

## Forest Stewardship Education Newsletter June 2025

### Reforestation

#### Greetings from UC ANR

UC Berkeley's Scott Stephens has been studying wildfire in California for a long time. The Stephen's Lab focuses on research, education and training to help better inform policy makers, land managers, future fire scientists and the public on wildland fire science, ecology, and resource management. A 2007 publication by Stephens et al in the journal Forest Ecology and Management looked at California's prehistoric fire regime and found that 4.4 to 11.9 million acres per year or 5% to 12% of California's lands burned annually pre-settlement.

One of the biggest differences in today's fire landscape from pre-settlement conditions is the intensity of today's fires, which are burning hotter. These high intensity fires are leaving many areas with little ability to regenerate forests, leading to vegetation type conversion away from forests to shrub fields.

From participant surveys, 97% of our Forest Stewardship participants identify wildfire as a top concern. Sixty-one percent state they are 'very interested or definitely interested' in reforestation activities in their forests. Whether reforestation interest is driven by wildfire impacts or other activities, there are best management practices to consider in order to give seedlings a strong chance of survival.

Thanks to my colleague Katie Reidy, Post-fire Forest Resilience Program Education Coordinator ([kkreidy@ucanr.edu](mailto:kkreidy@ucanr.edu)), for collaborating on this newsletter!

Cheers,  
Kim Ingram, Forest Stewardship Education Coordinator



The reforestation cycle. Image and content developed by CAL FIRE

**In high severity fire burns, where no live trees remain, it is often necessary to plant seedlings if a forest is to persist.**

## Post-Fire Landscapes: reforestation considerations

In post-fire landscapes, forest professionals often ask the question, "what was the change caused by the fire?" Which is referred to as, *Fire Severity*. Severity of fire is measured by the mortality of overstory trees, and may be indicated by low, moderate or high severity fire.

High severity fire has the greatest impact to the vegetation as nearly all conifers in the Sierra Nevada are adapted to low severity fire and high severity fire was historically limited to smaller patches (Agee 1993, Safford and Stevens, 2017).

Conifer forest regeneration relies on germination of new seeds from nearby seed trees. In high severity fire burns, where no live trees remain, it is often necessary to plant seedlings if a forest is to persist.

Understanding fire severity and whether there are nearby seed trees will help landowners determine immediate and longer-term management strategies in post-fire landscapes. In high severity landscapes, prioritizing removal of dead biomass through salvage logging, mastication, chipping, or burning, will reduce the fuels for future fire and prep the landscape for young trees.

For landowners in the Oak Woodlands or Redwoods, it is important to note that these species will resprout. They do not require seeds from

nearby trees, but management of resprouts should be considered. See the [UCANR Factsheet on Resprouting Hardwoods](#) for more information.



*Planted Conifer Seedling, Photo by Katie Reidy, UC ANR*

## **The Need for Cone & Seed Collection - How landowners can participate**

According to American Forests and California's Reforestation Pipeline, California needs to replant ~1.5 million acres burned in recent high severity fires. Without active restoration, these landscapes face an increased risk of conversion to non-forested shrubland. To help address this need, American Forests established the California Cone Corps. This workforce development program builds capacity to address California's conifer seed shortage by training skilled tree climbers to increase cone collection across the state. CAL FIRE's Reforestation Services Program (RSP) collaborates with Cone Corps to help identify and monitor cone development across California and collect cones at the optimal time.

Private forest landowners can also play a role in this endeavour. CAL FIRE's Reforestation Because of YOU (RBY) Program connects landowners with CAL FIRE and Cone Corps. Cone crops are identified, monitored and collected on private forestland at no cost to the landowner. If a viable cone crop is collected on your forestland, a portion of the clean seed will be reserved and stored for your use free of charge at the L.A. Moran Reforestation Center for up to 4 years.

A landowner who wants to grow seedlings from some or all of their seed portion can communicate their request with a nursery (it could be



any tree-growing nursery in the state or CAL FIRE's nursery in Davis). The nursery uses the seed germination rate (provided by the seed lab) and the seed per pound value to calculate how many seeds need to be sown and how (e.g. 2 seeds per cell) to determine how many pounds, or what fraction of a pound of seed are needed to grow the requested number of seedlings. Once that is determined, the landowner is responsible for shipping (seed can be shipped or picked up upon payment) and the cost of growing the seedlings.

Landowners should note that nurseries typically start planning their planting space in the winter, because they have to stratify the seed (for 6 to 13 weeks depending on the species) for sowing in the spring. Any seed that is collected in 2025 could be sown Spring 2027, and available for planting in Fall 2027 or Spring 2028.



*Cone and cone collection. Photos by CAL FIRE. L.A. Moran Reforestation Center*

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## Preparing for planting in Post-Fire Landscapes

We highly encourage landowners to consult with local experts, foresters and agencies such as the local Fire Safe Council or Resource Conservation District (RCD) for local/regional advice on reforesting large properties. These experienced individuals can help guide landowners in determining their priorities, goals and objectives for their unique property and circumstance.

