

Missouri Botanical Garden's Support of *Ex-situ* Conservation with Living Collections¹

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Abstract

The Missouri Botanical Garden's living collections are critical for supporting its multi-disciplinary strategy of integrated plant conservation. The Garden is increasing *ex-situ* collections of plants in need of conservation to build species diversity into its displays for visitor education. Current areas of focus include native Missouri species and International Union for Conservation of Nature and Natural Resources (IUCN) Red Listed genera from around the world. Several key projects support this initiative. These include development of a Living Collections Management System (LCMS), establishment of a seed bank, and opening of the new Oertli Family Hardy Plant Nursery in the spring of 2017. Data recorded in LCMS include field collection information, propagation and cultivation data, location on the Garden's grounds, and much more. The seed bank has two main goals: to serve as a hub for long term seed storage needs on an institutional level, and to collect and conserve Missouri's native flora. The 2.6 ha (6.5ac) Oertli Family Hardy Plant Nursery will be approximately 5 minutes south of the Garden's main campus and will include a 1, 208 m² (13,000 ft²) greenhouse with climate controlled environments for seed, cuttings, and liner and pot production. Well-documented and responsibly collected plants of wild origin will be grown at the nursery for the Garden's outdoor displays and collections. As plants are propagated, data is recorded and stored in LCMS, providing propagation protocols to aid in plant conservation efforts. Through these additional capacities, the Missouri Botanical Garden will aid in conserving the world's flora and increase its impact to stem the loss of plant species.

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