Multiplication of Weberbauer Cactus Seedlings Using HAS (Hydroponic Autotrophic System), from Microcuttings of Vitroplants for Its Reforestation

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The family Cactaceae is recognized in Peru due to its great diversity of life forms, distributed along coastal desert, crossing the Andes Mountains and inter-Andean valleys to the Amazon tropical forest. In general terms, regarding growth and spread, it is stated that these individuals have a slow growth. This project helps us to know the problem that the Weberbauer cactus (Weberbauerocerus weberbaueri) faces, categorized by IUCN as Near Threatened (NT), under the plant species list included in Annex I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); distributed in the city of Arequipa, which is an important element of the desert ecosystem. It even provides refugee and is a special diet of the Platalina genovensium (Peruvian long-snouted bat), classified “at a Critical Risk” (CR), and other species such as Patagona gigas, Rhodopis vesper and the guanaco Lama guanicoe. For this reason, it is possible to observe that a decrease in the number of specimens would not only affect the Weberbauer cactus, but it would also harm other species since many of them exclusively depend on the Weberbauer cactus, thus altering their ecosystem. In addition, there would be a risk of losing many endemic species of Arequipa and of suffering from plagues, deceases, and other consequences related to destruction or habitat change. In this regard, Through the Hydroponic Autotrophic System (HAS), with seedlings obtained in vitro, it is likely to multiply weberbauer cactus seedlings in less time, whose acclimatization to hothouse and transplant to the field will be much easier and efficient.

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