

## Potential Role of Wound Pathogens in Manual and Mechanical Control of Woody Vegetation

**R.E. Wall**

**Forestry Canada, 506 West Burnside Road, Victoria, British Columbia, V8Z 1M5, Canada**

---

Several fungi which invade sapwood wounds of woody plants were tested as mycoherbicides to control regrowth from stumps or facilitate mortality when inoculated into intact trunks of weed trees. Tests were conducted in both greenhouse and field with *Chondrostereum purpureum*, *Coriolus versicolor*, *Cytospora chrysosperma*, *Haematostereum* sp., and *Inonotus lacteus* on many of the following: *Acer* spp., *Alnus rubra*, *Betula* spp., *Fagus grandifolia*, *Populus* spp., *Prunus pensylvanica*, and *Rubus parviflorus*. *Chondrostereum purpureum* has shown the most promise to date and has been applied as agar or whole oat grain cultures to wounds that were subsequently covered with parafilm or aluminium foil and as mineral or vegetable oil slurries of cultures grown on moist wheat bran. On treated stumps or trees, the fungus caused discolouration of the cambium. Also, adventitious shoots and small preformed branches that had not assumed apical dominance usually died. Treatment of complete frills was necessary to kill trees, as tangential movement of the fungus from partial frills was restricted. The fungus could be isolated from root crowns of inoculated trees but not from adjacent roots or physically connected trees. Basidiocarps of *C. purpureum* usually formed on inoculated trees or stumps within two years after treatment, after which they were replaced by other fungi.

---