



## A summary of 2007 Winter SISCO Workshop

# Managing our growing stock in the midst of massive change

by Kathie Swift, Early Stand Dynamics Extension Specialist

Scenic Naramata Centre and the hospitality of the local wineries was the backdrop for this year's Southern Interior Silviculture Committee's (SISCO) Winter Workshop, held to explore the diverse changes facing the silviculture community now and in the future. Worker safety, workforce trends and labour shortages, the mountain pine beetle (MPB) and other forest pests, species selection, future markets, and climate change are just a few issues that the silviculture community is grappling with as they try and plan for the next generation of forests.

So what are some of the trends and options being put forward?

In the area of worker safety, the landscape is changing quickly in British Columbia, largely due to the BC Forest Safety Council's "Safe Companies Program." According to **Steven Mueller**, Director of Forestry Workforce Development, their goal is to have more than 4,000 companies (forest sector companies, contractors, and subcontractors) certified under this program by the end of 2007. More information is available on this effort by visiting their Web site at <http://www.bcforestsafe.org>

As the safety landscape is changing, so are the trends for both the existing and future silviculture workforce. **John Betts**, Executive Director of the Western Silviculture Contactors Association said there appears to be a shift in the existing workforce towards younger workers and a decline in returnees. This trend has significant implications for both safety and productivity since the task of training these new and younger workers falls on the shoulders of the experienced group. So why are experienced workers leaving the workforce? According to Betts, the consumer price index is going up while the planting rate is going down. With the rise of gas and tuition, the seasonal worker—typically students—cannot make enough money during the period when there is the highest concentration of work (May and June). The market for this type of work also appears to be flat, even with the widespread disturbance that is taking place on the

landscape and the resulting need for reforestation (Forests For Tomorrow Initiative). Betts suggested a number of options, including looking at expanding the window of employment, as well as enhancing dialogue between forest management organizations to develop a vision for the future.

**Steve Baumber**, a consultant to the Provincial Recruitment Task Force, echoed this downward trend for the number of forestry students expected to graduate in the future. According to Baumber, the forest sector will be competing against other sectors to attract a workforce from a pool that is consistently shrinking. Combine this trend with forestry's often negative image, and the future of forestry and forest management could alter significantly.

Discussions about changes in the workforce were followed by discussions about changes to our climate. **Dave Spittlehouse**, Senior Research Climatologist with the BC Ministry of Forests and Range, Research Branch said that our climate is always changing and will continue to change, and what humans are experiencing now is a change or variation in the normal range, or both. It appears that greenhouse gas emissions have created a change, the trends of which are superimposed on the natural cycles taking place in the climate. What does this mean? According to Spittlehouse, the earth's climate has always had unpredictable extreme elements associated with it, and greenhouse gas emissions mean these extremes will be even more extreme and equally unpredictable. Forest managers need to make decisions that will reduce their vulnerability to climate change.

More options for improved silvicultural decision making were presented in a breakout session led by **Greg O'Neill**, **Mike Carlson**, and **Dave Kolotelo**, all with the Tree Improvement Branch of the BC Ministry of Forests and Range. Some of the realistic options presented include: reducing rotation ages to cut growth and productivity losses over time, managing for short rotation hardwoods, or facilitating species and seedlot migration by planning for species/seedlots that may be more compatible

### Swift incoming Chair of SISCO

The Southern Interior Silviculture Committee (SISCO) has provided a vital forum for the exchange of information, ideas and dialogue about silviculture for more than 25 years. SISCO is a not-for-profit organization who's events are designed and governed by a volunteer executive comprised of key people in the British Columbia silviculture community.

**Kathie Swift**, FORREX's Early Stand Dynamics Extension Specialist, is the incoming Chair for SISCO.

For more information, please visit: <http://www.siscobc.com>

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climatically over time to the site on which they are currently being planted (climate-based seed transfer zoning). Of course, any options would have to be tested and fit within the existing legal framework before being applied at an operational level.

Further discussion on the potential shifts in species and changes in precipitation, and the importance of documenting and monitoring those changes, came about during an introduction to the updates on the Biogeoclimatic (BEC) Zones in the Kamloops and Nelson areas. According to **Dennis Lloyd**, Research Plant Ecologist with the BC Ministry of Forests and Range, Southern Interior Forest Region, there are now 16 BEC zones in this area of the province—which include three new alpine zones and 250 subzone variants. The increase in zones and subzones is, in part, due to an attempt to fill in the information gaps that were identified when the classification system was first developed. Draft field guide materials are available from an FTP site and Dennis can be contacted for more information ([Dennis.Lloyd@gov.bc.ca](mailto:Dennis.Lloyd@gov.bc.ca)).

