

B-57: Study of dehydration tolerance level in sour orange and heen naran

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Seed germination and seed moisture tests were carried out to detect storage behaviour and the "Dehydration tolerance level" of sour orange (*Citrus aurantium*) and heen naran (*Citrus reticulata*). Seed drying was carried out using a seed/silica gel ratio of 1 : 0.5 (w/w) basis. Germination percentages were calculated at each seed moisture content.

The results revealed that Heen naran seeds expressed a significant reduction in germination when seed moisture content was reduced below 40%. However, in the case of Sour orange seeds, no significant reduction in germination was observed when seed moisture contents were reduced to around 7%.

Sour orange (*Citrus aurantium*) seeds showed orthodox seed behaviour. Their longevity may be increased by lowering the seed moisture content. Therefore seeds of sour orange can be dried without causing damage to the embryo and conventional storage methods can be applied.

The seeds of heen naran (*Citrus reticulata*) showed recalcitrant seed behaviour. These seeds cannot be dried without damage to the seeds. Therefore it is not possible to increase their longevity by lowering the seed moisture content. An alternative method for storage of these seeds need to be explored.