

# THE STUDY OF USING SILVER NANOPARTICLES TO INCREASE SEEDLING QUALITY AND COLTROL ANTHRACNOSE DISEASES ON CHILI *CAPSICUM FRUTESCENS*

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## Summary

The study of using silver nanoparticles to increase seedling quality and control anthracnose diseases on chili *Capsicum frutescens* was carried out from December 2017 to August 2018 in Ba Ria – Vung Tau province with two experiments. The first experiment was designed in the net house with 14 treatments, 3 replications, 100 seeds in each replication. The second experiment was designed in split plot style with 10 treatments, 3 replications, plot size 50 square meters. The results indicated that soaking chili seeds in silver nanoparticles solution at concentration of 2ppm for 2 hours increased the germination rate by 15.84% at 14 days after seeding, root length increased by 18.22% and high seedling increased by 14.51% in comparison with soaking chili seeds in distilled warter treatment. Germination rate of using silver nanoparticles at 2ppm concentration was also higher than the using silver nanoparticles treatments at other concentration as 0.5ppm, 1ppm, 1.5ppm, 2.5ppm and 3ppm, but root length and height seedling were the same at 2.5ppm and 3ppm soaking concentrations. Spraying silver nanoparticles with concentration of 60 - 80ppm was possible to control 78.98 - 80.24% disease at 7 days after spraying.

**Key words:** *Anthracnose disease, Mifum 0.6SL, chili Capsicum frutescens*