SEPTEMBER 2019

Distinguishing Between Red & White Oak



The Red-White Challenge

One question we frequently hear is, "What is the easiest way to tell Red Oak from White Oak?"

One would think that the color description alone would be the logical determining factor; Red is Red and White is White, right? Actually, this isn't always the case!

Many factors affect the color: the species of the tree, where the tree grew and the local climate are just a few contributing factors. Attempting to judge by color alone can make it difficult to tell them apart.

The quickest way to distinguish between them, is to look at the end grain. Red Oak pores are larger than White Oak. (Interesting Fact - If you place one end of a piece of Red Oak in soapy water and blow through the other end, you will actually see bubbles!)

This is not the case with White Oak; the pores, (when viewed in the heartwood section) are plugged with tyloses, which give it increased resistance to rot and decay. This is what also makes White Oak great for use in the making of whiskey barrels!



The pores found in the growth rings of Red Oak are very open and porous.



The pores in the heartwood of White Oak are are plugged wtih tyloses, making them more difficult to



But, What If I Can't See The Ends?

In situations where the wood is finished and the end-grain is not exposed, you can still distinguish between Red Oak and White Oak.

Just take a look at the face of the board, particularly in the flat-sawn areas. You will notice darker streaks running with the grain. These streaks are often referred to as "rays".

Red Oak will almost always have very short rays, typically no longer than 1/2".

White Oak, on the other hand, will have much longer rays, frequently exceeding 3/4" in length.



Red Oak has very short rays, typically between 1/8" and 1/2" in length.



White Oak has much longer rays, frequently exceeding 3/4" in length.

Characteristics

So, what are the differences between the two?

- If you are looking at an Oak tree with rounded leaves, it is White Oak. Those with pointed leaves are Red Oak!
- When looking at a quartersawn surface, White Oak has more dramatic ray fleck patterns than red oak
- White Oak is more resistant to rot, making it more suitable for exterior applications such as exterior doors.
- Red Oak is suitable for interior use such as cabinets and furniture.
- White Oak is typically higher priced than Red Oak.



Quartersawn White Oak contains more dramatic ray fleck patterns than Red Oak.

