

ADDENDUM

This abstract from a paper presented as part of the Graduate Student Competition at the 1988 Annual Meeting was inadvertently omitted from the August issue of the American Potato Journal.

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Crossability of 1EBN Wild Potato Species With Group Tuberosum Haploids

Twelve diploid wild species categorized as 1EBN under the Endosperm Balance Number (EBN) hypothesis have many desirable characteristics which would be useful in a potato breeding program. Interspecific crosses between 1EBN species and cultivated *S. tuberosum* have been largely unsuccessful. Utilizing the EBN theory, a crossing scheme involving female Group Tuberosum haploids X 1EBN, 2n pollen producers and colchicine-doubled 1EBN clones was initiated. A total of 6,781 pollinations utilizing male parents derived from 8 1EBN species resulted in the production of 13 Tuberosum-*commersonii* (cmm) hybrids and 9 Tuberosum-*chancayense* (chn) hybrids. The majority (90%) of seed obtained was from the use of *chn* 2n pollen producers and a colchicine-doubled (4x) *cmm* clone. Many male parents from other species had higher frequencies of 2n pollen or were also colchicine-doubled clones, yet no seed was obtained. Stylar-pollen tube growth analyses were undertaken. Preliminary studies indicate that interspecific incompatibility appears to be present when certain 1EBN species are used as males.