

Domestication of macadamia in Hawai'i

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While Australia is the natural origin of macadamia, Hawaii led much of the development of the plant into an international premium commercial crop. An understanding of the domestication of macadamia in Hawaii is important as it will add to the overall history of the crop and improve conservation and use of genetic resources. There are two well-known introductions of *Macadamia integrifolia* (the preferred species for commercial production) into Hawaii, and one introduction of *M. tetraphylla* (originally used for the establishment of the first seedling orchards in the 1910's, but superseded by the late 1920's). However, there is also evidence of a third introduction of *M. integrifolia* in the early 20th century, an early introduction of the bitter kernel *M. ternifolia*, and selections from Australia were introduced in the mid-1950's. Following the development of vegetative propagation technology in the 1930's, selections from initial seedling orchards established in the 1920's and 30's were developed into the first generation cultivars. Recently, remnants of the early introductions and the original seedling orchard have been identified and sampled for chloroplast sequencing that have identified the wild origin of the maternal line of the Hawaiian cultivars. These results are in conflict with previously accepted records for the origin of germplasm considered to contribute to these cultivars. Further research is required to evaluate the importance of the third *M. integrifolia* introduction, and the source of the *M. ternifolia* introduction.