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Coppice?

BY SANDY SHAFFER, APPLEGATE FIRE PLAN

Coppice: from late Middle English, 1375-1425 "*copies*" – cutover area overgrown with brush, from "*colpare*," to cut (Late Latin). Noun: 1) a thicket, grove or growth of small trees. 2) a forest originating mainly from shoots or root suckers rather than seed. Syn: Copse.

I think I first read the word copse in Winnie the Pooh, so many, many years ago (my hubby says I should have added in even one more "many"!) I first started using coppice as a vegetation management tool a dozen years ago, but at the time I had no idea that I was coppicing! We had thinned the trees on our homesite and were building our retirement home. I saw the copious numbers of oak and madrone shoots that grew back from the stumps that we'd cut the year before, and wondered what to do with them. The Fire Chief definitely wouldn't approve of all those ladder fuels so near the homesite! So, I cut all of the shoots down except the straightest and tallest, and let those saplings grow. Over the years I had to continue to cut out the re-occurring shoots each spring, but I observed that the madrone and the black oak stopped re-sprouting within a few years— if I had let one sapling remain. (If I didn't, they re-sprouted for upwards of a decade before running out of steam.) The white oaks, however, are still sending up a load of shoots each spring.

My most successful example of *coppice* has been with some black oaks. After twelve years, we have three beautifully shaped young oaks that stand at least 20 feet tall alongside the driveway, and the colors each fall are spectacular. I must have chosen exactly the best sprouts (see Steve's graphic, below), as other black oaks I've *coppiced* have not developed as quickly.

I have not used this *coppice* technique strictly for firewood production, as Steve's article below discusses. However, as trees mature and fill out and I find that my stands aren't quite as open as I'd like (for fire resilience), I know that I can remove a good-sized madrone or oak and use it for firewood, and have another tree back in a few years. And, I've lately taken to managing our southern exposure oak woodlands using *coppice* as well. They were thinned of brush (almost all— we left a few wildlife habitat islands) ten years ago, but some of the suppressed trees still have not released and started growing. So, I'm removing them to let the more dominant trees bloom, again knowing that I'll have some choices to make in the coming years.

Some folks might grumble about the maintenance involved in cutting trees that will re-sprout each spring, and that's valid. (I've pointed this out in past articles on maintaining a defensible space.) I am fortunate to be able to keep up with the work. A pair of 30" long-handled loppers makes it easy for me to cover my defensible space circle annually, and I rotate through the rest of the acres every few years, doing a lop-and-scatter. For me, *coppice* has been a management tool that allows a lot of flexibility and creativity.

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Figure 1. Coppice of Pacific madrone in Southwest Oregon. The parent trees were topkilled by wildfire. The landowner thinned the sprouts. The remaining sprouts will be allowed to grow and then harvested for firewood.



Coppice this! BY STEPHEN FITZGERALD, OSU EXTENSION SERVICE

Coppice is the culturing of stump sprouts that develop on hardwood stumps (and some conifers) after cutting. Coppice management of hardwoods is a silvicultural system that is seldom used by family forest owners, but it has great potential for those interested in promoting hardwoods in their forest for diversity or to use for firewood (see Figure 1) or sawtimber, depending on species and its marketability. Coppice is one of the oldest methods for regenerating forests. Species that coppice well include aspen, bigleaf maple, alder, oaks, myrtle, cottonwood and Pacific madrone. Redwood is an important commercial conifer that coppices well. In fact, most of the second-growth redwood trees that are harvested today developed from sprouts from the old-growth stumps.

Once hardwoods are cut, the stump erupts with a profusion of sprouts that arise from dormant buds on the top, side and root collar of the stump. The sprouts grow rapidly because they have the advantage of using the parent root system and carbohydrate stores. The benefits of culturing trees from sprouts is that you don't have to spend money planting them, and sprout growth is often faster than the same species planted as a bare-root or plug seedling. Typically, hardwoods are killed to favor more desirable conifers, such as Douglas-fir. However, you may want to consider promoting hardwoods in areas lacking conifers or in areas not capable of supporting conifers.

How to cultivate and manage sprouts

If you are already conducting a timber harvest in an area, here is a rundown of how to coppice (propagate) hardwood trees from stump sprouts:

- Cut down hardwood tree, creating a low stump.
- Let stump sprout. Hundreds of sprouts will erupt depending on tree species and size of stump. Let the sprouts compete with each other for several years (five years or so). Most hardwoods need this kind of "training" to help produce straight stems. Let them compete and grow tall enough

After five years or when they reach 18 to 20 feet, select one to three of the straightest stems to leave and flag them. Cut away all the other sprouts. Sprouts to leave should be selected from the lower portion of the stump or from sprouts that originate from roots (Figure 2). The reason for this is that if you select sprouts from the top of the stump, the stump eventually rots and the sprout can break out as they mature.

- The one to three remaining sprouts can be thinned again, if needed, a few years later, leaving the best sprout. The remaining sprouts can be pruned to produce clear wood (Figure 3).
- Allow sprouts to grow to the desired diameter, then cut, harvest and start over.

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Figure 2. Select sprouts from the lower portion of the stump or from sprouts originating from roots.



Figure 3. This bigleaf maple tree originated from a center sprout. The other sprouts helped

so that you get at least an 18- to 20foot straight stem on the best sprouts within the clump. train this residual sprout and then they were cut away. This tree could now be pruned up further (to the fork) to produce clear, high-value sawtimber.

