

**B-17: Effect of storage temperature on germination of betel seeds  
(*Piper betel* L)**

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Betel (*Piper betel* L) is a popular cash crop among the peasant farmers in Sri Lanka, and it is cultivated for leaves. It acts as a masticatory, oral deodorant and gentle stimulant. It blackens the teeth and the spit is red. It is chewed after meals to sweeten the breath and is used at all ceremonial gatherings. At present this crop has a considerable export value. Although betel vine was under cultivation in Sri Lanka for many decades, not much research work has been done on its improvement. Recent identification of monoecious type of Betel and identification of the occurrence of Betel seeds has cleared the way for future development activities on Betel. Predominantly, Betel vine is propagated through vegetative means, but a propagation programme by seeds plays a vital role in any varietal improvement programme. An experiment was conducted to

... .. and viability loss of Betel seeds

Seeds were extracted from ripened spikes immediately after harvest and thoroughly washed and air-dried for one day. The bulk of the seeds were divided into 2 batches and the first batch was stored in a refrigerator at temperature level 8-10°C. The second batch of seeds were wrapped with paper and kept in an open glass container exposed to room temperature. Samples with 30 seeds were taken out from the above 2 batches, in different time intervals. Seed samples were treated with 25% Sulphuric acid for 2h and were placed on polybags with coir dust filler. Three replicates were maintained in order to minimize the irregularities. Counting of germinated seeds was performed 15 days after planting for each test. Observations were carried out until total loss of viability for each storage condition.

Betel seeds stored at room temperature lost their viability rapidly compared to the seeds stored in a refrigerator. Complete loss of germination at room temperature and in a refrigerator were observed at 21 and 50 days after the seed extraction respectively.