Taxonomic Relationships among peanut wild species as revealed by AFLP markers. (C08-milla214833-Poster)

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Abstract:

The amplified fragment length polymorphism (AFLP) technique was used to assess the genetic diversity in the main section (Arachis) of the genus Arachis. Ten cultivars and unadapted germplasm lines representing all six botanical varieties of domesticated peanut (A. hypogaea), 5 accessions of its wild allotetraploid progenitor (A. monticola), and 24 diploid wild Arachis species represented by 98 accessions were evaluated with eight AFLP primer combinations. The objectives of the study were to: i) determine the phylogenetic relationships among the diploid Arachis species evaluated, and ii)establish the wild diploid species that hybridized to produce tetraploid peanut. A large amount of variability was observed within and among species, with the exception of A. hypogaea and A. monticola, which showed very little variation. Results are discussed in regard to their relavance to plant evolution and plant breeding.

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