



CO-OP REDWOOD YIELD RESEARCH PROJECT

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CONVERSIONS FOR SITE INDEX SYSTEMS USED IN THE NORTH COAST OF CALIFORNIA

by

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In March of 1978, the Advisory Panel endorsed the 50 year base age site curves of Krumland and Wensel (1977) for redwood and King (1961) for Douglas fir as the site index systems to use in growth and yield modeling efforts.

There is still some confusion, however, as to proper conversions between the older, 100 year base age systems still in use in this region, such as those of McArdle (1949) and Lindquist and Palley (1961), and the 50 year base age systems mentioned above. Part of this problem stems from the varying methods of curve construction, the difference in stand components used in classification and the fact that site index equivalences vary with age.

While uniform conversions would require age as an access variable, an approximate, age independent conversion table was prepared. Conversions were based on ages over 50 as site index equivalences between systems are fairly stable in this age range. Table 1 was prepared using the tables and conversion equations found in Research Note No. 5 and Table 1 of Technical Bulletin #201 (McArdle 1961). McArdle's site classes were converted to King's site classes by interpolation using Table 3 in Research Note 5. The following equation, found in Research Note 5, was used to convert from King's Douglas Fir site classes to Krumland and Wensel site classes.

$$\text{Redwood Site} = 46.5 + .465(\text{Douglas Fir Site})$$

Table 2 in Research Note 5 was used to obtain estimates of Lindquist and Palley's site classes. For more accurate estimates, see Research Note No. 5.

^{1/} Revised March 27, 1979. Errors in Table 1 were corrected.

Table 1

Corresponding site indices under different systems,
for each site class.

Site Class	DOUGLAS FIR		REDWOOD	
	Bull.201 (100 yr base)	King (50 yr base)	Krumland and Wensel (50 yr base)	Lindquist and Palley (100 yr base)
I	185-215	145-165	114-123	170-185
II	155-185	120-145	102-114	155-170
III	125-155	95-120	91-102	140-155
IV	95-125	75-95	81-91	125-140
V	75-95	<75	<81	<125

Literature Cited

- King, James E. 1966. Site Index Curves for Douglas fir in the Pacific Northwest. Weyerhaeuser For. Rep No. 8. Weyerhaeuser For. Res. Cntr. Centralia, Wash. 49p.
- Krumland, Bruce and Lee C. Wensel. 1977. Procedures for Estimating Redwood and Douglas Fir Site Indexes in the North Coastal Region of California. Res. Note. No. 5. Coop. Redwood Yield Research Proj. U.C. Berkeley. Mimeo.
- McArdle, Richard E. 1949. The yield of Douglas fir in the Pacific Northwest. USDA Tech. Bul. 201. Wash, D.C.