Considerations prior to planting or purchasing seedlings include:

How big is your property?

- Can you plant it all yourself? Do you need to hire a crew?

What did the landscape look like, pre-disturbance/fire?

What do you want it to look like in the future?

- Tree species? Species diversity? How dense will you plant?

Reasons for planting?

- Timber/Ecological Health/Aesthetics?

What is your maintenance plan?

- As trees grow, will you manage density? Will you thin?
- How will you manage competing vegetation? (Herbicide, hand grubbing, mechanical?)

In high severity landscapes, reforestation can be similar to planting a garden. We may plant more seedlings than desired in the long run, so removing excess seedlings when they are small is key because it is easier than when they are full grown trees. Having a plan for controlling the competing weeds/vegetation early on, is important to success.

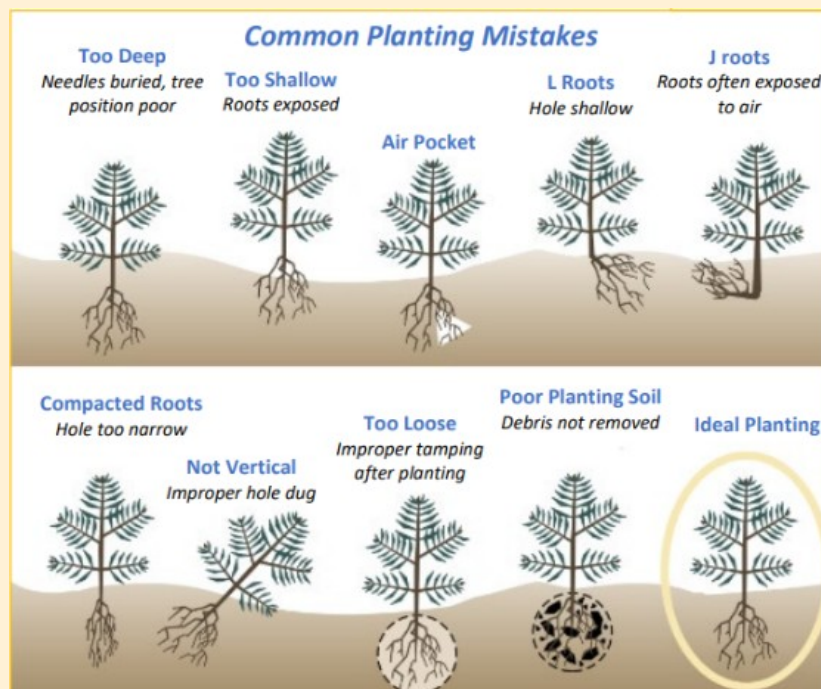
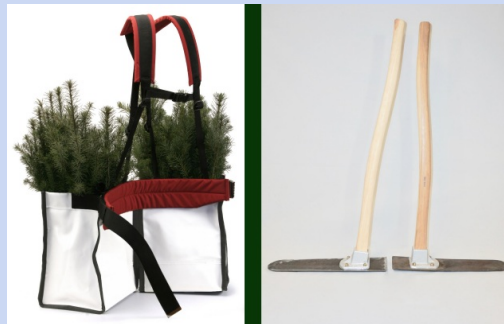


Photo from UCANR Common Planting Mistakes Factsheet found [HERE](#)

Stephens, S. L., et al.  
(2007). Prehistoric fire  
area and emissions from  
California's  
forests, woodlands,  
shrublands, and  
grasslands. Forest  
Ecology and  
Management

Cone & Seed  
Collection: A Forest  
Stewardship  
Education Program  
Webinar

Reforestation Because  
of YOU Information



*Planting crews utilize planting hoe and tree carrying bag, in Plumas County  
Photo by Julia Sidman, Butte County RCD*

## **CAL FIRE's L.A. Moran Reforestation Center**

CAL FIRE's [L.A. Moran Reforestation Center](#) in Davis, California, is a state-run seed bank for California native trees. The center's reforestation focus includes collecting cones from across California (with an emphasis on high priority tree species), seed processing and storage, propagation and seedling growth, and the distribution of seedlings to any and all-types of forest landowners. Established in 1921, L.A. Moran has grown millions of seedlings for reforestation efforts.

The center provides various resources for forest landowners including:

1. [Seed zone lookup tool](#): An

## **Build your cone & seed collection skills at Cone Camp**

To help build capacity for cone and seed collection and reforestation efforts, American Forests, in collaboration with CAL FIRE and the USDA Forest Service, host Cone Camp which is a 2-day, hands-on field training with a short online prerequisite course.

Attendees learn how to identify, monitor, and collect seeds from California's native conifers through hands-on activities using cone collecting equipment. Participants also learn surveying and cone cutting techniques.

