



# Best Management Practices Seed Drying



## Quickstart Guide

### ● Purpose

The Hawai'i Seed Bank Partnership (HSBP) presents this best practices document aiming to summarize the seed drying literature and to serve as a seed-drying 'how-to' reference for seed bank managers in Hawai'i.

### ● HSBP Drying Recommendations

- For long-term storage (10+ years), we recommend drying at ~20% RH at ~20°C to ensure optimal conditions for storage at both 5°C and -18°C (i.e., dry to the RH you want to achieve in storage).
- Practitioners should feel comfortable achieving RH targets  $\pm 3\%$  while drying seeds. This unified approach simplifies protocols, improves seed longevity, and mitigates risks posed by under-drying.
- Drying seeds at temperatures less than the storage temperatures (5°C and -18°C) is not cost-effective and therefore, is strongly discouraged.

## Protocol

Disclaimer: The assumptions and protocols presented here are simplified best management practices for storing seeds of the Hawaiian Flora. This protocol should not be used for fern spores or for seeds that are desiccation-sensitive or are extremely short-lived. Each seed is unique, and species-specific protocols that differ from the ones below may be determined to improve longevity for certain taxa in storage. If the facilities, equipment, and supplies to follow this protocol are not available, or the if short- to mid-term storage of >10 years is the goal, the previously recommended ~30-40% RH at room temperature (20°C) for cold storage is an acceptable protocol.

## HSBP Guides

- [Seed Drying \(Powerpoint\)](#)
- [Best Management Practices—Seed Drying \(Full text\)](#)

## Additional Information

- [Relative humidity using salts](#)
- [Silica gel drying](#)
- [Determination and control of seed moisture](#)
- [Module VI Drying Seeds in CPC's Applied Conservation Course](#)
- [Low-cost monitors of seed moisture status](#)
- [Equilibrating seeds to specific moisture levels](#)