

**EFFECT OF INITIAL SEED MOISTURE CONTENT  
ON SEED GROWTH QUALITY PARAMETERS,  
STORABILITY AND SEED BORNE DISEASES OF  
BRINJAL (*Solanum melongina* L.)**

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By  
**KAYALVIZHY SIVAPATHAM**

**Export Agriculture Degree Programme  
Faculty of Animal Science and Export Agriculture  
Uva Wellassa University of Sri Lanka**

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## ABSTRACT

Quality seed is the basis in higher agricultural productivity and average seed germination in brinjal was reported as below 70% under local conditions. This problem was reported especially in “Lenairi” and “Padagoda” brinjal varieties. Hence this experiment was carried out to compare the effect of Initial Seed Moisture Content (ISMC) on growth quality parameters and seed borne diseases under non storage and storage condition in different brinjal varieties. Experiment was designed in Complete Randomized Design with two and three factors having four replicates in each under non storage and storage conditions respectively. Three ISMC were taken for the study namely 9%, 8%, 7% and four different varieties Lenairi, Padagoda, Thinnavelli purple, and Amanda. Brinjal seeds were tested initially for growth quality parameters and seed borne diseases under non storage condition and then samples were stored for two months in ambient and refrigerator conditions. Findings revealed that, there was a highly significant effect of ISMC, variety and storage condition on seed germination and vigor. Under non storage condition highest germination percentage value was recorded in Padagoda at 9% ISMC. Highest vigor index value was recorded in Thinnavelli purple at 9% ISMC and lowest seed borne pathogen percentage value was recorded in Lenairi at 8% ISMC. Under storage condition highest germination percentage value was recorded in Padagoda at 8% ISMC stored in refrigerator. Highest vigor index value was recorded in Amanda at 9% ISMC stored in refrigerator and lowest seed borne pathogen percentage value was recorded in Padagoda at 9% ISMC stored in refrigerator and in Amanda at 9%, 8%, 7% ISMC stored in room temperature and refrigerator condition. There was an association between the ISMC in seed viability under both non storage and storage conditions.

**Key Words:** Brinjal varieties, Initial seed moisture content, Germination percentage, Seed vigor, Seed viability, Seed borne pathogens