

TITLE: EVALUATION OF PHYSIOLOGICAL QUALITY OF SOYBEAN SEEDS (GLYCINE MAX L. Merrill) TREATED WITH DIFFERENT METABOLITES OF ENDOFITICS

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ABSTRACT:

Currently, soybean cultivation has gained momentum in the market due to the wide application that can be used, such as: soybean oil, soybean meal, soy milk, etc., providing high yield to producers. For those who work in the seed trade, different techniques have been applied to obtain a higher crop yield and higher yield. The study and treatment of seed improvement has been a big business, but growers need to be monitored, because growing soybeans requires great care, starting from the grain storage location, ideal for storage, and Careful planting to avoid possible pests and fungi that are common in plants and seeds. Thus, with the advancement of studies on biological control measures to combat pests, it was identified that colonizing endophytic microorganisms that act within plant tissues and that do not cause damage to the host, can carry out a symbiotic relationship with the plant, generating some advantages . Thus, the present study focused on the physiological quality of soybean seeds treated with 4 different endophytic metabolites to evaluate the germination, viability and vigor potential of the CD 214RR and CD 201 varieties. The preconditioning technique was used with immersion and without Immersing the seeds, where they were placed under a stainless steel screen and then transferred to a gerbox containing 40 ml of distilled water and 100 µL of metabolite and kept at 25 ° C for 16 hours. After the seeds were submitted to the paper roll germination test and tetrazolium test. The results showed signs of increase in the germination levels for the four metabolites and for the two treatments (immersion and without immersion). When comparing cultivars CD 214RR and CD 201 all the metabolites contributed to an improvement in germination. This shows that the direct use of metabolites produced by endophytes isolated from plants showed to be positive in most of the analyzed varieties, presenting relatively greater results in relation to the control samples, indicating that the metabolites isolated from endophytes may have acted as promoters of germination , We conclude that the treatment is adequate for seed improvement.

Keywords: Quality physiological metabolites endophytes, Glycine max, Soybean cultivation.