

Bourreria cassinifolia

Pineland strongbark

SEED COLLECTING

- **When to collect**—Ripe fruit is a 1 cm. orange berry containing up to 4 seeds (Figure 1). Fruit is available year-round on cultivated specimens or on regrowth after fire in natural areas.
- **How to collect**—Collect ripe fruit by hand. Fruits collected from the ground beneath the plant are difficult to clean and seem to enter a deep dormancy.
- **How to clean seed**—Clean seeds immediately. Begin by squishing fruits in a mesh sieve strainer to separate seeds from one another. Add the contents to a cup of water. Apply 10 drops pectinase viticulture enzyme and stir. Allow the contents to soak 1-3 days. Enzymatic action is faster in warmer weather. After soaking, apply the mix back to the mesh sieve strainer. Grind the mixture against the mesh to help separate the skin of the fruits from the seeds. The contents then go back to the cup for a series of rinses. Fill the cup with water, wait a couple of seconds for the seeds to sink to the bottom of the coffee cup, pour off the water. Anything “non-seed” should pour off with the water. Repeat until you’re left with only the seeds. Dry off the seeds and place them in an organza bag to dry overnight on/near a fan. After drying, if any skin remains on the seeds rub the dry seeds against one another vigorously several times. Use a seed blower to blow the remnants away from the seeds. Seeds should be free of pulp when finished (Figure 2).

PROPAGATION BY SEED

- **Pre-treatment** – One germination trial at Fairchild using different pre-treatments has shown that sowing seeds in native soil and leaving the pots outside for one month (exposed to cycles of wet and dry conditions) increased germination to 39% compared to 8% without any pre-treatment. However, due to small sample size and no replication (seeds were all in one pot), this experiment should be repeated to be sure that this effort reliable leads to higher germination.
- **Sowing methods**—Thoroughly dried seeds may be sown year-round in community pots. Incorporating native soil in the mix may result in more robust seedlings compared to potting media or crushed limestone alone.
- **Expected time to germinate** - 2-3 weeks to first germination, 4-5 weeks to maximum germination (however, single seeds can still germinate up to 2 months after sowing)
- **Expected germination rate (%)**- With pre-treatment mentioned above 39% germination, otherwise 5-20% germination (Figure 3).
- **Path to finished product**- Grow plants in full sun. Transplant seedlings from community pots to 3” pots once they’re approximately 2 cm. in height (Figure 4). Note: Seedlings that germinate under mature parent trees transplant reasonably well if moved at this size. Expect 80-85% survivorship rate. Apply 2/3 teaspoon Florikan CRF 18-6-8 at time of planting. Reduce water to “as needed” until plants are actively growing. Plants may be moved to daily water regime once well rooted. Once they reach approximately 20 cm., transplant to 1-gallon pots. 3” plants should be planted “straight” in 1-gallon pots as they often lean to one side at the end of 3” stage. Apply 1 tablespoon Florikan 18-6-8 at this stage. Finished product is in 1-gallon pots. Plants are multi-

branched, approx. 40-50 cm in height and width, support deep green foliage, and are often reproductive.

- **Time to finished product -**
- **Expected quantity at end (% of seeds sown) -**

PROPAGATION BY CUTTINGS

- **Is species capable of propagation by cuttings?** Unknown. The species has not been trialed for reproduction by cuttings. Further research is needed.
- **Best type of material to collect** – N/A
- **Best methods** – N/A
- **Expected success rate using best method** –N/A
- **Time to finished product** – N/A

COMMENTS

This species is cold sensitive. Temperatures below 50 F (10 C), depending on duration, lead to (marginal) leaf burn, complete defoliation, or death in severe or sustained cold. Plants generally recover with warmer temperatures.

Strongbark suffers from iron chlorosis under prolonged production times with well water usage. Use chelated iron as needed to correct nutritional deficiencies.

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Figure 1. Pineland strong bark ripe berry, flowers and foliage (JP).



Figure 2. Cleaned seeds of pineland strongbark (JP).



Figure 3. Newly germinated pineland strongbark seedlings (BH).



Figure 4. A wild pineland strongbark seedling (LC).