

Written by Orland Lynch, Weyerhaeuser Timber Company, Klamath Falls, Oregon.

In establishing a new kiln schedule for a certain species of lumber, there are several things you can do, especially if you know a little in advance what is coming.

Literature can be obtained from several sources. Practically all kiln clubs have pamphlets or they can be obtained from the Pine or Fir research divisions, or the Forest Products Laboratory at Madison, Wisconsin.

Then with this information in mind, contact your club members, especially those that are drying the same kind of lumber. I believe that this information is the most valuable, as nothing can beat actual experience, especially in this kind of work. All members that I have ever contacted have always been glad to help.

Upon receipt of information from other members, remember to take into consideration the type of kiln, speed of air flow, volume of air, radiation, fresh logs, texture, and segregation adapted to their particular kilns.

Somewhere along the line, you will find that in the drying of any lumber, it is a pretty well-known fact that practically all defects that occur in kiln drying will also occur in air drying, with the exception of stain.

When told we would be getting some Douglas Fir, we looked up all the information we could and contacted Mr. Carl Rasmussen, head research engineer of the Western Pine Association at Portland, Oregon.

We had asked him the difference in shrinkage between Douglas Fir and Ponderosa Pine. He sent back the information that in drying down both species to zero moisture content, fir would shrink just about double that of pine. Either tangential or radial.

The first thing we did was to start steaming the kiln and by constant observation, found that twelve hours of steaming at a ten degree spread, was the best. The reason for this steaming period at the start of the run was to soften or saturate the outside fibers, making them more pliable so that the cells or wood fibers inside the board would more readily give up or transfer the moisture to the outside with less restrictions.

After twelve hours of steaming, we shut off the water and steam and opened our vents, and within a short time found check through out the ends of the lumber, so we again shut all the vents, leaving the water and steam turned off. It still checked a little so we steamed it again and started over. Needless to say, it took quite a while to dry this charge.

Our next charge, we started the same way. We set our pens with a ten degree depression

for twelve hours. At the end of twelve hours we turned our water and steam sprays off but left all our vents shut the rest of the run. When dry, we had a good product.

You have noticed that there are no suggested temperature settings here, as I do not believe that any one of us are qualified to give any one a definite schedule without knowing all the facts of the kiln the lumber is supposed to be dried in, and if a schedule were suggested, it would be a mild one that the kiln operator could adapt to his own kiln and could be increased to insure more efficiency.

All of our schedules are worked out in the actual drying process. As we go along, different changes are made to fit the needs of the lumber. Sometimes we get old logs which means we must use a milder schedule or the lumber may come from different locations such as high and low altitudes. You will find that you will have to change your drying schedule many times to fit your needs and turn out a good product.