

NURSERIES 0353

GENERAL 0353.1

Pursuant to its responsibility to determine, establish, and maintain adequate forest policies, the Board of Forestry and Fire Protection (Board) finds that:

1. An adequate, reliable, and continuous supply of forest tree seed, tree seedlings, non-tree species, and other associated plant materials must be assured if the forest values of declared public interest are to be maintained.
2. State laws, regulations, policies, and goals, as demonstrated in the Forest Practice Act, other related sections of the Public Resources Code, the California Forest Improvement Program, Environmental Quality Incentives Program, the Board's Strategic Fire Plan, the Climate Action Plan, the Forest Carbon Plan, and the public demand for vegetative material of various types to ensure forest resiliency, promote restoration, protect soil and water quality, provide wildlife habitat, mitigate climate change, enhance and improve urban settings, and enhance other forest values foster a substantial demand for seedlings of widely varying type, species and seed sources. The State Nursery Program is uniquely positioned to collect, process, and store the highest quality available seed across all seed zones to meet this demand.
3. California has highly varied topography, geology and climate. Historically, more than 80 separate zones of unique ecological characteristics have been identified and delineated. However, shifting climatic conditions have likely precipitated changes to those established seed zones. Although the effect is not yet fully described, it should be understood that the utilization of current seed zones will require discretion. Though most of the annual statewide seedling production is focused on a limited number of zones, there exists a demand for seedlings throughout all zones, for plantings of non-commercial native species, and for climate adaptation needs. Without an appropriate seed source, seedlings from zones of different climatic adaptation are often planted, resulting in sub-optimal conditions. Seedlings or saplings well adapted and suited for plantings other than for commercial forest production also may not be available from commercial nurseries. The State must provide for production of many diverse lots of seedlings covering these zones. Even though the seedling production costs are comparatively high for small lots, it is in the State's interest to avoid planting offsite seedlings that are not adapted or suited to a given site.
4. Site specific, genetically diverse, and viable seed is an essential link in the continued supply of tree seedlings. Such seed has not always been available. Good seed crops are the exception and occur intermittently. While adequate seed crops are often borne every five to seven years, some important tree species and seed zones have not had collectable seed crops for up to 20 years. Although some seed is produced every year, not all species and seed zones produce collectable seed on the same cycle. In view of such periodicity and variability of seed crops, the State must maintain a highly reliable and sizable seed bank, along with an appropriate processing and testing facility. The seed bank will insure a continuing supply of seed for all appropriate species and zones during the years between collectable crops. California forests experience severe damage and mortality as a result of frequent wildfire, drought, floods, climatic change, insect and disease outbreaks, and other natural causes. When such events occur, the demand for seedlings of specific species and seed zones can increase dramatically for several years. The seed bank will, in addition to meeting the above periodicity and genetic reserve concerns, also insure a seed supply to meet unexpected needs of catastrophic events or unforeseen opportunities.

5. The production and utilization of seedlings involves substantial uncertainties for the producer, the consumer, and the public. Nursery stock may take more than one year to grow to the optimum size and cannot be held past this optimum age. Consumers cannot always predict their need, but still must have adequate stock or access to private nurseries that produce stock on a timely basis in order to take advantage of economic and climatic opportunities. Finally, if plantings are unsuccessful, long-term timber production and wildland revegetation needs cannot be met.
6. The Board encourages public and private collaboration on the study and evaluation of alternatives to the use of potentially harmful fungicides, pesticides, and fertilizers, and the application of those alternatives in nursery seedling production. Such evaluation should include a cost analysis relative to the effectiveness of such alternatives. The California Department of Forestry and Fire Protection (CAL FIRE) should provide for rapid technology transfer as any alternatives become available.
7. Under Public Resources Code Sections 4681-4695, CAL FIRE has the responsibility for maintaining a nursery system; collecting, processing and storing seed; for protecting the genetic integrity and diversity of forest trees and plants species, giving emphasis to native species threatened with extinction; and providing technical and reforestation assistance to landowners. The Board recognizes that private nurseries produce seedlings for a wide range of clients and that its state nursery system seeks to cooperate and coordinate with these producers to help ensure reliable, affordable seedling.
8. Increased needs for reforestation efforts are present due to elevated size and intensity of wildland fires, drought mortality and previously understocked forestlands. To meet these needs, CAL FIRE should continue to partner with other public agencies including, but not limited to, the National Resource Conservation Service, U.S. Forest Service, Resource Conservation Districts, and the University of California Cooperative Extension to create a reforestation network service to provide for and focus on:
 - Coordination in determining reforestation needs/demands;
 - Facilitation of seed collection;
 - Centralized seed processing and storage at CAL FIRE's L.A. Moran Reforestation Center in Davis;
 - Facilitation of network and contractual arrangements with private nurseries to grow small lots of seedlings;
 - Help with seedling specifications or growing;
 - Coordination with customers to contract grow seedlings through the nursery network;
 - Landowner financial assistance programs (cost share grants);
 - Technical advisory services; and
 - Reliable funding to support the reforestation services components.

