Introduction

Is there value in the wets currently being generated? If the percentage of wets is negligible, is there lost value in over-drying? Would there be an increase in value if the average moisture content was a couple of percentage points higher?

Benefits

Tangible: Economic/payback analysis
Intangible: Corporate risk assessment
Changes to market place MC requirements, or, what is a "wet" board?
Trend of customers not willing to accept wet lumber
Corporate risk in selling KD lumber but having "wets" be part of the "dry" lumber shipment
One lawsuit can significantly impact a company

Dry Sort Re-Dry Strategy

Intentionally dry in a conventional kiln to a higher average moisture content (Figures 1 and 2).

Disregard how many "wets" are created but instead, focus the conventional kiln schedule on value recovery only.

The kiln schedule modification focuses on shifting the lower left hand tail of the FMC frequency distribution to the right (Figure 3).

Drop sort before the planer (solid stacked) and reprocess the wood through a system to re-dry "wets" (Figure 4).

This strategy also increase the sawmill's effective conventional al kiln capacity by reducing drying times.
Figure 1. Redry strategy.

Figure 2. Moisture content distribution without redry.
Figure 3. Moisture content distribution after primary drying.

Figure 4. Moisture content distribution of boards to be *not* redried
Options for Re-Drying Wets

Re-dry by air drying
Re-dry using conventional kilns
RF/V Re-dry

Re-Dry By Air Drying

Advantages: low capital cost
Disadvantages: seasonal variability, geographical location, long re-dry cycle times, some pieces just won't dry.

Use Conventional Kilns for Re-Drying

Advantages: known technology, less costly than RF/V
Disadvantages: long re-dry schedule times for acceptable quality, some pieces just don't dry, large standard deviation, significant drying losses.

Re-Dry Using RF/V

Advantages: highest quality, no drying losses, maximized revenue; easy to operate.
Disadvantages: appearance of high capital cost, however fast payback; new technology
Establish Economics/Payback

For Each Option Assess:

Revenue increase
Operating cost
Design considerations for dry sort re-dry installation

Payback Analysis – The Tangibles

For each option:

Summarize the total of all revenue items
Subtract the operating and maintenance costs
The balance is the annual increase in net cash flows

Divide the annual increase in net cash flows into the capital cost to determine the payback