

Fruit Storage of Bitter Gourd (*Momordica charantia*) to Enhance its Seedling Vigor

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Introduction

► Nutritional benefits

- rich in β -carotene, zeaxanthin, and lycopene (ripe), and lutein and α -caroten (immature fruit)

► Causes of poor vigor

- unpredictable weather conditions
- infestation of pests and disease infection
- unsuitable fruit maturity

► Fruit storage as strategy

- reach physiological maturity
- improve seedling vigor in Ilocos Green cultivar

Main Findings

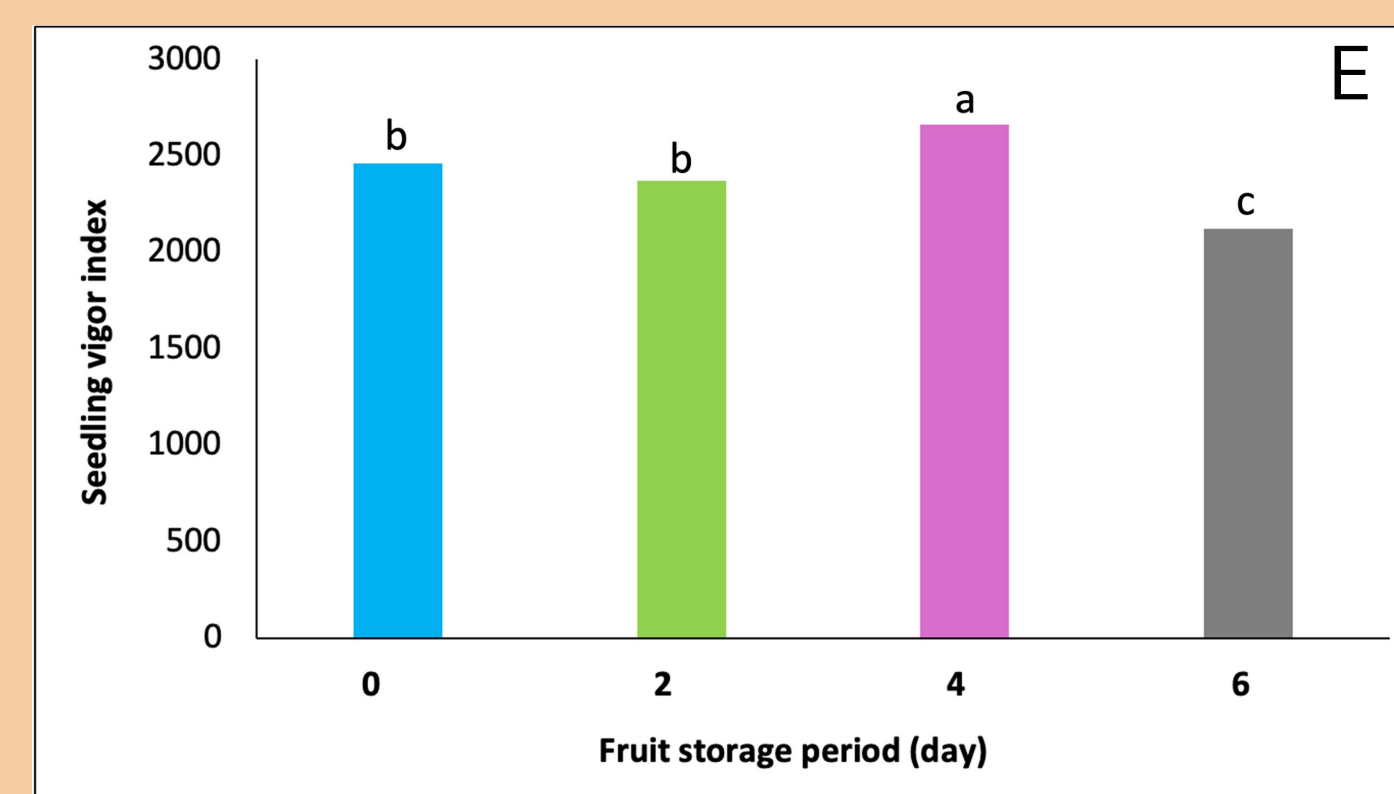
