

## Chemical and Physical Properties of Douglas Fir Bark Relevant to the Production of Container Plants®

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A one-year survey on the chemical and physical properties of Douglas fir [*Pseudotsuga menziesii* (Mirbel) Franco] bark was conducted with the following objectives: (1) document baseline chemical properties of Douglas fir bark (DFB) that have relevance to production of container plants, (2) determine the effect of screen size and age on DFB chemical properties, and (3) document the consistency of those properties throughout the year. In June, Aug., Oct., and Dec. 2005, and Feb. and May 2006, fresh and aged DFB samples were collected from two Oregon bark suppliers. One supplier offering a bark screened to 2.2 cm (coarse), and the other a bark screened to 0.95 cm (fine). Samples were analyzed for pH, electrical conductivity, and essential plant macro- and micronutrients. Native fresh and aged DFB contains significant extractable amounts of all essential plant macro- and micronutrients, except N. In general, the aging process reduced pH and increased extractability of phosphorous, potassium, calcium, magnesium, boron, and iron. Uniformity of DFB chemical properties throughout the year was affected by bark screen size and less so by age, with the coarse grade being more consistent.