**Lorraine Maclauchlan**, Forest Entomologist with the BC Ministry of Forests and Range, Southern Interior Forest Region, offered the latest report on the status of some of our various forest health agents and pointed out some trends for older stands. Defoliators such as the western spruce budworm appear to be shifting their range and moving into the Cariboo as well as moving up in elevation to target Douglas-fir, which is also expanding in range. Meanwhile, the populations of other defoliators such as the hemlock looper, are decreasing. We are all aware of the battles between bark beetles and pine—especially mountain pine and western bark beetles. However, the populations of other bark beetles, such as spruce bark beetles and western balsam beetles (specifically in the Okanagan) are also on the rise. An increase in the Douglas-fir bark beetle population appears to be linked to the stress on the trees caused by budworm defoliation and Armillaria root disease.

Younger- to mid-term stands are experiencing an increase in the leader weevil as normal temperatures increase and sites become warmer. Drought and climate change are also affecting young pine in terms of western gall and commandra rusts. The

good news is that younger stands do not seem as susceptible to MPB; however, this potential for an MPB attack increases once the stand turns 40.

**Alex Woods**, Regional Pathologist, BC Ministry of Forests and Range, Northern Interior Forest Region, followed Maclauchlan's report with a report on his work assessing free growing stands in the Okanagan Timber Supply Area to see if they are meeting existing expectations and assumptions—especially in the area of forest health. According to Woods, based on silviculture and inventory labels, the trend is to manage younger stands for more pine, thus reducing the number of spruce- and Douglas-fir-leading stands in this age group—this is particularly evident in the Montane Spruce (MS) and Interior-Cedar Hemlock (ICH) biogeoclimatic zones. From a forest health perspective, western larch is getting hit hard by Armillaria root rot disease, and in the ICH Zone specifically, there is evidence that 90% of all trees growing have Armillaria present. Again, with the expectant shifts in climate, what effect will Armillaria root disease, rusts, and the like have on future timber supply? What about species changes and shifts? What changes could we make in our management to lessen those effects? Once again, there are more questions than answers.

What can we expect to happen to the properties of pine wood following death from MPB attack? **Kathy Lewis** of the University of Northern British Columbia says it all depends on the mortality date and how far up the tree you are looking. In many cases, "moisture content problems develop within a few years from tree death; therefore, to stretch out the short-term timber supply, the focus should be on products that can tolerate dry wood and technologies that can increase cost/benefit ratios by using dry wood in existing products." (See Lewis and Hartley 2006, available on-line at [http://www.forrex.org/publications/jem/ISS35/vol7\\_no2\\_art2.pdf](http://www.forrex.org/publications/jem/ISS35/vol7_no2_art2.pdf)).

What are the trends related to the impact of MPB attack and salvage harvesting on stream flows? According to **Steve Chatwin** from the BC Ministry of Forests and Range, Forest Practices Branch, there may be issues related to flooding, channel stability, and fish habitat, but the effects depend on the characteristics of the watershed. (Chatwin's report can be downloaded from <http://www.fpb.gov.bc.ca/news/releases/2007/03.16.07.htm>).



# ensuring tomorrow's crop

Retired forester **Charley McKetta** raised the subject of market trends. As he pointed out, "there are only two kinds of forecasts: lucky and wrong." According to McKetta (Professor Emeritus, University of Idaho; Principal, Forest Econ Inc.) and his short-term projections, US inflation worries could raise interest rates (affecting the US economy), the housing bust is overdue, log prices appear to be temporarily depressed, energy prices are volatile, and the US Forest Service remains non-competitive. Further into the future, McKetta sees an excess of southern pine inventories causing regional shifts; an end to the glut in dead Canadian pine; the kicking in of Canadian environmental restrictions; and the expansion of biomass, fibre, and energy markets—all of which imply smaller, quicker "plantation silviculture."

So what is a silviculturist to do? According to McKetta, "quit growing

beetle food; re-orient investments to fibre and energy (shortened rotations and increased practices); diversify the portfolio of your forest (reduce risk—exercise new opportunities, multiple species/age classes/products, market timing opportunities); be 'asset' instead of 'forest' managers (sell ecological services, recreational uses, alternative land ownership and uses); and finally, be flexible!!!"

As we continue to deal with change within the forest environment as well as in the silviculture community itself, taking opportunities to meet face to face to network is important. With this in mind you are invited to attend the upcoming 2007 Summer SISCO field tour in Merritt. So mark your calendars to meet again in Merritt on September 10–12, 2007 and look for the specifics in future issues of *LINK*, or on the SISCO Web site <http://www.siscobc.com> 