

Mast year–Acorn Abundance

As I walk my dog in the morning, I move carefully across the street and sidewalk covered with slippery acorns. This is truly a mast year!

The number of Acorns that set on Oaks can vary from year to year, and from species. When oaks bear heavily, about every fourth to tenth year, it is called a ‘Mast’ year. Bearing is affected by frosts, drought, spring rain and insect predation, with no fool-proof indicators yet discovered that will allow firm predictions. We have had very light acorn crops for the past three or four years, but this past spring was dry, and the light freeze we had in January knocked back some of the insect pests. The result this fall is prolific acorn production around the county on *Quercus lobata*, valley oaks, in particular. Research done at the Hasting reserve indicates the heavy acorns sets for valley and blue oaks are most dependant on the weather in April when pollination occurs. A warm April means more acorns. Acorn production for *Quercus agrifolia*, Live Oaks, seems to be related to the rainfall that occurred two years prior.

Acorns are food for deer, mice, squirrels, woodrats, jays, quail, band-tailed pigeons, woodpeckers and others. People have collected acorns as fodder for pigs and chickens, and for their families as well. Acorns produce chemical compounds to try to deter animals from eating them. One of the chemicals is tannin, a bitter compound that has been used to preserve leather. Some animals can digest tannins, but when people want to eat acorns, the tannins must be leached away. Tannins are water soluble, but for folks with oaks overhanging pools this can be an issue as the tannins can stain the pools and turn the water the color of tea.

Acorns are eaten by many animals and insects, and very few of the acorns that fall will ever germinate, some research indicating that only one in ten thousand ever get to produce leaves. That said, acorns send down deep roots very rapidly, and by the time an oak seedling is about 15-20cm (6-8”) tall, the tap root may be down .5 meter (1-2’). That deep root allows the seedling to survive being eaten by deer or elk, or gardeners trying to get rid of seedlings in the middle of their gardens. I have one *Quercus lobata* seedling that comes up from under my deck that I have been cutting back to ground level for over 20 years, and it persists, perhaps just to show me that I am really not in charge. My recommendation is to dig up seedlings in beds with trenching shovels to get as much of the root system as possible. Or just resign yourself to cutting them back several times a year in perpetuity.

So what do you do with all those acorns? They are beautiful and lovely when put in a wooden bowl just to look at. You can try leaching and cooking with them, or pile them up as a food source for quail and deer. Enjoy them, and the wildlife they feed.