Uniting Native Seed Users

A bottom-up approach to seed quality and certification:

A survey of the native seed community

Holly Abbandonato
PhD Candidate
Socio-ecological approach to develop certification for native seeds
Historical certification and its influence on the seed trade today

Fraudulent Federal Seed Act 1939

Truth in Labeling
- Ensure quality through labeling

National seed policy should reflect the economic, political and technological factors of a country, but it can also be seen as a response to deficiencies in information (Louwaars 2002)
Seed legislation is complemented by strong research, certification and extension programs

- Mixture of regulations and regulators

Unregulated native seeds = risk negative externalities
The **benefits** of investing in ecosystem restoration

**35:1** investment returns in grasslands and woodlands

*Conservation Biology*

**Contributed Paper**

**Benefits of Investing in Ecosystem Restoration**

RUDOLF S. DE GROOT,* JAMES BLIGNAUT,† SANDER VAN DER PLOEG,* JAMES ARONSON,‡,§
THOMAS ELMQVIST,∗ ‡ AND JOSHUA FARLEY ‡
Current **certification** model: food and plants are commodities

- **Product**
  - Distinctness

- **Standardized**
  - Uniformity
  - Stability
What about the native seed industry?

Product

Standardized

Preserve genetic diversity
New niche for diverse product model!

Industry
Sustainable
Innovative
Dynamic

Research
Unexplored
Applied
Funding collaborations

Public
Tourism
Pollinators
Climate Change
Introduction
Participant Information

Native Seed Quality Requirements
Native Seed Certification

Native Seed Market
Seed Zones
Production Standards

Outreach and Collaboration

About Us

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Brechin, UK
Native seed quality is not well-defined in the literature

1. Species and end use (Hampton 2002)

2. Genotype and pre-storage environment (Baskin & Baskin 2014)

3. Seed quality (purity) and seed quantity (TSW) (Haslgrüber 2013)
Survey of native seed users and stakeholders

n = 262
5 languages (EN, FR, IT, ES, DE)
List of stakeholders
Contacting native seed groups
Researchers
n= 105

Production
n= 47

Applied Restor.
n= 60

Seed quality importance

- Yes, always
- In most cases
- In few cases
- Never
- Don't know

No. of participants
How to measure native seed quality?

- **Res.** - Researcher
- **Prod.** - Production
- **AP** - Applied Practitioner

Seed quality measures:
- Origin
- Provenance
- Viability
- Germination
- Purity

Graph showing the distribution of participants across various seed quality measures.
How to measure native seed quality?

First Choice:

1. Researchers
2. Producers
3. Applied Practitioners

<table>
<thead>
<tr>
<th>Seed Quality Measure</th>
<th>No. of Participants</th>
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<tbody>
<tr>
<td>origin</td>
<td>200</td>
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<tr>
<td>provenance</td>
<td>120</td>
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<tr>
<td>viability</td>
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<tr>
<td>germination</td>
<td>120</td>
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<td>purity</td>
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Foundational certification standards for native seeds

Survey Results

Review of current schemes
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ISTA
“Conservation is a state of harmony between men and land.”

-Aldo Leopold
A Sand County Almanac

Uniting Native Seed Users

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