

## Excised Shoots of Top-pruned Red Pine (*Pinus resinosa*), a Source of Inoculum of the Shoot Blight Pathogen *Diplodia pinea*

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**Abstract** – *Diplodia pinea* causes shoot blight and collar rot diseases that kill or otherwise render nursery pine seedlings unmarketable. *D. pinea* sporulates abundantly on needles and stems it has colonized and killed. Nursery managers sometimes top prune pine seedlings to reduce their height. In late summer 2005, *D. pinea* pycnidia were observed on excised shoots present in red pine seedling beds that had been top pruned earlier during that third season of growth. This prompted a survey of top-pruned beds at two nurseries to determine incidence and abundance of *D. pinea* conidia from excised shoots. At each nursery, excised shoots were collected from the seedling canopy in two subplots and adjacent alleyway ground surface in each of five beds (plots). A washing and filtration technique was used to quantify conidia extracted from colonized shoots. Excised shoots from both nurseries abundantly bore *D. pinea* pycnidia and conidia. Excised shoots collected from the seedling canopy yielded more conidia than shoots collected from the ground. Most conidia from shoots in the canopy and from the ground germinated on water agar. Species-specific PCR primers were used to confirm the identity of the pathogen. Removal of excised shoots from top-pruned pine nursery seedlings should be considered as a means to reduce inoculum in nurseries where *D. pinea* is present.

*Sphaeropsis sapinea*/ *Diplodia scrobiculata*

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