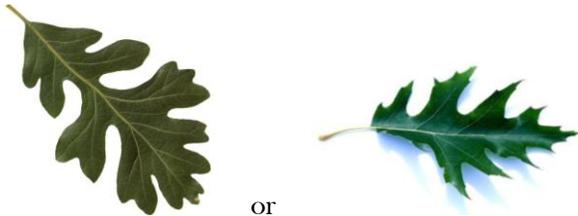


Can you spot an oak?

Worldwide, there are hundreds of different kinds of oaks; in Madison we have mostly red oaks, pin oaks, and white oaks.

Each oak has a slightly different leaf form, but the general shape is like this -



If the leaves have pointy tips, this is probably a pin oak. They are the ones that keep some leaves through the winter.

Oak trees all grow from acorns, though, which take between 6 and 24 months to mature.



Acorns (or oaknuts) not only grow into new trees, they are very important in forest ecology. Birds, such as jays,

pigeons, some ducks, and several species of woodpeckers eat them. So do mice, squirrels and several other rodents - and so do deer and bears! They are full of nutrients, but the tannin in them makes them taste bitter. One of the reasons that squirrels bury them is so that while they are in the ground, rain waters makes them wet and the tannins seep out and they taste better. People, too, can collect acorns and soak them in water to remove the tannins. Acorns can then be lightly roasted and ground into flour. Many ancient cultures did that, including Native Americans. The tannins are used for making leather.

Oaks produce more acorns when they are not too close to other oaks and thus competing with them for sunlight, water and soil nutrients. But every big oak sustains its own little ecosystem, and every oak tree, as it grows, transforms CO₂ into oxygen for us to breathe. Its roots hold the soil in place, so it doesn't wash away during storms. The roots also slow the water's descent through the earth. This has an effect on flooding, AND it is a filtering process, too; the water that gets down to the aquifer is much cleaner.

Amazingly, every four to ten years, certain oak populations will synchronize to produce almost no acorns at all, only to rain them down excessively the following year, known as a "mast" year. The year before the "mast" year is a starvation year for the animals that feed on the acorns, but the "mast" is necessary to the survival of any given oak species, as only one in 10,000 acorns results in an eventual tree.

Planting oak trees that are native to our area is very important because of the ways that an oak tree supports local populations of insect and animal wildlife. Non-native trees compete for space, sunlight, water, and nutrients, but they don't contribute to any local ecosystem. So everything that depends on the native tree to live dies if that native tree is no longer there to provide what is needed.

