

Standardisation Of Seed Processing Techniques In Oriental Pickling Melon (*Cucumis Melo Var. Conomon*)

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ABSTRACT

An investigation to standardise the best processing method in oriental pickling melon variety , “Mudicode” for optimum seed quality was undertaken at the Department of Olericulture, College of Horticulture, Vellanikkara. Seeds extracted in machine with out keeping the pulp for fermentation, followed by drying under shade for one day and then in sun, avoiding peak hours exhibited maximum germination percentage (89.3), speed of germination (24.14), vigour index-I and II(2.36).Extraction using alkali (1% NaOH) was not at all effective in producing quality seed.

Key words: Seed processing technique, oriental pickling melon , *Cucumis melo var.conomon*, Seed quality, machine extraction, vigour index

INTRODUCTION

Seed extraction from fleshy vegetables is cumbersome since seeds are embedded in the pithy placenta. In such cases, the common practice of extracting seeds is to manually scoop out the seed along with the placenta and to clean the seed by repeated washing in water. Quality of seed is influenced by the method of seed processing. Very little information is available on the seed extraction and drying of the fleshy fruited vegetables. An investigation was undertaken at the Department of Olericulture, College of Horticulture, Vellanikkara to standardise the seed extraction and drying methods in oriental pickling melon for optimum seed quality.

MATERIALS AND METHODS

Oriental pickling melon variety , “Mudicode” was used for the study. Seeds were extracted from fully matured fruits of uniform size by seven different methods.

- E₁ - Manual extraction , without keeping for fermentation
- E₂ - Manual extraction, with fermentation for 48 hrs.
- E₃ - Machine extraction without fermentation
- E₄ - Machine extraction with fermentation for 48 hrs.
- E₅ - Manual extraction with acid treatment (1 %HCl) for 30 minutes
- E₆ - Manual extraction with acid treatment (2 %HCl) for 30 minutes

E₇ - Manual extraction with 1% NaOH solution equal to the weight of pulp for one night.

The seeds obtained by each method were subjected to four different drying methods

- D₁ - Drying under shade
- D₂ - Drying in direct sunlight
- D₃ - Drying using hot air , in a mechanical seed drier
- D₄ - Initial drying in shade for one day and then in sun, avoiding peak hours(12 noon to 3 pm.)

Total number of treatments- 28

Number of replications-2

The processed seeds were stored under A/C and quality parameters like germination percentage, speed of germination and vigour index-I and II were tested at monthly intervals for one year.

The mean number of normal seedlings produced was recorded on 10th day and expressed as germination percentage. Vigour index-I was computed by adopting the formula suggested by Abdul-Baki & Anderson(1970).

Vigour index-I= germination percentage ´ mean length of root and shoot in cm.

Vigour index-II= germination percentage ´ Dry weight of seedling

Speed of germination was calculated using the formula suggested by Agrawal(1995),

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