In this lesson, we will discuss how to control the wood grain pattern by the lumber cut.

Wood Grain" is the patterns of relatively darker and lighter wood resulting from the differing growth parameters on a cut or sawn piece of wood. As we have previously discussed, wood holds a lot of water, and logs are typically cut while the wood is still holding water in its internal structure - called "wet" or green – and allowed to dry after being sawn into boards.

How we cut a log into finished boards changes the finished grain pattern of the board. There are two basic types of saw cuts: Flat Sawn and Quarter Sawn.

"Flat Sawn" is literally cutting the logs into flat boards across the entire width of the log. This typically Cuts zero to thirty degrees to the face of the log. This will produce a "Flat Cut" or "Plain Cut" boards. The wood sample shows a typical flat-cut grain pattern. One disadvantage to this method is that wood cut this way is subject to deformation – also called warping – while it dries. The advantage is that this is the least expensive way of cutting and produces the most useable wood.

Quarter sawn is the other most common type of saw cut. In this cut, the log is cut 60 to 90 degrees across the face of the gain. This produces the "quarter-sawn" grain that is commonly considered superior for fine woodworking. The wood sample shows typical "quarter-sawn" grain pattern. This cut produces boards that have less tendency to warp while the wood is drying. This type of cut is more expensive as it results in less usable lumber from a log than flat cutting.

These wood samples show the differences in grain pattern between flat-sawn and quarter-sawn. Please take a moment to view these samples.

Another characteristic of grain pattern is called "figuring." Figuring means other patterns in cut lumber. These patterns may e the result of abnormalities in the tree growth, or a result of the cell structure of that species of wood. This "figuring" typically adds value to the appearance of the wood, so considered desirable characteristics.

Thank You