

Nitiphum Charoensrisumphan 2012: Effect of Chemical Priming on the Germination of Pepper Seeds (*Capsicum annuum* L.). Master of Science (Horticulture), Major Field: Horticulture, Department of Horticulture.

Thesis Advisor: Miss Pichitra Kaewsorn, Ph.D. 67 pages.

The effect of chemical priming on the germination of pepper seeds were investigated at Department of Horticulture, Kasetsart University, Bangkhen Campus during September in 2010 to July 2011. The results revealed that primed seeds in 0.015% GA<sub>3</sub> tended to gave highest germination in both laboratory and greenhouse (70.5 and 88.1%, respectively) and shortest mean germination time (9.1 days). While primed seeds in 0.015% salicylic acid (SA) showed lowest germination in both laboratory and greenhouse (62.3 and 79.3%, respectively) and longest mean germination time (9.9 days). Moreover, seed incubating for 1 day gave higher germination in both laboratory and greenhouse (81.5 and 90.5%, respectively) and shorter mean germination time than non-incubation (9.2 and 10.3 days, respectively). Therefore, primed seeds in 0.015% GA<sub>3</sub> with seed incubating for 1 day tended to gave shortest mean germination time. In addition, the storage of primed seeds for 6 months showed decreasing of germination in both laboratory and greenhouse when compared with control (non-priming).

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