Anyone interested in learning these skills can participate in the training, including private forest landowners.



interactive viewer that lays out California Tree Seed Zones using 500' elevation bands. You can search by entering an address or scrolling through the map;

2. A Seed Bank Assessment of Needs (AON) tool: Provides statistics on the number of cone bushels needed to meet the 25 percent reforestation goal in non-federal conifer timberlands for 15 common conifer species in California;
3. Newsletters on what is happening at the center (sign up on their website); and
4. Monthly tours open to the general public.

L.A. Moran Reforestation Center will also work with private forest landowners in need of seedlings for their reforestation efforts. Starting in May, landowners can submit their seedling request orders. Center staff will let you know if they have climate-appropriate seed available for your order. Staff will begin propagation and growing the following February and will care for seedlings for 9 months. In November, seedlings will be available for fall planting.

\*Note that this is a year-long process so you will not receive seedlings until the following year.

There will be a one day mini-cone camp in Placerville on July 10th. Click [here](#) for more information.



Cone cutter (top) and cone collection tools (bottom). Photos by Kim Ingram, UC ANR

*"When you're a forest landowner, post-fire, you need someone to advocate for you and explain this whole new world of managing forestland." Sutter Rogers*

### Speaking with a landowner, Post Wildfire

For Sutter Rogers, community and forest stewardship has been the family business since 1965. That's when her grandparents bought 200-acres of Plumas County forestland. The site was managed by Rogers and her husband **when the 2021 Dixie fire arrived and burned nearly 90% of the land.**

**Q: You expressed interest in reforestation immediately, post-fire, what resources did you utilize?**

**A:** Navigating the space of post-fire forest management can be incredibly overwhelming. As a landowner post-fire, you need someone to advocate for you and explain this whole new world. The Feather River Resource Conservation District provided assistance through the Emergency Forest Restoration Teams (EFRT) pilot program, which was funded by USFS State and Private grant funds.

**Q: In what ways did the Resource Conservation District (RCD) aid your reforestation efforts?**

**A:** Having the RCD come along after the fire, made the process simple and understandable. When you're a forest landowner, post-fire, you need someone like that to advocate for you and explain this whole new world of managing forestland.

**Q: What treatments have you implemented since the 2021 Dixie Fire?**

**A:** Immediate efforts post-fire was critical, the RCD helped us quickly masticate, treat brush, remove hazard trees, and replant.

**Q: How do you feel about the way your property looks today, after all the work that has gone into it?**

**A:** The pine seedlings are doing really well, the oaks are resprouting and thriving. We love having the community come out here so that other landowners can see what we've done.

**Q: What advice would you have for someone who is seeking post-fire recovery, and reforestation?**

**A:** I can't say enough about the importance of community. Even if you didn't lose a home or a property during a fire, you're still a part of the recovery process. It's okay to feel loss and do what you can to contribute.

*For more on this interview with Sutter Rodgers in Plumas County, be sure to check out the [UCANR Blog article](#)*

Post-Fire Reforestation  
Considerations Webinar

UCANR Post-Fire  
Education Factsheets

Managing Resprouting  
Hardwoods

## Other Stewardship items of note...

- The Forest Stewardship Education Program currently has funding to continue the program through June 30, 2027. This means you still have time for your initial site visit with an RPF, Burn Boss or Certified Range Manager. The new deadline for all site visits is May 1, 2027. No matter which workshop you participated in (even back in 2020!), if you completed the workshop, you are eligible. You DO NOT need to complete your forest management plan before your site visit, just having your management goals thought out is good enough! Need to make up a session in order to qualify for your free site visit, we can arrange that. Contact Kim Ingram at [kcingram@ucanr.edu](mailto:kcingram@ucanr.edu) for more details.
- Keep up to date with new forestry information by following us on our [Forest Research & Outreach blog](#) and [FaceBook](#)
- Check out the new stories on our [Forest Stewardship Story Map](#)! Read what your fellow forest landowners and workshop participants



are up to. Connect with your local natural resource professionals. Interested in having your story added to our map? Please contact our Forest Stewardship Communications Specialist Grace Dean at [gndean@ucanr.edu](mailto:gndean@ucanr.edu)



*Forest Stewardship-Sonoma Co-hort participants during their field day.  
Photo by Kim Ingram, UC ANR*

For more information on the workshops, and to share with a friend, please visit:

Stewardship:

<https://ucanr.edu/site/forest-research-and-outreach/forest-stewardship-workshops>

Post-fire:

<https://ucanr.edu/site/forest-research-and-outreach/post-fire-forest-resilience>

### **Upcoming Forest Stewardship and Post-Fire Forest Resilience Workshops and Field Days:**

- [Forest Roads Management Field Day](#) in El Dorado County, July 19, 2025
- [Forest Stewardship Nevada-Yuba Co-hort](#), Online July 1 - August 26, in-person July 26, 2025



*Speakers at the Caldor Fire Post-fire Forest Resilience Workshop field day.  
Photo by Kim Ingram, UC ANR*



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