

**USE OF MANGOSTEEN LEAF EXTRACT AS INVIGORATION MATERIAL
ON SOYBEAN SEEDS GROWING UNDER CONDITIONS OF SALINITY
STRESS**

Desi Rahmawati¹, Maman Suryaman², Adam Saepudin²

¹Graduate Student of Agrotechnology, Siliwangi University

²Supervisor of Graduate Student of Agrotechnology, Siliwangi University

ABSTRACT

Salinity stress affects almost all physiological, biochemical processes and stages of plant growth. Seed invigoration is the treatment given to seeds before planting with the aim of improving plant germination and growth. The purpose of this study was to obtain the best concentration of mangosteen leaf extract to improve soybean germination and vegetative growth in saline soil. The research was conducted at the Siliwangi Mugarsari University Campus in October 2019 until May 2020. The treatment consisted of two factors using a randomized block design, three replications. Factor I The concentration of mangosteen leaf extract (13 ppm, 26 ppm, 39 ppm), and factor II is the concentration of NaCl (without NaCl, 3000 ppm and 6000 ppm). The results showed that there was no interaction between the concentration of mangosteen leaf extract and the concentration of NaCl. , independently the concentration of mangosteen leaf extract had a significant effect on plant height 2 weeks after planting, where the concentration of 26 ppm mangosteen leaf extract gave the highest plant height of 19.64 cm. NaCl concentration had a significant effect, NaCl concentration of 6000 ppm was able to reduce germination to 23.33%, growth speed to 4.64%, dry weight of sprouts 3.78 g and root dry weight 1,656 g.

KatKey words: Soybean, Invigoration, Salinity