What is the Stand Management Cooperative?

Mission:

To provide a continuing source of high-quality information on the long-term effects of silvicultural treatments and treatment regime on stand and tree growth and development and on wood and product quality.

Organization:

SMC membership includes forest industry; federal, provincial, state, and local agencies; suppliers; research institutions and universities who contribute resources and expertise in carrying out the mission. Scientists from member organizations meet in Silviculture, Nutrition, Wood Quality and Modeling Technical Advisory Committees (TAC’s) to develop research plans and the experimental design of field installations, define field measurement protocols, and review progress and results. A Policy Committee, composed of dues-paying members, approves budgets and votes on research plans and protocols recommended by the TAC’s.

Achievements:

Presently, the SMC database has 440 installations with 4503 plots containing almost 254,317 trees with 1.34 million measurements. Installations are periodically re-measured and occur in western Washington and Oregon and Vancouver Island, British Columbia. In addition to basic tree measurements, the database includes branch counts and diameters, soil and foliar analyses, surveys of understory vegetation composition, dead tree/snag information, and stem sectioning data. Examples of research activities include:

- A large scale study of processing plantation Douglas-fir into lumber and veneer which established important linkages between silviculture, log quality and product value.
- Modeling of branch and crown structure as affected by treatments.
Land Managing Organizations
B.C. Ministry of Forests
Boise Cascade Corporation
Bureau of Land Management
Campbell Group
Cascade Timber Consultants
Green Diamond Resource Company
Forest Systems Inc.
FORSight Resources, LLC
Hampton Tree Farms
Hancock Timber Resource Group
Lone Rock Timber Company
Longview Fibre Company
Mason, Bruce & Girard
Metropolitan King County
Olympic Resource Management
Oregon State Department of Forestry
Pacific Denkmann
Plum Creek Timber Company
Port Blakely Tree Farms
Quinault Department of Natural Resources
Rayonier Timberlands
Simplot SoilBuilders
TimberWest-Coast Timberlands
Washington State Department of Natural Resources
West Fork Timber Company
Weyerhaeuser Company

• Analysis of growth, stem form, epicormic branching, and occlusion of branches after pruning.

• A new regional growth and yield model: SMC-ORGANON.

• An analysis of tree and understory vegetation and diversity in young stands receiving different treatments.

• Evaluation of carbon sequestration in managed stands; the SMC is the Western Regional Site of the US DOE National Carbon Sequestration Center.

• The carry-over effect of fertilization into the growth and vegetation development of the next stand.

• The SMC maintains a website and produces publications, seminars and workshops to communicate the latest results to members.

Motivation for SMC Membership:
The long-term future of the Pacific Northwest forest industry depends on the productivity of the region’s forests and the choice of sound, cost-effective and environmentally responsible management regimes. Reliable estimates and projections are needed of how individual silvicultural treatments and treatment combinations affect stand growth and yield, product quality and value, and environmental concerns such as diversity habitat and carbon sequestration. The overall goal is to provide information and models that assist managers in making intelligent choices among management regimes to achieve desired wood yield and quality, investment, and environmental objectives.

The cost of establishing and maintaining long-term field research on the scale required to build an adequate regional database to provide managers with the necessary decision support is beyond the scope and capabilities of any single organization. This can only be achieved through a cooperative effort among landowners, manufacturers, research agencies and universities.

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