

B-38 : STUDY ON DEHYDRATION TOLERANCE

LEVEL OF *Citrus species*

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Citrus is the second major fruit crop in the world and most of its seeds have problems in storage. The storage behaviour and the "Dehydration Tolerance Levels" of citrus species of "Lime" (*C. aurantifolia*), "Jamanaran" - (*C. reticulata*), "Jambola" (*C. grandis*), "Grape fruit" (*C. pradisii*), "Heen naran" (*C. reticulata*) and "Sour orange" (*C. aurantium*) were studied.

Seed lots were kept in the drying room at 16°C and 25% - 30% RH and samples were drawn at 24 h intervals for the determination of seed moisture and germination. "Lime" and "Jambola" did not show a significant reduction in germination, when moisture content decreased even down to 3 - 4% and 8 - 9%, respectively. However "Jamanaran" and "Grape fruit" showed a significant reduction in germination when moisture content reduced approximately to 40%. "Sour orange" and "Heen naran" showed a significant reduction of their germination when moisture content reduced to approximately 12% and 15%, respectively.

Therefore, the viability of "Lime" and "Jambola" seeds under low moisture content indicate their orthodox seed behaviour. The loss of viability of "Jamanaran" and "Grape fruit" in the same environment indicate their recalcitrant seed behaviour. "Sour orange" and "Heen naran" seeds would maintain their viability for a long period

if the slow drying method was used. Thereby they might be stored in conventional storage.