Evaluation of the In Situ Status of Cotton Germplasm in Southern Mexico. (C08-stewart112918-Oral)

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Abstract:

Mexico has eleven known endemic species of Gossypium and is the center of origin and diversity of cotton (G. hirsutum). A germplasm collection expedition was conducted in southern Mexico to document the status of landraces and the range and diversity of wild diploid Gossypium species. Parts of Puebla, Chiapas, Oaxaca, Guerrero, Michoacan, Morelos, and Mexico were covered. Accessions collected included G. aridum (15), G. barbadense (9), G. gossypioides (2), G. hirsutum (52), G. laxum (5), G. lobatum (1) and G. schwendimanii (1) and one unidentified accession. The landraces survive only as garden plants or feral escapes. Survival outside a garden or disturbed waste area is questionable. The most phenotypic diversity occurred in Chiapas. Race Palmeri seems better adapted to survival in the marginal environments of Oaxaca and Guerrero than other races. G. aridum is the most widely distributed diploid Gossypium species in Mexico, but regional ecotypes are apparent. The uniqueness of the Rio Balsas watershed in relation to Gossypium became apparent. The diploid species related to G. aridum, including the unidentified accession, are endemic to this watershed. The known range of G. laxum was extended from a single canyon (Zopilote) to several kilometers eastward.

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