

## **Development of artificial hybridization techniques for macadamia to create a 'Kau' x 'Burdick' mapping population**

P. Boches<sup>1</sup> and R. Ming<sup>2</sup>

<sup>1</sup>USDA-ARS; <sup>2</sup>University of Illinois;

Due to a high degree of self-incompatibility in macadamia and the difficulty of emasculating macadamia flowers, breeding populations in Hawaii have traditionally been created using open pollinated seed or by making crosses without emasculation. In order to develop a linkage mapping population using the cultivars 'Kau' and 'Burdick', a technique for emasculating and pollinating macadamia flowers was developed. The results of making crosses with pollen stored for up to 60 days was also investigated. The success rate for the 'Kau' x 'Burdick' cross was low (5.2%). However, crosses using pollen stored in a desiccator under refrigeration for up to 60 days were successful.