PO132 NALCA (Gunnera tinctoria) PROPAGATION AND MORPHOLOGICAL DESCRIPTION OF GERMINATION PROCESS

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Introduction

The Gunneraceae family is represented in Chile by the species Gunnera tinctoria, commonly called nalca or pangue. It is a perennial herb that reaches large 2-3 m. tall, fast growing (Riedemann y Aldunate, 2003). Today, this species has gained interest in the pharmacological area, the inhibitory activity of the Gunnera tinctoria extracts on Helicobacter pylori (Hebel et al, 2013).

In the present study, two assays were performed. The first worked with chemical scarification for 0, 5 and 20 minutes and stratification at 4 $^{\circ}$ C for 0, 30 and 60 days. In the second test the seeds were subjected to different concentrations of gibberellic acid for 24 hrs. Anatomically, it was described using a Scanning Electron Microscope.

The germination percentage of the assay I was 52% and the highest germination percentage was 89% in the assay II. The results suggest the presence of a primary structure following 21 days of germination process. The parasitic stomata are present on the abaxial surface of the cotyledon which are present in adult leaves (Urbina et al, 2012) The results are shown in photograph poster.

Based on the results it can be concluded that the most effective treatment for a high percentage of germination is GA3 (89%).

References

- 1. Hebel, S., A. García, L. Bustamante, L. Pinuer, E. Torres, A. Urbina y E. Pastene. 2013. Efecto de los polifenoles de Gunnera Tinctoria (nalca) sobre la viabilidad y morfología de Helicobacter Pylori. Dominguezia 29 (Suplemento): 105.
- 2. Riedemann, P. y G. Aldunate. 2003. Flora nátiva de valor ornamental: identificación y propagación: Chile zona sur. Andrés Bello. Santiago, Chile.
- A. Urbina, L.Vízcarra, E. Pastene y H. Serri. 2013. Caracterización morfológica y anatómica de la semilla y primeros estados fenológicos de Gunnera tinctoria. Dominguezia 29 (Suplemento): 38.