DEPARTMENT OF FORESTRY · CANADA ·

Timber Talks

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PLANTING CHECK No. 6

Dependent upon economics, restocking forest land is often done by planting seedlings. The success or failure of the reforestation program is measured by the survival and development of the seedlings.

Planting stock is usually grown in nurseries and out-planted in local areas. Generally, the most vigorous seedlings have the best chance for survival and for maintaining a good rate of growth.

White spruce seedlings (2-0) and transplants (2-1) that were grown in coastal nurseries were planted on four sites near Prince George, B. C. and their survival and development compared to that of local undisturbed and transplanted wildlings of similar age.

Two years after out-planting, seedling and transplant mortality was negligible although somewhat greater amongst the coastal stock.

The year after out-planting, the height increment of transplanted wildlings was 47 per cent less than the increment of undisturbed wildlings. At the end of the second year the increment was only 15 per cent less. One year after out-planting, the height increment of 2-0 coastal stock was 40 per cent less than the increment in the year prior to out-planting; height increment in the second year after out-planting was only 4 per cent less.

Two years after out-planting, the total height of 2-0 and 2-1 coastal stock was 27 cm. and 25 cm. respectively; respective total heights of 3- and 4-year-old transplanted wildlings by the same date were 11 and 18 cm.; 5- and 6-year-old undisturbed wildlings attained a total height of 13 and 21 cm. respectively during the same period.

Considerable initial check in height increment is evident, which is attributed to planting. Normal growth rate can be expected to be resumed within two to three years after out-planting. White spruce stock raised in coastal nurseries seemed preferable to local nursery stock for planting in interior British Columbia.

REPORT: Survival and Growth of White Spruce Wildlings and Coastal Nursery Seedlings in the Interior of British Columbia. S. Eis, Forest Research Laboratory, Victoria, B. C.