

Samenwerk Seeds, Biodiversity and Seed Databases

A transdisciplinary study with papers and tools

How long does seed stay viable? Who owns a variety? Which databases exist, and what can a community conserve itself? The package answers these questions with referenced papers and with tools that compute in the browser.

18

papers, German and English

13

browser tools

19

data layers with evidence status

What is included

- papers on seed longevity, law, databases, conservation genetics, genetic engineering and new genomic techniques, market concentration and species loss, as Markdown and typeset PDF
- a clearly marked position paper by the author with opposing views, plus glossary and legal register
- tools without an account and without a network connection: longevity calculator, seed-law check, risk register, conservation planner, collection management and more
- working templates: accession form, storage log, return form
- concepts for a seed library, a conservation network and a teaching module, and a book concept

Who it is for

- seed libraries and conservation networks
- schools, adult education, garden clubs
- horticulture and farming
- administration, advice and law

How it was made

Every statement carries a source or is marked as unverified. Papers P12 to P18 were cross-checked in two separate passes; the package check comprises 3,263 individual checks with no findings. A review by subject experts is still pending; open items are listed individually in the handover file.

Conservation pathways by seed behaviour

Every collection needs a main pathway and an independent backup pathway

	orthodox	intermediate	recalcitrant	clonal or seedless
Seed bank	Main pathway	limited	not suitable	not suitable
Field genebank	limited	Main pathway	Main pathway	Main pathway
In vitro culture	not suitable	limited	suitable	Main pathway
Cryopreservation	limited	suitable	suitable	Main pathway
In situ and on farm	suitable	suitable	Main pathway	suitable
Botanic garden and arboretum	limited	suitable	suitable	suitable

About 8 per cent of plant species produce recalcitrant seed; among critically endangered species 36 per cent.

Source: Wyse, Dickie and Willis 2018; Panis et al. 2020; CGIAR. Suitability levels are comparative ratings. Data layer erhaltungswegs.json.

SAMEN-PROV0001

Suitability of six conservation routes by seed behaviour (figure 9 of the package)

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The tools compute in the browser only; inputs are neither transmitted nor stored. Results provide orientation and do not replace a germination test or legal or expert advice.