

## Seed Bank Gathering Appendix

This appendix summarizes each breakout session topic from the 2026 Seed Bank Gathering. Facilitators from each breakout group identified the three main takeaways from their sessions, and responses from all eight breakout sessions are presented below. These findings were later synthesized into the BC Seed Bank Report.

### Breakout Session 1: Priority Species

**Q1: What criteria should we use for prioritizing species for the seed bank? (rare/species at risk/by region/local extinction risk/species used for reclamation/ culturally significant species)**

**Q2: Who do we need to talk to?**

### Criteria for Species List

1. Ecosystem Approach
  - Prioritize Threatened Ecosystems, plant communities, and key biodiversity areas (e.g. Garry Oak)
  - Priorities for restoration species: focus on plants that support wildlife, pollinators, and people
  - Priorities for restoration species: focus on plants that can withstand drought and future climate change
  - Consider other aspects
    - E.g. Parasites that feed on host on plants
2. Regional Species List
  - Species lists need to be regionally specific
  - Each region will have different needs
    - Some regions have concern for rare, other regions will have a need for reclamation
3. Vulnerable Species
  - Northernmost species
    - Most likely impacted by climate change
  - Prioritize environments and communities of plants especially those that are impacted by catastrophic events (e.g. fires, flooding) and human disturbance
4. Intersection
  - Prioritize species that are rare and habitat generalists
  - Prioritize species at the intersection of rare and culturally significant species
  - Prioritize species that overlap between rare/cultural/restoration
5. Other
  - Start with easy to germinate and easy to propagate

## **Considerations:**

### 1. Ecology and Biology of Seed

- Seeds will do best to be planted where they are harvested from
- What is the utilization of the seeds? Are they going back into native environment? Or grown into nurseries and planted out?
- Germination requirements and existing knowledge of seed storage is important
  - What is the soil the plants will be planted in?
  - What are the other plants in the community?
  - Think about the role of invasive species and how propagation of seeds later on will succeed based on invasives
  - Need to consider the biology of the species. Not every species can be seed banked

### 2. Future Seed Use

- Attention is needed to not deplete seed sources
- There are two ways to look at collection methods:
  - Collecting diverse seed lines to maintain genetic diversity
  - Collecting fast establishing species for restoration

### 3. Indigenous Knowledge

- Species need to be determined by the Indigenous groups of the region
- Account for diversity of knowledge and perspectives in BC - local First Nations, botanists, and private industry

## Breakout Session 2: Data Sovereignty

**Q1: What data sovereignty opportunities and concerns should the BC Seed Bank be mindful of?**

**Q2: What kind of data may be sensitive?**

**Q3: What sensitivities are there related to storage location and use?**

- **ex: where the seed is stored/how it is used/who gets access to the seed and or information**

### **Concerns**

1. Over-harvesting
2. Protecting the location and use of cultural and medicinal plants
  - There should be no write ups coming out about culturally significant plants
  - There should not be hordes of people coming into First Nation's territory to collect plants
  - Knowledge of medicinal plants should not be used outside communities
  - Location data is very sensitive to protect living specimens and cultural areas
  - Researchers coming into communities and taking without bringing information back to the communities
3. People profiting off the information without sharing knowledge
4. Competing interests in profit and nonprofit settings on data

### **Prescriptions**

1. Consulting and Relationship building with First Nations
  - The Seed Bank Network needs to build relationships and trust with First Nations and being okay with being told "no" when asking to collect the seed
  - See what work is already being done on data sovereignty within the nations
  - Following protocols of First Nations while on their land and ensuring there is appropriate levels of knowledge and access sharing
  - Being aware that each nation has their own protocol associated with plant collecting
  - Families have hereditary plots for some species. We need recognition from a rights holder perspective to acknowledge that plant populations have hereditary rights, regardless of current "ownership" (e.g., Indigenous traditional family harvest areas)
2. Location
  - While it's understandable people don't want the exact location known, there is value in knowing the BEC variant identified for the seed. However, BEC is dynamic and keeps changing so it is better to find other ways to get an approximate location.
    - Example: National Tree Seed Centre asks for location and provenance data to be shared but they remove 3 decimals from the latitude and longitude.
  - Collection location radius can be used for data protection
3. Custom Agreements and Policies
  - Create custom agreements with users

