UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

Forest Stewardship Education Newsletter: December 2020

Upcoming 2020 - 2021 Forest Stewardship Workshops

November 3rd – January 11th

Location: Online and Mariposa, CA (Mariposa County)

January 27th – April 13th

Location: Online and Big Sandy Rancheria, CA (Fresno County), Registration now open.

March 22nd – May 27th

Location: Online and Eureka, CA (Humboldt County), Registration now open.

Additional workshop hosted by your local UCCE office can be found by searching 'UCCE (your county)'

Greetings from UC ANR

Wildfires are a natural part of many of California's ecosytems. We know many of our plant species have adapted to frequent, low-intensity fires. Some tree species are serotinous meaning they need fire to release their seeds from cones. We also know that Native American tribes have used fire on California's landscape for thousands of years to manage habitat and resources.

However, the 2020 fire season has been far from 'natural'. Warmer, dryer conditions are increasing moisture stress on vegetation making all California landscapes more susceptible to severe wildfire. According to Cal Fire's 2020 Incident Archive, there have been 9,279 fire incidents in 2020, consuming 4,197,628 acres including 10,488 structures. Tragically, there have also been 31 fatalities associated with these fires.

Forest landowners have a number of management options for addressing fuel loads *before* a fire starts.This Forest Stewardship Newsletter is dedicated to providing information and resources to landowners *after* a fire has burned through their forestland.

– Kim Ingram, Forest Stewardship Coordinator, kcingram@ucanr.edu

Q: With very heavy burn severity, (full crown, 360 bark burns), at what point would you replant? – Workshop participant

A: If you have trees that are of commercial value, harvest them now using Forest Practices Act exemptions. Consider leaving a few trees, clear around the burls and watch for re-sprouting (in redwoods). When replanting, plant less dense. – Mike Jones, UC Forestry & Natural Resources Advisor

Photos courtesy of Santa Cruz workshop participants

What to do now? Information forest landowners should consider following a wildfire.

Recovering from Wildfire: A Guide for California's Forest Landowners by Kristen Shive and Susie Kocher discusses issues forest landowners should consider after being affected by wildfire.

Low, moderate and high-severity fires have varying ecological effects on forests, each with their associated concerns and mitigation activities. By assessing a fire's severity across the forest, landowners can identify the variations in impact which can help identify immediate needs and effects, as well as predict long-term changes.

Mitigation efforts will differ depending on fire severity, location of impact, and stewardship goals. These efforts may include reforestation, addressing erosion, repairing road or culvert damage, hazardous tree removal or salvage harvest. No matter what activities a forest landowner decides to pursue, there is professional help available, as well as cost-share funding opportunities.

Q: How long can a dead redwood snag stand and still be viable for lumber? –Workshop participant

A: For personal use of the standing dead redwood, you probably have several years during which the tree will remain standing. For commercial harvest, it depends on the sapwood to heartwood ratio. The more sapwood in the tree, the more decay there will be, so the less time you have. For Sierra species, quality and value will degrade within 12 to 18 months except for cedar, which may last up to four years. You might want to consider that harvesting after a fire might provide you the opportunity to get management activities done that you have always wanted to do, such as burying water lines or installing/improving culverts. – Bill Stewart, UC Forestry Specialist

Relevant Online Resources for You!

California Fire Science Consortium: Part of the Joint Fire Science Exchange Network which provides science-based fire science information and facilitates dialogue between interested stakeholders.

Forestland Steward, Spring 2019: Wildfire recovery tips and use of CFIP cost-share funding for forest management activities.

Damage and Mortality Assessment of Redwood and Mixed Conifer Forest Types in Santa Cruz County Following Wildfire by Steve Auten and Nadia Hamey. A case study to share information and lessons learned on redwood and mixed conifer forests impacted by the Lockheed Fire.

Santa Cruz RCD's Post Fire Recovery website: Information on recovery assistance, as well as webinar recordings from their 'Protecting your land after a wildfire' series.

UC ANR Forest Research and Outreach Wildfire Webpage: Resources and information from UC researchers on wildfire, prescribed fire, recovery from wildfire, home hardening, and much more! Additional resources can be found on the Forest Stewardship webpage under 'Workshop Materials' and 'Additional Resources'.

Photo courtesy of Santa Cruz workshop participant

Forest Stewardship Wildfire Recovery Session

When we began planning for the Santa Cruz Forest Stewardship Workshop back in May, little did we know that several of our participants would be directly affected by the CZU August Lightning Complex fire that started August 17, 2020. Responding to the questions and need of this co-hort, we put together an additional workshop session on fire recovery with speakers Yana Valachovic, Forestry and Natural Resources Advisor in Humboldt and Del Norte Counties and Mike Jones, Forestry and Natural Resources Advisor in Mendocino, Lake and Sonoma Counties.

Along with answering specific questions from workshop participants, they shared other relevant information including four variables landowners can use to assess the burn severity in trees:

1. Bark scorching – consumption and bark splitting indicates damage to woody tissue. Small patches of this on a tree are generally ok. If you observe bark scorching all the way around the tree, that could indicate significant damage to the tissues below the bark which could result in tree mortality.

2. Cambium damage – you can use sounding to test for the extent of internal damage. The less cambium damage a tree has (in general <50% of the circumference), the more likely it will be able to recover.

3. Root damage – often seen as deep ruts in the soils. Check for root damage out to the tree's drip line. A tree can recover from minimal (<30%) root damage, but damaged roots can lead to structural weakness.

4. Canopy scorching – often not a good estimate of mortality in redwoods because of their ability to re-spout. However, this is different for other conifer species, where 'red is dead'. Brown needles are often due to the heat of the fire not flames. For redwoods, if there are no needles, then the fire went into the canopy and these are the trees you will want to watch to see if they will re-sprout.

Photo courtesy of Mariposa workshop participant.

Q: Does sprouting in redwoods start at the base or farther up? – Workshop participant

A: Redwoods can sprout from almost every tissue: at the root collar, burls, main stem, and branches. Just let the sprouts go and dominance will naturally favor the best sprouts. Once you have sprouts of size, then you can consider thinning out the weaker ones if you want to. - Mike Jones, UC Forestry & Natural Resources Advisor

Reminder! Deadline for initial site visit is June 30, 2021!

If you were impacted by wildfire this year and need specific advise, or simply want to be prepared for next year's fire season, consider using your free initial site visit with an RPF. Please contact Kim Ingram at kcingram@ucanr.edu for more information and a list of RPFs who have participated in our workshop series.