**State of California**

**The Resources Agency**

**Memorandum**

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| **To:**         | California Board of Forestry and Fire Protection   | **Date:** June 1, 2023**Telephone:** **530-379-5085****Website:** www.fire.ca.gov |

**From**: Stewart McMorrow, Staff Chief Wildfire Resilience

Lewis A. Moran Reforestation Center

Resource Management

**California Department of Forestry and Fire Protection (CAL FIRE)**

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| **Subject:**  | Proposed seed rates adjustments for inflationary increases. |

The Lewis A. Moran Reforestation Center (LAMRC) located in Davis is the only state-run seed back in California. The center falls under CAL FIRE’s Reforestation Services Program (RSP). The seed bank is a long-term seed repository stored in sub-zero freezer banks containing over 40,000 pounds of conifer seed. The Seed Bank provides a wide variety of native tree species from a range of areas and elevations throughout the state for a series of projects such as post-fire reforestation. This assists in restoring native lands exposed to shifting climates and rising uncertainties in the forest ecosystem. The Seed Bank acts as protection against the threat of state-wide extinction, striving to preserve species for current and future generations of Californians. It is a vital part of reforestation’s future.

As wildfires continue to devastate California’s landscape the demand for seed is increasing, however, the cost of this valuable resource has not been revised since 2014. There is minimal institutional knowledge behind the original establishment of the current price structure. However, inflationary pressures due to the recent pandemic as well as a review of private business seed rates has prompted the RSP to evaluate the need for an increase in seed rates to adjust for inflation. These changes will reposition our pricing structure so as to not be competitive with private sector seed sale companies.

The following information describes our procedure for setting a new pricing structure for seed sales and seed processing. A new pricing schedule is included for review of all potential pricing.

**Proposed Pricing Structure**

***Comparable Seed Bank Facilities***

Since LAMRC is the only state-run seed bank in California, direct metric comparison with other state facilities is unachievable. The Oregon Seed Bank is another state-run seed bank that provides seed and services at a rate comparable to LAMRC. The Oregon Seed Bank currently sells seed at an average rate of $414.29 per pound, while the LAMRC currently sells seed at an average rate of $269.11 per pound. Most private seed banks primarily have a retail focus, but occasionally provide seeds for reforestation purposes. Silvaseed, one of the largest private seed banks, currently sells their seed at an average of $296.58 per pound.

***Proposed pricing structure.***

According to the U.S. Bureau of Labor Statistics inflation rate, $1.00 of buying power in January 2014 is equal to $1.28 of buying power in January 2023. Considering past LAMRC pricing as well as the prices set by other government run seed banks, and the infinite unknowns related to future seed requests and challenges, we propose the following pricing structure for L.A. Moran Reforestation Center seeds, to go into effect for fiscal year 2023.

* All seed prices and services will be increased by 28% to match the rate of inflation with average seed prices increasing from $269.11 per pound to $339.11 per pound.
* Seeds will no longer be sold in price increments of 0.1 pound and 0.5 pound with special pricing for those smaller increments.
* Seeds will only be sold based on the price increment of 1.0 pound. This will be done to reduce overcomplexity. Any requested amount of seed will be multiplied by the price increment of 1.0 pound to determine the total cost.

Example:

If 1 lb. of Coast Redwood = $832.00 and a customer asks for 0.25 lbs. The cost for 0.25 lbs. of Coast Redwood seed would be 0.25 x $832.00 = $208.

Similar if a customer is asking for 2.05 lbs. of Coast Redwood the cost would be 2.05 lbs. x $832.00 = $1,705.6

***Adjustment for CAST***

The [Climate Adapted Seed Tool (CAST)](https://reforestationtools.org/climate-adapted-seed-tool/#:~:text=The%20Climate%2DAdapted%20Seed%20Tool,features%20are%20limited%20to%20California.) is a seed transfer climate adaptation tool developed by CAL FIRE in collaboration with the USFS and UC Davis. The tool uses provenance test sites to estimate the percent decline in productivity as one of the main metrics to assess which alternative seed sources are pre-adapted to the climates of planting sites. Percent decline in productivity is the percent decline in tree volume or biomass that managers should expect due to using a seed source that is not well adapted to the climate the trees will grow in.

Due to the predictive nature of this tool, there is a risk to the customer if alternative seed sources are used based on CAST recommendations. Should the customer accept these alternative seeds, a 20% discount will be given to the customer.

***Price change tables***

Below are the price change tables with our current pricing on the left and the proposed prices highlighted in yellow on the right.

