Comparative Analysis on the Effect of the Dosage of Hydrogen Peroxide in the Germination Process in Legumes Phaseolus vulgaris L. (Pink and Red Bean Variety) and Cicer arietinum (Chickpea)

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The soil is the most important resource in agriculture. However, every day it is found in poor conditions, or even available. The population growth and change in consumption patterns force us to make the most of the land. In other words, more products must be produced with less resources. On the other hand, the Food and Agriculture Organization of the United Nations (FAO) has presented a report in which presents legumes as a great ally in the struggle to restore and maintain land in good condition (Loarden, 2016). Given the, this research seeks to maximize the possibility of germination and gradual reproduction of legumes. For this, a culture solution is used, being Hydrogen Peroxide in different dilutions the variable to be tested. As a result, it was found that in the Phaseolus vulgaris L. (pink color) in high concentrations of Hydrogen peroxide germinate faster, compared with the control, while Cicer arietinum (chickpea) in medium concentrations germinate faster compared with the control. It maximizes the germination process, surpassing the basic germination method. According to the observations made, it is concluded that Hydrogen Peroxide is an effective agent accelerating the germination process in part of the vegetables examined. With the expected population growth and soil scarcity, it is necessary to maximize the productions of legumes for the benefits it represents to the consumer, the economy and the natural resources that is presented in the soil.

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