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When I look out across this group, I'm sure that you've found these meetings a help to you -- a new idea; a new thought; a question answered and that has always been my feeling for the many meetings I've attended. "What about your dry kilns?"

When we entered the lumber dry kiln business about 40 years ago when we bought out the North Coast Dry Kiln Company it was my firm belief that by this time we would have a dramatic change in our method of drying lumber. I still predict that there is a better way coming, 10 years ago I stated that it could take place within 30 years and I still have 20 years to go, I am still of the same opinion.

With all of the new dry kiln companies that have entered the business in the past 10 to 15 years, we could have a breakthrough as more men and women put their minds to new ideas and advancements.

In dry kiln meetings the format seems to be the same. First, visit the sawmill to see the new machinery with it's exotic electronic and computer controls. As you all know, the Europeans and Scandinavians have long been using these techniques, but they have also been growing, 6, 8, 10, and 12 inch diameter trees as a crop for hundreds of years longer than the 200 years of U.S. history and it's easy to adapt to these uniform sizes to computer operation. After the mill and kiln tour there is lunch and then a question and answer period, which doesn't last long.

I am all for these meetings, but could we add to them? Take a 1/2 longer time to refresh ourselves. How many of you know what the dew point is; relative humidity; equalization moisture content; and can you explain them to your helpers? Now ask yourselves, can I and do I. Maybe 1/2 hour in a dry kiln meeting will refresh all of us on these points and next meeting pick out one or two other points to go over, such as steam, BTU's and latent heat, etc.

At an Idaho, Montana dry kiln meeting a week ago Saturday in Coeur d'Alene, I spoke on dry kilns. A young chap came up and asked where he could find information on drying. His father, the dry kiln operator, was retiring and son taking his place. The father admitted he could not answer the son's questions.

Never, no never, think that a question seems too silly to ask. That's one of the best methods that I know of to learn. I've also found that these men and women come to school with many questions about their dry kilns, not questions of theory but practical questions about their dry kilns. I feel some effort should be made to have these questions answered.

Now, today I am worried with our past several years of inflation. Our bureaucratic agencies and politicians listening to the vociferous minority and spending money and giving it away as if it were going out of style I'm afraid that inflation is on the edge of being out of hand. One of our great presidents whom politician after politician and president after president have tried to emulate as they ran for office once said in a famous speech, "you cannot take away from the rich and give it to the poor." You need the incentive to be rich to work long hours; long weeks; sacrifice; produce; invent, etc. That president was "Abraham Lincoln." With inflation out of hand as I feel it is today, material costs have soared. Labor costs and benefits have skyrocketed as well with little or no increase in production to keep pace. Taxes, insurance and every facet of doing business have increased.

Logs are becoming smaller and some sawmills do have a chance to increase production per man with the more sophisticated equipment that they are installing.

But what about your dry kilns? You are going to have to live with your present dry kilns. Only new dry kilns for increased production are being added. I have been told by most of the dry kiln manufacturers if they depended upon the sale of new dry kilns to stay in business that they would go broke. I too concur. Today a new dry kiln is a very expensive piece of equipment.

The burden is on every dry kiln operator to get the most out of his kilns. So, what are you doing about your dry kilns? You can ask for and be budgeted to spend maintenance dollars to upgrade your kilns. This should go hand in hand with the sawmill that is putting in new equipment and controls. You might ask, "what can I do to upgrade my kilns and increase production?" Let's discuss and go over again a number of things that you might do and there are probably others that you can add.

- You can set your kiln schedules up every 2 hours instead of every 8 or 12 hours. For years I have recommended operators do this and watch recorder controller vent gage (no vent 10 min), or churning not drying. Some mills accomplish this with cam controllers and others with more frequent sets. One mill after last set has no venting for 10 minutes and pulls charge.
- 2. Add radiation to come up to set faster.
- 3. Add air volume to come up to 500, 600, or 700 feet/min and thinner stickers but be careful.
- 4. Uniform radiation with proportional heating valves.
- 5. Roof vents with proportional control. Tell about timing vents, or duplex action. We are developing a proportional control for vents to be installed on over 30 lines of vents in the near future. We have two other developments under way but it is too early to report at this time although the preliminary looks promising.
- 6. Tell about pressure venting.
- 7. Insulated doors.
- 8. Upper and lower baffles.
- 9. End baffles.

When I ask, "What are you doing about your dry kilns this is what I meant.

What are you doing about the loads of lumber you get to dry? Don't use stickers that are too thin. Do you tell the superintendent of poor loads or do you accept them and say "Oh, well! What the Hell," and do the best you can. We can design, manufacture and install drying kilns to do you a certain job, but it's up to you to use the kilns to their fullest. Make your kilns work for you. Push them as hard as you can and you will soon find out if you have enough radiation and air speed. We put a hi-temp kiln in several years ago and had enough radiation and air speed to cut the drying time almost in half from the other kilns, or almost a 100% increase in production. A result of greater radiation and air speed.

What about your dry kilns? You can't have new ones, but I'll bet a great number can be upgraded. Why don't you give it a good try?

Thank you for giving me the opportunity to speak to you again.