# Effect of Priming and th Plant Growth Regulators Priming Treatment on the Germination in Perilla Seeds. (C04-son034103-Poster)

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## Abstract:

The purpose of this research was to search for optimized priming conditions and growth regulators for improving seed performance of perilla. Among the nine different chemicals, at two concentrations each, Ca(NO3)2 at 200 mM resulted in the shortest days to 50% of the final germination percentage(T50). Seeds primed at 20C for 3 days germinated most rapidly at 25C temperature tested. Air-drying for 3h at 30C and room temperature after priming maintained all the advantages achieved during priming treatment. However dried at 50C significantly reduced germination and beneficial effect were lost gained by priming. Priming has improved the rate and uniformity of seed germination in perilla, especially under adverse environmental such as osmotic,salt,and ABA stress. Germinability was decreased under the increased stress from osmotic, salt, and ABA. The effect of plant growth regulators varied among cultivar. Plant growth regulators treated did not affect percentage germination of all perilla seeds, but showed shorter number of days to 50% of the final germination(T50) and mean number of days to germination(MDG) than those untreated seeds. The germination behavior of all cultivar was highly correlated with plant growth regulators kinds and their concentrations.

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