Propagating Welsh's Milkweed

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Welsh’s Milkweed (Asclepias welshii) is a threatened species found in Southern Utah. Almost no research has been conducted on how this species reproduces itself. Genetic testing of the species indicated that very little genetic diversity occurs within the population (USFWS 2015). Researchers need to understand the reproductive methods of Federally listed species, so that recovery can be obtained. The purpose of this study was to investigate how best to assist the Welsh’s Milkweed reproduction processes in an effort to support increased population growth and genetic diversity. First, root cuttings and seeds from three different areas on the sand dunes native to the species were gathered. The root cuttings were immediately planted in pots filled with native sandy substrate. One-third of the seeds were cold treated, one-third of the seeds were scarred using light sandpaper, and one-third of the seeds were left untreated. The seeds were then divided further by placing some seeds in trays containing native sand and others in trays containing potting soil. Seven of the eight root cuttings (87%) sprouted adult sized stems. Seeds sprouted in the potting soil, but they all turned yellow and died within two weeks of sprouting. However, 80% of the untreated seeds; 6% of the cold treated seeds; and none of the scar treated seeds sprouted in the native substrate. This research study proves asexual reproduction (cloning) has a higher propagation rate and produces a stronger plant more effectively than sexual reproduction. However, asexual reproduction ensures that genetic diversity stays low. For this reason, it is important for researchers to continue to test and understand the pollination and sexual reproduction methods of the species.

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