

Abstract

The main objective of this study was to determine the effect of different temperatures and moisture contents on *Cordia sinesis* seeds viability on storage. Seeds of *Cordia sinensis* (L) were stored in hermitically corked glass viols for up to 150 days at different constant temperature ranging 60C to 350 C and moisture contents ranging 6% to 18% (fresh weight basis). Seed with different moisture contents were retrieved at intervals of 30 days from different storage temperature regimes for viability for a period of 150 days. Viability and storage period (longevity) decline during storage was generally lower at lower temperatures and moisture contents but rapid at higher temperatures and moisture contents. The effect of storage conditions on viability was also quantified using seedlings requirements equation. The estimated periods for viability to fall to 50% (P50 half-life value) decreased with the increase in seed moisture contents and storage temperatures. The viability results obtained could be used to predict the longevity and expected number of seedlings at different times. The results obtained in the present study could be applied in predicting viability loss and number of seedlings especially under short to medium-term storage conditions.