

The Stand Management Cooperative: Studies on Intensive Plantation Management Impacts in the Pacific Northwest.

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The long-term future of forest industry in the Pacific Northwest depends in part on the productivity of the region's forests and on the choice of silviculturally sound and cost-effective management regimes. Large areas of plantations are being established and managed with intensive silviculture. Reliable projections of the results of possible alternative combinations of silvicultural practices are essential for realistic evaluation of forestry investments and for making intelligent choices among management regimes. Needed are reliable estimates of response to silvicultural treatments and management regimes, understanding of how product quality and value are influenced by these treatments and regimes, and methods for designing regimes that will produce high yields of wood with desirable properties. The cost of establishing and maintaining a long-term research program on the scale necessary to build an adequate regional database and understanding are beyond the capabilities of any single organization.

The Stand Management Cooperative (SMC), was founded in 1985 and merged with the Regional Forest Nutrition Research Project (founded in 1969), to create the pool of funding, scientific talent, and long term continuity necessary to achieve the following mission: "to provide a continuing source of high quality information on the long-term effects of silvicultural treatments and treatment regimes on stand and tree growth and development and on wood and product quality." The SMC is composed of forest industry, state, provincial, and federal agencies, suppliers, research agencies, and universities who commit resources and expertise to the mission. Technical Advisory Committees (TAC's) in Silviculture, Nutrition, Wood Quality, and Modeling, comprised of leading scientists, develop plans for research projects that are approved by the a Policy Committee consisting of the membership. This has led to a database consisting of 450 installations in British Columbia, Washington, and Oregon, primarily in Douglas-fir and western hemlock. These installations contain 4700 plots, containing almost 260,000 trees, with a variety of treatments that have been repeatedly measured. In addition there are soil survey data, vegetation surveys, and stem section information.

In this paper, we summarize the accomplishments and impacts of the SMC research program over the past 20 years, key factors and collaborations that have contributed to its success, and future directions.