

## What is the Stand Management Cooperative?

The Stand Management Cooperative (SMC) is a cooperative effort of landowners, processors, research agencies, and universities. Headquartered at the University of Washington College of Forest Resources, the cooperative was formed to create a pool of funding, scientific talent, and long-term continuity necessary 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.

### SMC Organization

The 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 SMC mission. Scientists from member organizations meet in Silviculture, Nutrition, Wood Quality, and Modeling Technical Advisory Committees (TACs) 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 TACs. SMC's annual meeting is held in the Fall, followed by a semi-annual spring meeting and a series of meetings with each of the TACs periodically throughout the year. The SMC is also the Western Regional Site of the U.S. DOE National Carbon Sequestration Center.

### 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.

### Achievements

Presently, the SMC database has 435 installations with 4,427 plots containing almost 245,000 trees with 1.25 million measurements. Installations are periodically remeasured 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 that established important linkages among silviculture, log quality, and product value
- Modeling of branch and crown structure as affected by treatments
- 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 carry-over effect of fertilization into the growth and vegetation development of the next stand

- A Web site and publications, seminars, and workshops to communicate research results to SMC members

### **Future**

Research plans are developed by the TACs and approved by the Policy Committee. The research planning process identifies high priority research needs, develops proposals from the scientific research community, and selects the best of these proposals for funding.

## **Stand Management Cooperative**

### **Membership**

#### ***Land Managing Organizations***

B.C. Ministry of Forests  
Bureau of Land Management  
Campbell Group  
Cascade Timber Consultants  
Champion International Corporation  
Hampton Tree Farms  
Hancock Timber Resource Group  
King County Department of Natural Resources  
Longview Fibre Company  
Olympic Resource Management  
Oregon State Department of Forestry  
Pilchuck Tree Farms  
Plum Creek Timber Company  
Port Blakely Tree Farms  
Quinault Department of Natural Resources  
Rayonier Timberlands  
Simpson Timber Company  
The Timber Company  
Trillium Corporation  
U.S. Forest Service-Pacific Northwest Region

WA State Department of Natural Resources  
West Fork Timber Company  
Weyerhaeuser Company  
Willamette Industries

### ***Suppliers***

Agrium  
Chevron Chemical Company  
Coastal St. Helens Chemical  
UNOCAL

### ***Institutions***

B.C. Ministry of Forests, Research Branch  
Canadian Forest Service  
Forintek Canada  
Oregon State University  
U.S.F.S. Pacific Northwest Research Station  
University of British Columbia  
University of California, Berkeley  
University of Washington  
Washington State University  
West Coast Lumber Inspection Bureau

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SMC newsletters and fact sheets can also be found at:  
<http://www.cfr.washington.edu/smc/>