To Observe the Growth Characteristics of an Intensively Managed Natural Lodgepole Pine Stand.

**Working Plan**

**Objectives:**

To document the growth behaviour of a managed, natural lodgepole pine stand, manipulated by the following treatments:

1. operationally spaced and pruned to 1150 sph;
2. as above, but with the stocking reduced to 750 sph;
3. as #1, but with the pruning extended to ± 5.5 m;
4. control, no stand tending.

**Discussion:**

Certain lodgepole pine stands, natural and planted growing on good sites, in the central interior of British Columbia, have the potential to respond in a very positive way to various stand manipulations.

Where a stand is free of disease and animal damage the response to spacing is dependent on the rate of crown closure, which is related to stand density.

Normally this response will be effective for about 10 years, after which diameter growth slows down. A further commercial thinning could be considered at this time. However, if the stocking was reduced further at age 20, this would eliminate the need for further stand entry.

Questions to be researched would include stand stability, and the maximum stand density for the desired results.
Methods:

A natural lodgepole pine stand at 17.5 on the Vama Road met all the requirements for intensive stand management. The area was logged in 1970, and left for natural regeneration. Prior to initial brushing and weeding in 1984 the stocking level was 3800 sph. After treatment the stocking was reduced to 2133 sph. A further entry was done in the fall of 1991 to space and prune the stand. Stocking was reduced to 1150 sph and pruning was taken up to ± 3 m.

In the spring of 1992, four 50m x 50m plots were established with the following treatments:

1. A control of the operational spacing and pruning;
2. as #1, but with the stocking reduced to 750 sph;
3. as #1, but with the pruning extended to ± 5.5 m;
4. control, no further stand entry after 1984.

100 trees in each block will be tagged.

Measurements:

All plots will be measured in the spring of 1993, for DBH, total height, height to live crown, and general health. Thereafter, remeasurement done at five year intervals.