(Section 0353.1 modified 11/7/2018)

In light of these findings, it is the policy of the Board that CAL FIRE shall maintain a State Nursery Program pursuant to Public Resources Code Sections 4681 through 4695, and that this program shall reflect the following policies:

PRODUCTION 0353.2

1. CAL FIRE shall maintain a seed bank as insurance against poor seed crop years, unexpected wildland fire, drought, floods, insect and disease events, climatic change, or other natural causes and to ensure the restoration and genetic diversity of native tree and plant species threatened with extinction. The seed bank will strive to contain a sufficient supply of viable seed, to meet the needs of forest landowners and CAL FIRE's Nursery Program and the capacity of the nursery program should be expanded to address projected future needs. Seed may be sold to private nurseries, and landowners unable to be supplied by private seed dealers. The factors to be considered when determining the quantity of seed to be stored shall include frequency of adequate and diverse seed crops, anticipated annual demand, availability of seed from other sources, potential for emergency reforestation needs, and seed storage capacity. The seed bank reserves will be sufficiently diverse to provide a depository for protecting genetic diversity of tree and plant species giving emphasis to native species threatened with extinction where practicable. Where feasible, CAL FIRE may acquire cones and seed from private persons, organizations, public agencies, tribal organizations, or other suppliers. It is important to ensure the continued availability of quality, source-identified seed for CAL FIRE and private landowners.
2. CAL FIRE shall maintain a facility for cone processing, seed extraction, seed testing and storage, capable of producing an adequate quantity of high quality seed on a timely basis. Processing and testing services may be made available to persons or organizations on a contract or percentage share basis when adequate facilities are not available elsewhere in the State.
3. CAL FIRE shall maintain a nursery system, that can produce or facilitate production at private nurseries, a broad spectrum of species and seedlings, both container and bare root, for the purposes of:
 - a. Public planting or reforestation of public lands, with emphasis on forestland damaged by fire, drought, flood, insects, disease, or other natural causes;
 - b. Restoration of native tree and plant species threatened with extinction;
 - c. Soil erosion control, watershed and riparian protection or restoration, or farm windbreaks;
 - d. The production of forest products on private, State, public, and tribal lands;
 - e. Demonstration urban tree plantings;
 - f. Climate change mitigation and adaptation; and
 - g. Supplying various State-funded projects.
4. CAL FIRE shall plan annual seedling production consistent with the premise that this production is a back-up to anticipated private output for high demand species. CAL FIRE shall continue to serve as the basic source for low demand species, for unique species or zones, and for those native species threatened with extinction. It is recognized that natural events, public pressure, legislative or governmental mandates or availability of new grants for plantings may cause unexpected shortfalls in production or rapid increases in seedling demands. CAL FIRE's plan will address the need to produce seedlings to mitigate these factors.

5. If CAL FIRE's production shall not interfere with private nurseries demonstrated capability and willingness to meet landowner needs for high quality, genetically suitable planting stock.
6. CAL FIRE shall prepare a report to the Board at ten-year intervals from the approval date of the Board's most recent nursery policy statement (11/7/2018). This report shall contain the Department's evaluation of the statewide public and private seed and seedling production. A recommendation of how the Department proposes to adjust its production in the light of current seedling markets and in response to the demonstrated capabilities of private nurseries will be included.

PRICING 0353.3

CAL FIRE shall determine appropriate pricing for all nursery products based upon market prices, but which are adjusted such that they do not disadvantage existing private nurseries or are overly burdensome to purchasers. Pursuant to PRC § 4684, CAL FIRE's pricing schedule is subject to Board consideration and approval, as are any adjustments or amendments that are made to that schedule.

The Board recognizes that if CAL FIRE produces or supports production of speculative stock it is often priced substantially above equivalent contract material in response to the risk and the uncertainty of sale and that such differential pricing must be considered in nursery policy.

