Using *Arachis Vallsii* Krapov. & W.C. Greg. as a Bridge Species for Introgression in *Arachis*

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Introgression in *Arachis* has been used successfully for several different genetic traits. Simpson and Starr released the first introgressed cultivar in 1999 when they brought the 'COAN' peanut to market. This was not the first peanut cultivar released from an interspecific cross because Hammons released 'Spancross' in 1970 and Simpson and Smith released 'Tamnut 74' in 1974. Both of these cultivars were derived from crosses with *A. monticola* that was highly introgressed with *A. hypogaea* genes. However, COAN was the first to be released with identifiable genetic traits being transferred, in this case, resistance to the rootknot nematode, *Meloidogyne arenaria* and *M. javanica*. The key to successful introgression is having a pathway to take the trait from a wild *Arachis* species to the cultivated peanut *A. hypogaea*. This process has been expedited by the use of molecular markers to do MAS (marker assisted selection). However, in many cases, whether using intra- or inter-sectional introgression, a bridge species is essential. In the case of COAN, many unsuccessful attempts to gain fertile hybrids resulted from crossing only A genome materials with cultivated peanut. When the B genome *A. batizocoi* (now K genome) was introduced into the mix, fertile hybrids were obtained, and the introgression of nematode resistance progressed to a conclusion. Many different possible bridge species have been researched over the past 30 years, and now we are using one that appears to have great potential for expanding the viable window of introgression. *Arachis vallsii* Krapov & W.C. Greg. has been working well for crossing with many diverse groups. We have crossed *A.* vallsii with members of 5 sections, three intersectional hybrids, and 5 different genomes and/or genome combinations of the *Arachis* and *Procumbentes* sections. This species was originally placed in the section *Procumbentes* by Krapovickas and Gregory in the Monograph, but several studies and numerous efforts by the authors of this paper, and others, have indicated that the species does not fit well in *Procumbentes* when all aspects of classification are considered, and especially cross-compatibility. Because of the wide range of successful hybrids we have made, *A. vallsii* appears to be an ideal parent to use as a bridge species. *Arachis vallsii* probably fits better in the *Arachis* section, or better yet in a section of its own; Section X.