BIOFOMEX: Mexican Foliar Biofertilizer

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Agricultural soils in the state of Chihuahua, Northwest Mexico are desert and low in organic material. Also, usually the conventional production of crops is associated with the green revolution technology packages that have deteriorated environmental resources such as water and soil, affecting the good quality of harvested by farmers. Therefore, there is a need to fertilize crops and restore the potential of the soil. The objective of the project was the creation of an eco-friendly biofertilizer based on serum of Peel banana and by-products from harvest (manure, leaf litter, ashes, etc.). During the investigation, the biofertilizer was applied to a cultivation of chili chilaca (Capsicum annun anaheim); it was prepared from waste food and agricultural by-products and applied one time directly to the sandy soil and every 7 days (from September 1 to October 28, 2017) in leaf of chili chilaca crops. For the experimentation it was used a sample control (water pure) and three treatments with a concentration of 10%, 20% and 30%, each treatment was applied in 10 plants. During the crop growth, it was evaluated the root, stem and leaf of each plant. The conclusion was that the biofertilizer created in this project is an alternative that provides the necessary nutrients for the plant and the sandy soil in which it is experienced, without affecting the existing natural environments in the area. Based on the results of this project, it was determined that the optimal concentration for the biofertilizer BIOFOMEX chilaca chili's growth was 20%, as observed by the higher growth in the root, stem and leaf without altering its development in plants, during the phase of experimentation.

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