Sirococcus Treatment with Hot Water

Sirococcus is known to be a seed-borne fungus that requires fungicidal treatment of spruce and pine crops to eliminate the disease. Seed treatments with fungicides are generally hazardous, although trials at Surrey indicate Bravo applications on seed and germinants may not be harmful. Hot water seed treatment may provide a means of safely eliminating seed-borne fungi.

Experimental Design

Two spruce seedlots known to carry Sirococcus were chosen. These will not be stratified prior to treatment. After treatment, normal soak and stratification procedures will follow. Seeds should be sown in flats or PSB 211's to compare germination rates.

Seedlots to be sown are:
S (3030) 82F12/B3/1478/1.372 51%
S (3030) 82L2/B2/2456/1.524 75%

Treatment 1: control - 200 seeds. Standard stratification i.e. 24 hour soak, 3 weeks at 2°C.

Treatment 2: 200 seeds. Place dry seed in hot water at 50°C for 15 minutes. Follow standard stratification procedure.

Treatment 3: 200 seeds. Place dry seed in hot water at 50°C for 30 minutes. Follow standard stratification procedures.

Evaluation of Results

Germination rates will be compared to control. Control and treatments will be monitored for occurrence of disease.

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