

It is a BIG Acorn Year
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Everyone knows that acorns are important in oak woodland ecosystems. They are the source of new seedling trees; they are food to many organisms including humans, squirrels and other rodents, and a multitude of insects that are highly adapted to utilize acorns for their food crop. Some years there are almost no acorns and others, the trees are drooping from the weight of the fruit. Acorns do tend to alternate bear, but there are other factors that influence the development of this important kernel. For many species in California, last year was one of the most sparse in terms of production. Folks have been counting acorns for years in California and several have noted that 2003 was one of the worst acorn crops in years, particularly for blue oak-(*Quercus douglasii*) and Valley oak (*Quercus lobata*). This year by all indications this could be a very heavy crop year.

There are a number of factors that influence acorn production. Weather at the time of flowering is important. Oak flowers are wind pollinated so conditions that favor pollen dissemination would encourage better pollination. Warm and dry conditions are ideal. Wet, cool or foggy conditions would likely limit pollen movement. As well, according to recently published research, when trees are poised for putting on more woody growth, their acorn production seems to go down. Perhaps this is related to a partitioning of resources in the plant toward growth or reproduction. Years that have significant winter rainfall may be a determining factor for growth.

Because this may indeed be a heavy crop year, this late summer and early fall may be the time to consider collecting acorns and direct seeding them in the field or growing seedlings in containers. Begin by selecting large, well formed acorns that are

free of pests. Choose freshly fallen acorns that still have a greenish shiny shell that is just beginning to turn brown. There are several ways to plant them but the easiest is to just plant six to eight acorns in a 10 inch circle in the soil with the tips down (remove the cap first). Water the acorns after planting to encourage rapid germination. Once the seedlings are 2-6 inches tall, select two or three of the strongest ones and remove the rest. Once the remaining ones are well developed, then remove all but the very best one. You could also pre-germinate the acorns in a moist flat of sand, again with the tips planted down. They should sprout about a month after planting. It is important to transplant the young seedlings to their permanent location within a few months after germination to avoid problems with root structure.

If you would like to learn more about planting your own oaks, contact UC Cooperative Extension in Mariposa at (209)966-2419 and ask for the free publication "Plant Your Own Oak Tree" #21334, or send a legal sized self-addressed stamped envelop to UCCE-Oaks, 5009 Fairgrounds Road, Mariposa, CA 95338-9435. We'll put one in the mail to you right away.