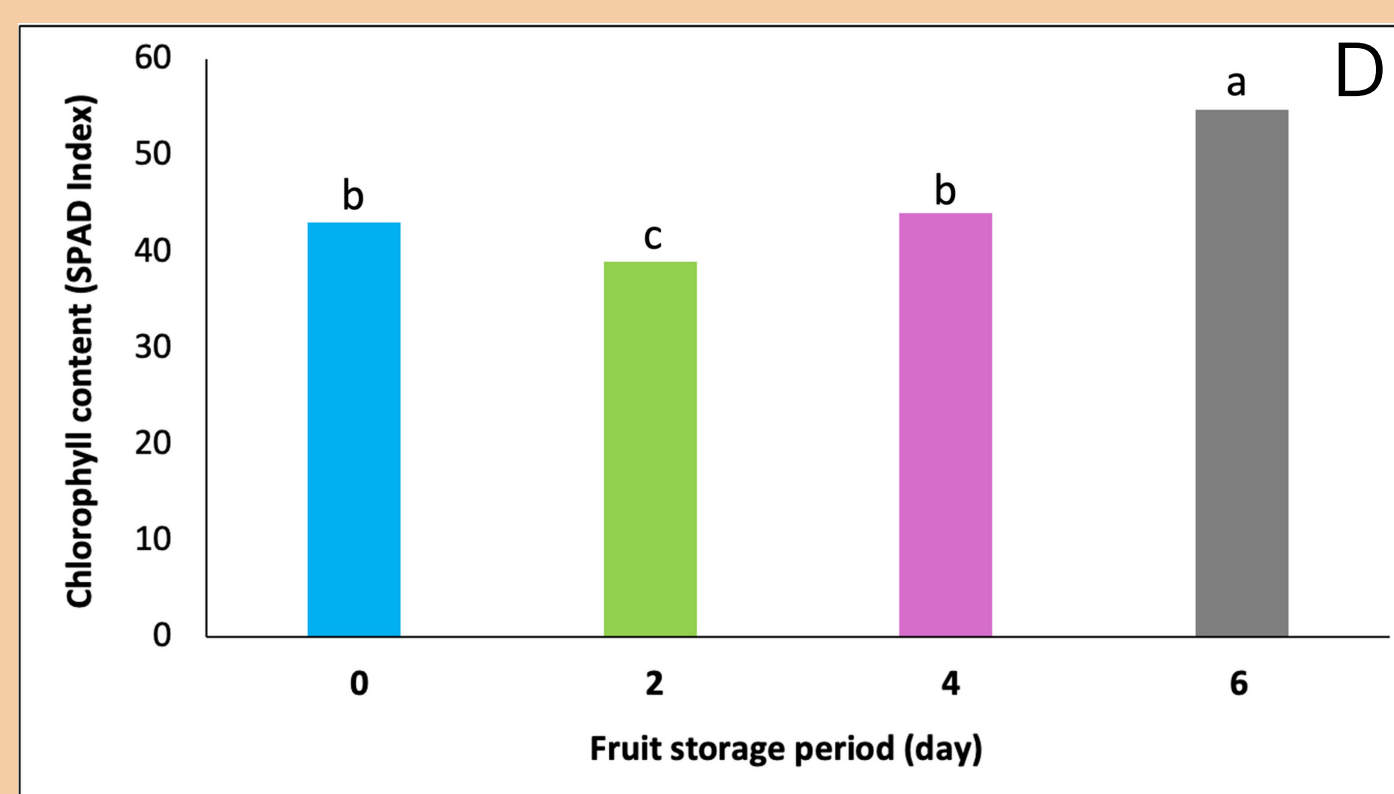
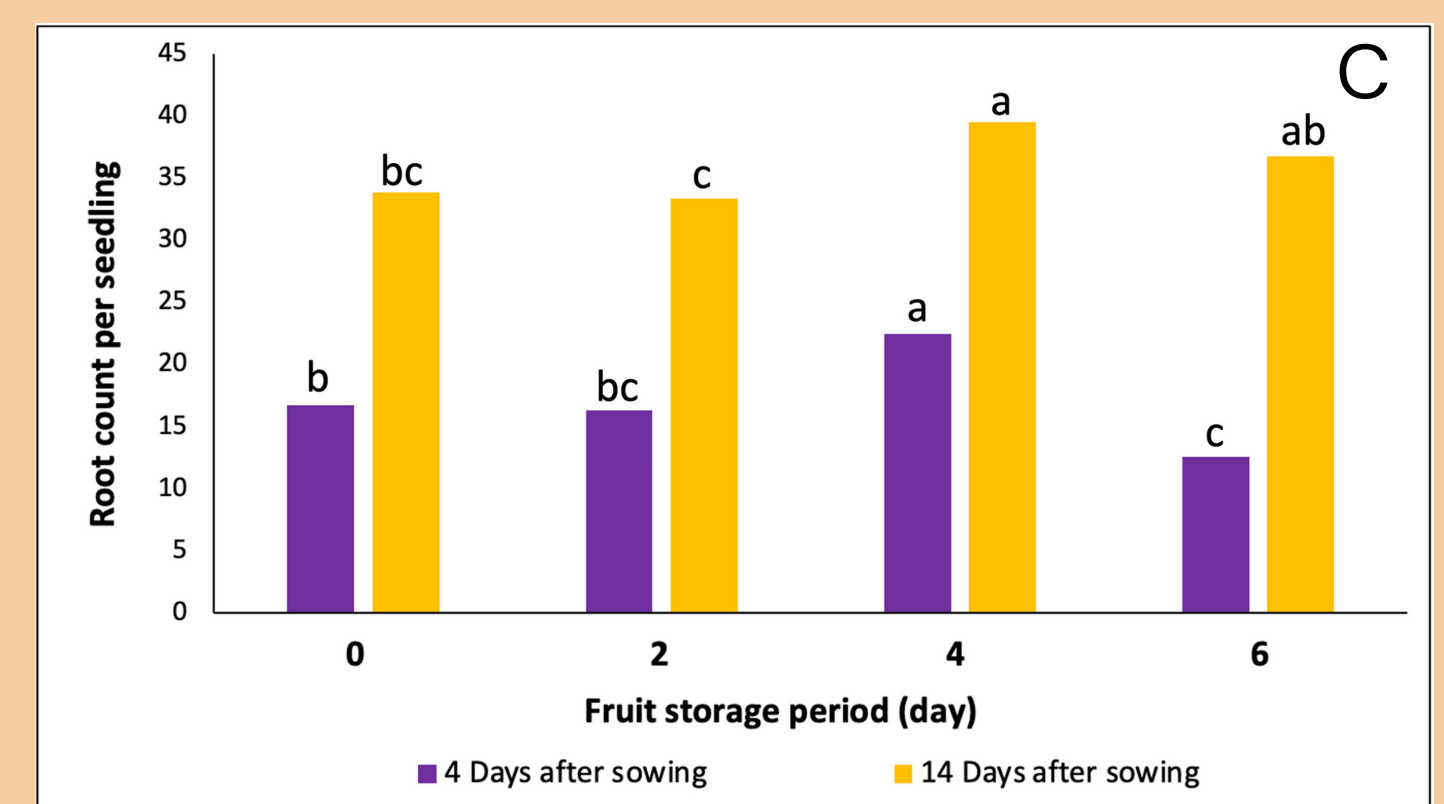
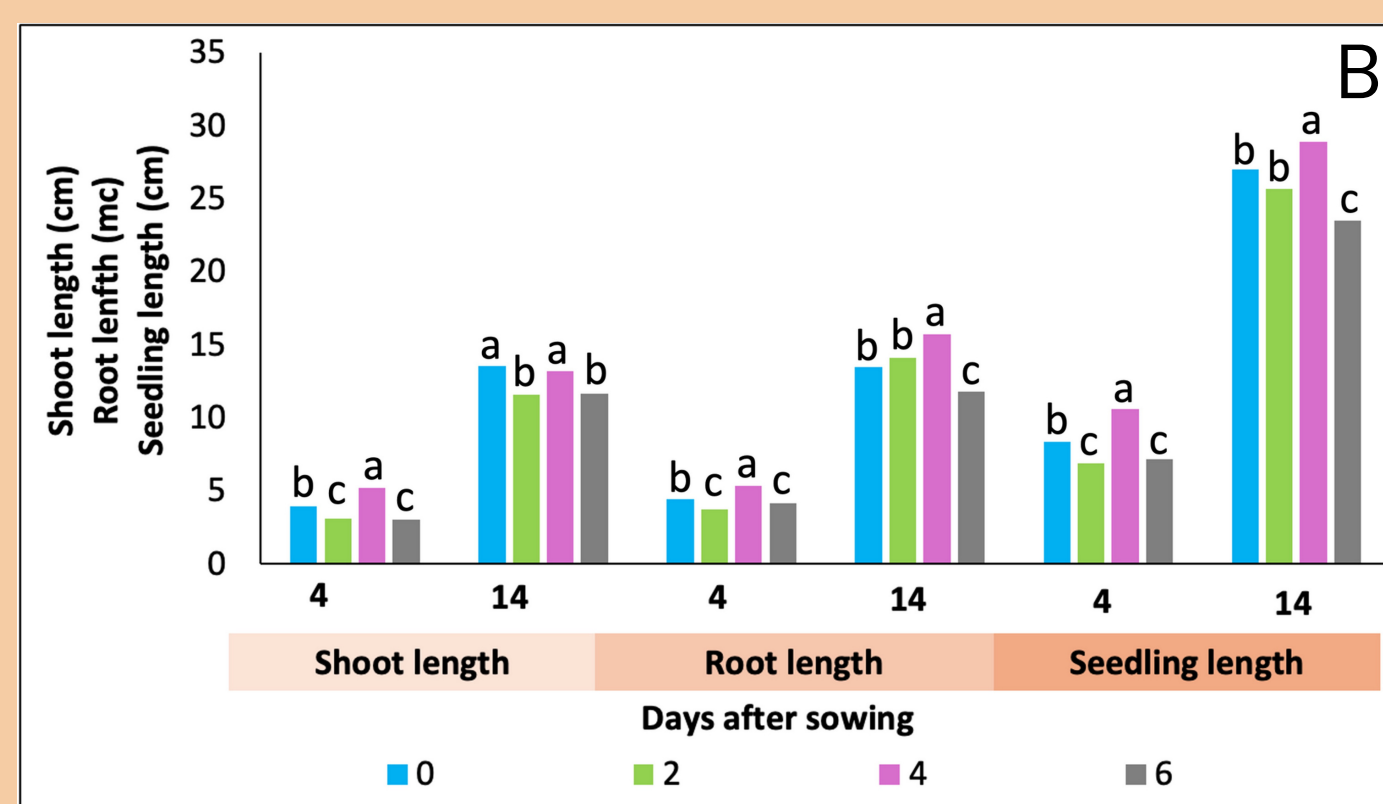
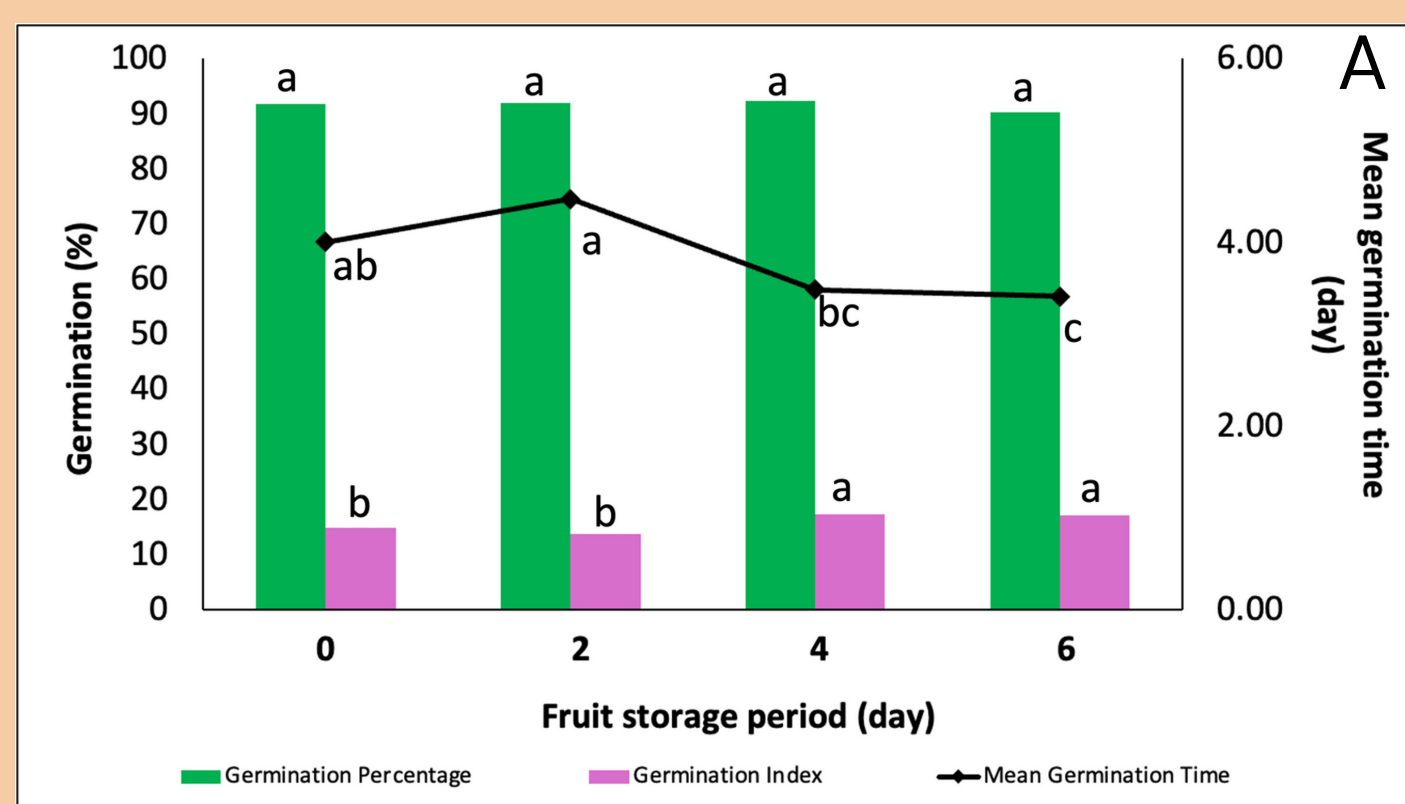


Figure 1. Germination percentage and index and mean germination time (A), shoot, root and seedling lengths (B), root count per seedling (C), chlorophyll content (D), and seedling vigor index (E) of bitter gourd before and after fruit storage. Different letters in a graph indicate the significant differences among fruit storage periods at 5% level using the LSD test using the STAR statistical tool developed by IRRI.

Benefits of fruit storage

4 days Fruit storage

Ambient conditions
temperature: 28 ± 2 °C
relative humidity: 65 ± 5 %



- comparable germination percentage with the others
- higher germination index

longer shoots, roots, and seedlings

higher root count

vigorous seedlings of bitter gourd