

Theerarat Chinnasaen 2011: Effect of Seed Drying Using Zeolite Bead on Quality and Storability of Tomato Seed (*Lycopersicon esculentum* Mill.). Master of Science (Agriculture), Major Field: Horticulture, Department of Horticulture. Thesis Advisor: Miss Pariyanuj Chulaka, Ph.D. 68 pages.

This research was carried out to evaluate the seed quality and storability of tomato seed dried by zeolite bead during February in 2009 to April in 2010. The 12 or 15% initial moisture contents of tomato seeds were used. They were dried by zeolite bead at different mixture between seed and bead (30, 40 or 50%w/w). The results showed the seed moisture content (SMC) was significantly different among treatments. The SMC in all treatments reached to 5 – 6% within 2 hours after drying excluding 15% initial moisture content dried with 30 and 40% bead (9 and 7%, respectively). In addition, the tomato seed quality of 5 – 6%SMC that dried by zeolite bead within 1 or 2 hours were not significantly different when compared with those dried by shade drying after seed germination testing in all storage times (0, 2, 6 and 12 months). All tomato seeds showed 95 – 100% germination, 5 – 6 days of mean germination time and germination index were 8 – 9.

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Student's signature

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Thesis Advisor's signature