

Douglas Fir Schedules east of the Cascades, written by Heber Radcliff, Mcloud, California and presented by Lee Bowling, Consolidated Pine, Prineville, Oregon.

The development of new schedules in drying Douglas Fir east of the Cascades was guided more by necessity than by using the schedules available for that species and adapting them to local conditions. Today there are probably as many schedules as there are kilns.

For many years, the pine mills of eastern Oregon and northern California cut Douglas Fir only when they needed local construction timbers and heavy dimension. The selects and clears were cut to four quarter and dried with the pine selects. Due to the brown stain liability, the pine was on a low climbing temperature and low humidity schedule. When the fir came out of these runs, it looked brighter than in the high humidity runs, but there was some checking. However, the checking was light, as compared to what occurred when the small amount of fir was segregated and allowed to air dry while accumulating. Keeping these tension failure checks in mind, a schedule was developed. As the amount of Douglas Fir was very small, the time element did not cause any concern. On the basis of hourly control, it was as follows: 4/4 D. F. Selects and Clear.

0- 12 hrs.	115-103	66% RH	10.9 EMC
12- 24	120-108	67	11.0
24- 48	125-133	68	11.0
48- 72	130-115	62	9.7
72- 96	135-118	61	9.6
96-120	140-120	54	8.0
120 <sup>±</sup> to dry	145-120	47	6.9
165 <sup>±</sup> cool 2 hrs			
167 <sup>±</sup> 173 <sup>±</sup> 6 hrs	176-170	87	13.5

Lately the percentage of Douglas Fir cut by the pine mills in this area has increased greatly. A shorter schedule has become much more important. Many changes have been made. However, the first step is still protection from the sun and excessive air drying. Under our local conditions and with our stock, the following schedule has been given good results:

4/4 D. F. Selects and Clear.

0-12 hrs	to 160-130	43% RH	5.8 EMC
12-24	170-135	39	5.0
24- to dry	180-140	35	4.4
70 <sup>±</sup> 78 <sup>±</sup> 8 hrs	160-145	67	9.4

With 6 or 7/4 stock, this schedule is too severe. The following will give better results:

7/4 D. F. Shop & Btr.

0- 16 hrs	140-125	64% RH	9.6 EMC
16- 32	150-132	60	8.6
32- 48	160-128	55	7.4
48- 64	170-132	48	6.2
64 to dry	180-140	35	4.4
130 <sup>±</sup> 154 <sup>±</sup> .	160-140	58	7.9
154 <sup>±</sup> 162 <sup>±</sup> 8 hrs	160-152	81	11.6

The 4/4 Douglas fir is metered out at 12% M. C. ; the 7/4, at 10% M. C.