1993 TRIALS - SAANICH TEST NURSERY

SUBJECT: ALTERNATE CONTAINER TYPES

Background

New containers for use in forest nurseries are produced occasionally by various companies. The function of some of these new containers is to improve lateral root growth in the plugs. Other new developments include blocks such as the 410 being produced for the B.C. market. An eastern Canadian product - Jiffy pellets - are receiving some attention in B.C. and trials are required to judge their possible use in B.C. An operational trial is required to compare the growth of seedlings in standard containers (313B and 415B) with some of the newer containers available today. This trial should show the advantages and disadvantages of growing in other containers - both in the nursery and in field outplanting. Since these various block types are not targeted to all species, there will be some variation in which species are tested in each treatment.

Trial Work Required

The list of proposed containers to test in this trial are:
1. Control - 313B (160 cavities/block, 65 ml/cavity) - Sw, Plt, Fdc, Cw
2. Control - 415B (112 cavities/block, 105 ml/cavity) - Sw, Plt, Fdc, Cw
3. 410A (112 cavities/block, 80 ml/cavity) - Sw, Plt, Fdc, Cw
4. First Choice Nature Root 415B - Sw, Plt, Fdc
5. Lannen Plantek 63F (63 cavities/block, 90 ml/cavity, hard plastic, vertical slits) - Sw, Plt, Fdc
6. Elvinco 313B prototype (hard plastic block with same dimensions as a styrobloc...with vertical slits) - Sw, Plt
7. Jiffy pellets #96 (78 cc.) - Sw, Plt, Fdc
8. Beaver Cedarblock - 313B - Cw
9. 415D (77 cavities/block, 170 ml/cavity) - Sw
10. Beaver 512 prototype - Sw

Seedlots: 
Sw 04205 B2\DGP\950m.\80% germ\516 s/g.
Plt 32587 B2\DSA\1150m.\97% germ\343 s/g.
Fdc 06943 A4\RVA\195% germ\99 s/g.
Cw 06754 A3\RVA\184% germ\830 s/g.

The blocks will be sown in February/March 1993 greenhouse grown at Saanich Test Nursery. Standard growing media (3:1 peat:vermiculite) will be used. Static height measurements will be taken throughout the growing season. The seedlings will be assessed regularly for differences in wet/dry cycles (using block weight sensors and tensiometers) and fertilization schedules adjusted accordingly. At the end of the growing season, samples will be taken and a morphological analysis conducted. Statistical analysis will be conducted on the results. Samples will be placed in cold storage and removed in February 1994 for root growth capacity testing. Samples will also be kept in cold storage for nursery field bed outplanting in the spring of 1994.