Working Plan for Armillaria Silviculture Trial

1. Objectives:
   To determine a silvicultural method that will control Armillaria root rot.

2. Locations:
   Near Wilcox Lake, Young Lake and Greeny Lake. See attached maps.
   Map notations are 920-5-1673, 920-5-1674 and 920-5-1675.

3. Responsibility:
   Steve Henderson and Don Wright, Forest Health, 100 Mile House Forest District.

4. Plot Design and Stock Requirements
   The three areas for this study were harvested between 1978 and 1983. Armillaria was not identified in them until after harvesting. A 16 ha area within each of these cutblocks was chosen to maximize homogeneity for a study area.
   The 16 ha areas are divided into 12 plots of 1.3 ha each. These 12 plots will allow for 4 treatments (control sites inclusive) to be replicated 3 times each. The locations of each treatment in the study area will be determined randomly. The four treatments will include control plots; stumped plots planted with traditional species; stumped plots that will be raked and planted with traditional species; and plots where less susceptible species will be planted.
   Plots labelled 'A' will be control areas left as is. This will allow us to identify the effects of conventional logging compared to our treatment methods.
   Plots labelled 'B' will be stumped and then planted with traditional species. Old stumps of merchantable trees left after harvesting and stumps left from spacing will need to be pulled out of the ground. All stumps from the treatment will be windrowed. A John Deere 690ELC will be used to perform the task. Tree species traditionally planted on this site will be planted.
   Plots labelled 'C' will be stumped, raked and then planted with traditional species. Stumping will be performed by a John Deere 690ELC. Raking of the area will then be accomplished using an attachment to the end of the arm. Tree species traditionally planted on the site will be planted.
   Plots labelled 'D' will be different on each site. At the Young Lake site, trees will be planted with different species in alternating rows around the existing trees. At the Timothy site we will fill plant. At the Wilcox site there is enough variety in the regeneration that we will only have to brush the area. Proposed species that are less susceptible to Armillaria will be planted. The species will be limited to what we can obtain. I hope to include Larch, Birch, Ponderosa Pine, Lodgepole Pine and Douglas Fir.
   Site preparation will need to done during the summer season to ensure the roots do not break when they are pulled out.

5. Trial Stock
   Larch, Ponderosa Pine, Lodgepole Pine, Douglas Fir and Birch

6. Dates of Planting, Maintenance and Assessment
Plant: June '94
Maintenance and Assessment: Fall '94, Fall '95 and every 5 years in the fall ('00, '05, '10...)
-Final report in Winter 2014.

7. Summarize and Report
   Summarize data from second assessment and issue interim report Winter 95.
   Summarize data from 5 year data
   Summarize data from 20 year data and issue final report Winter 2014.

8. Report Distribution
   Cariboo Regional Library
   Cariboo Research Branch
   Cariboo Pathologist
   Nelson Pathologist
   Kamloops Pathologist
   Duncan Morrison, Forestry Canada
   100 Mile House, R.O. Silviculture and Timber
   100 Mile House, District Manager