IMPLICATIONS OF NO PRESTORAGE PESTICIDE ON LONG TERM STORAGE OF CONTAINER GROWN STOCK

Final Report
1985

J.R. Sweeten
TITLE: Implications of a pre-storage pesticide application on long term storage of container grown stock

Report prepared by: J. R. Sweeten

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TITLE: Implications of no prestorage pesticide application in long term storage of Container grown stock.

OFFICE 1/C: Sweeten, J. Nursery Admin. Officer - South Zone.

LOCATION: Pelton Reforestation Ltd. and Surrey Nursery

REGION/DISTRICT: Lower Mainland Nurseries, Prince George, Cariboo

Vancouver.

OBJECTIVE: To assess if Botrytis ssp or other storage moulds develop in above freezing storage for 5 months with container stock that is visibly clean at time of harvest and has had no prestorage fungicide application of captan - benlate.

WORKING PLAN: Note submission February 4, 1985. The only change is that the fungicide treated control for S/L S4004 was inadvertently shipped to freezer storage in the Cariboo Region.

RESULTS - Routine cold storage monitoring did not indicate any amount of visible storage mould development in untreated or treated spruce of fir container stock.

- Root growth capacity tests indicate no noticeable deterioration in above freezing storage when compared to other stock of the same species from the same facilities.

- The bio assay indicates all of the trees had necrotic cotyledon needles infested with Botrytis and other weak parasites. None of these fungi were actively growing but were viable when cultured.

DISCUSSION: - John Dennis, Technician, Nursery and Reforestation Pests, C.F.S., indicates there were no differences in the types of fungi between treated and non-treated stock.
- In view of the fact viable storage moulds were present in both treated and non-treated stock there is a concern that the potential for rapid development exists if satisfactory conditions exist. These mould development conditions can exist in any cooler unit due to inattention or mechanical malfunction.

- The objective stated in this report has been met on a trial basis. The writer has concerns about across the board implementation due to different storage conditions and different monitoring techniques.

CONCLUSION: - This trial demonstrated that the difference between use and non-use of fungicide is negligible in well controlled and monitored long term storage of container stock visually mould free at time of harvest. Consideration can be given to elimination of fungicide application on visually disease free stock where well controlled above freezing storage is available. It is also concluded that, to eliminate risk, and to avoid potential planter conflict, visually disease free container stock can be harvested without fungicide application where it is known the stock will be frozen stored, and will remain at that condition until immediately prior to planting.

RECOMMENDATIONS: - Further research investigation on the effect of mould elimination and control of Captan 50 w.p. 3.5 gm/L and benomyl 50 w.p. at 1.1 gm/L as a prestorage treatment.

- Elimination of pre storage fungicide applications only when visually disease free stock is known to be frozen stored until planting, or will remain in a well controlled, well monitored storage unit until shipment to the planting site.