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INFLUENCE OF PRETREATMENT WITH SALICYLIC ACID ON SEEDS GERMINATION TRAITS OF TWO FABA BEAN GENOTYPES *VICIA FABEA* L.

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ABSTRACT

Seed germination is the critical stage for almost all species. The present study aims to evaluate the effects of seeds priming with different concentrations of salicylic acid on seeds germination of faba bean *Vicia faba* L., an important pulse species in the Mediterranean region. The obtained results indicated that seeds priming with salicylic acid improved and enhanced germination characteristics. In general, the difference between the two genotypes was more quantitative than qualitative. Besides, the low concentrations of salicylic acid were more effective on seeds germination. In fact, the germination of the genotype Histal reaches its maximum under the treatment with 0.05 mM while the seeds of the genotype Aguadulce germinated better under 0.1 mM salicylic acid. This finding demonstrates the importance of seed priming with low concentration of salicylic acid to speed up the germination time. Overall, the beneficial effects of salicylic acid on seeds germination will provide practical basis for faba bean cultivation.

Key words: faba bean, salicylic acid, germination characteristics, proteins, proline.