(Section 0353.3 modified 11/7/2018)

MARKETING 0353.4

1. CAL FIRE may grow seedlings for private, public, or tribal entities on a contract basis.
2. General public sale of nursery stock should allow all buyers an equal opportunity to purchase. Individual sales may be limited so that one large order does not exhaust the existing supply. Contracts, reservations and delivery commitments may be made by the nursery sooner than general public availability for State and Federal projects, and planting and reforestation projects which require a planning span of greater than one year.
3. CAL FIRE may, for the purpose of distributing information on the availability of seedlings or for determining the numbers of seedlings or species needed to be grown, advertise or provide news releases to solicit sales or information. CAL FIRE also is encouraged to develop and utilize its Forestry Assistance, Forest Practice, Fire Prevention, Wildfire Resilience, and Urban Forestry Programs to disseminate information on seedling availability and to solicit information on anticipated seedling needs. After fires or other natural disasters, CAL FIRE should ensure that the affected landowners are made aware of the private, state, tribal, and federal nurseries as potential sources of seedlings for replanting their burned or otherwise deforested properties. This information should be incorporated in any Watershed Emergency Response Team report or fire recovery plan provided. Recovery team information gathered needs to be provided to the appropriate nursery on a timely basis to ensure seed can be ordered and stratified in time for sowing.

(Section 0353.4 modified 11/7/2018)

OTHER 0353.5

1. CAL FIRE shall utilize existing Programs for information collection and dissemination related to cone crop evaluations; projection of seed and seedling demands; sources, types, genetic diversity, and quantities of available seed and seedlings; reports of studies in forestry nursery practice and discussions of problems being experienced by both consumers and producers. Additionally, CAL FIRE shall investigate the opportunity for cooperative agreements with other governmental agencies with similar information disseminating responsibilities. CAL FIRE shall continue to provide technical information to seedling consumers, including the option of contracting with private growers, through its Forestry Assistant Specialist, Resource Management, and Wildfire Resilience Programs.
2. CAL FIRE shall promote and support regional and statewide programs in genetic tree improvement and identification of diverse and resilient species as a means of increasing the quality and quantity of available commercial timber in the future, to help sustain endangered species, and to promote the growing of other species with important environmental, economic, or social values.
3. CAL FIRE shall provide demonstration, study, and information transfer in the broad area of nursery practices and reforestation. These activities may include investigations of cone crop forecasting and periodicity, cone and seed maturity, new methods of cone processing, seed testing and storage, nursery cultural and seedlings handling practices, species adaptation to climate change, and reforestation techniques. Also, these activities may include the use of workshops, multimedia program development and organization and coordination of any technical nursery cooperatives.
4. In the event that CAL FIRE proposes to expand the nursery program, expansion proposals will be reviewed with the Board before implementation. Conversely, the Board should be advised of any plans for downsizing or closing of the program for their review and recommendations.
5. CAL FIRE is encouraged to collaborate with the USDA Forest Service, USDA Natural Resources Conservation Service, Resource Conservation Districts, Universities, and other public entities on a wide range of nursery and reforestation matters, including measures to address tree seed collection, seedling propagation, and adaptation to climate change.
6. The CAL FIRE is encouraged to use Conservation Camp Crews, when available, as a labor source for all appropriate phases of cone collection and processing, seedling production, and facilities maintenance.
7. Excess production capacity, if any, at nursery facilities may be utilized, at the discretion of the Director, by government agencies or nonprofit organizations for production of seedlings and other plant materials for purposes such as reforestation, restoration, carbon sequestration, or urban greening purposes. A written agreement shall be entered into for such uses and shall include provision for reimbursement of any CAL FIRE costs resulting thereby.
8. The CAL FIRE may enter into agreements with non-profit organizations and other government organizations, as well as private contractors, to facilitate and assist in all reforestation service needs. These include, but are not limited to: cone crop surveys, cone sampling, cone collection, contract seedling growing, and technical assistance for reforestation, including site preparation and planting.

9. The CAL FIRE is encouraged to promote the services of its nursery program to enrollees of the California Forest Improvement Program and the Environmental Quality Improvement Program and to work closely with the participants of those programs to accurately assess their seedling needs in order to make seedlings readily available for those projects.
10. The CAL FIRE will periodically update the California Forest Improvement Program practices and cost share rates, consistent with the policies and regulations of the Board, to facilitate the reforestation services outlined above.

(Section 0353.4 modified 11/7/2018)