross-pollination at both locations is probably sufficient to require selfing in conventional breeding, but lacking in degree and/or dependability to efficiently produce hybrids. In these nurseries, cotton more closely resembled a self-pollinated crop.