- e.g. National Tree Seed Centre has a different MOU which varies in terms of what communities want or don't want to share
- Agreements need to be entered into at the beginning
- There should be a statement in the agreement that says the seed won't be used for commercial or financial gain
- 4. Information sharing:
  - There needs to be transparency of what happens to the seed and the information
  - Redact information when they can't be shared publicly
  - Balance between sharing data and keeping confidential information secure (personal details, exact collection locations, etc.)
  - Personal information vs seed required information for seed inventory management
- 5. Seed Collections
  - Should have clear and respectful protocols for collection and handling
  - Create protocols and policies to ensure there is no overcollection
  - Test propagation of seeds to see how they might take hold in the distant future (e.g. 50 years)
- 6. Education is a big part of this work
- 7. Core values can help guide data sovereignty
- 8. Questions that arose:
  - How does seed ownership work?
    - may be case to case – some only used by owner, some used by public
  - What is the purpose of the Seed Bank for culturally significant plants?

**Q2: Who should we be talking to?**

- Need to work with people who are already developing priority lists (e.g. Wilder at Calgary Zoo)

## Break out session 3: Growing Forward

- **Q1: What do you see as the long-term vision for the BC Seed Bank? (In 2030, picture the Seed Bank being wildly successful... )**
- **Q2: How might we secure long-term funding for the BC Seed Bank?**

### ***Opportunities:***

#### 1. Education/Outreach

- BC Seed Bank could be an important resource for education/outreach
  - to promote responsible planting and not over-harvesting
  - to promote the use of native plants
  - to provide resources for community members
  - to provide education for other similar organization to learn/teach
  - importance of community involvement and communications
- Develop a website or database to store information so everyone can access
- Provide training and capacity to ensure collecting is done well
- Education, public engagement, and marketing as key for bringing in public support and raising funding

#### 2. Community Building and Collaborations

- A big challenge that exists is the nationwide lack of coordination of plant nurseries and seed banks
- Grow collaborations and networks to share resources and support each other
- Create a seed cooperative to support nations and guardians
  - Trade knowledge, materials, caretaking, transplanting
- Lean on similar projects to share knowledge and prevent effort duplication

- Work together to solve problems

### 3. Multiple Hubs

- Having multiple hubs supports First Nations because they are easier to access and seed can be delivered in person to ensure good storage.
  - Provide long term storage and somewhere that can be routinely accessed for different purposes

#### **Considerations:**

- The seed bank will support increased diversity in plantings including increased planting of rare species.
- Make sure the seeds have correct species ID, require a voucher specimen
- How will these systems – food forests – be more resilient? What if we can't rely on agriculture from the US? How to enhance those plants and take back responsibility for care taking
- Model that could work for the Seed Bank - similar to the BC Invasives Species Council where there are hubs all around BC.

#### **Provenance**

- Seeds will do better planted in the soil from which they came
- If the Seed Bank becomes the number 1 place that people are going to when they are doing restoration, people are still going to go to commercial nurseries - which don't know where seeds came from or are from one maternal bank.
- If you are collecting native seed, how do you determine how far from its provenance do you plant it?
- There are provenance tests for tree species. It's an advanced system at a global scale, but it requires a lot of information to put in

#### **Concerns**

##### 1. Defining goals

- are the seeds going to be shared? Would it just be for smaller organizations and communities?
- Are the seeds just going to be stored? Or will they be shared for restoration etc.?

##### 2. Government control

- "We need to be careful of too much government funding/control - First Nations are especially concerned with over commodification, genomes sequenced/owned."

## ***Financing***

- Mining industry/ gas and oil companies should pay for restoration and invest in this work
- Governments should be funding this work – federal or provincial
- Long term funding is necessary to make it successful long term
- Looking into varying sources of funding to for-profits wanting who have climate initiatives and other avenues of funding.
- Leveraging growing network and public presence for federal funding
- Public-private partnerships to raise support from government and donors
- Revenue-generating services from Seed Bank to sustain operations - private storage, cleaning, viability testing
- Education, public engagement, and marketing as key for bringing in public support and raising funding
- Maybe there are small pots of funds that municipalities that could contribute to supporting a part time staffer work with seeds in their area
- Nupqu may be able to access BC Fish and Wildlife Compensation Program (BC Hydro).
- Prioritizing restoration species for funding and raising support