

Snow Pocket, a Triggering Factor for Scleroderris Canker Outbreak

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Abstract – Numerous tree diseases develop in the snow or under cold climatic conditions. The best known are the snow blights caused by *Phacidium* spp., and the brown and white felt blights caused by *Herpotrichia* spp. Scleroderris canker also needs cold conditions for its development. It is caused by the fungus *Gremmeniella abietina*. We report here on observations concerning the North American race. This disease is found mainly on red pine (*Pinus resinosa*) and jack pine (*Pinus banksiana*) in eastern Canada. Snow plays important roles in the development of the disease. First, it provides conducive conditions for the disease to progress into the shoots while trees are in a latent period; this fungus is still active at - 6°C. Another effect of snow is mechanical but relates to the previous one: the weight of the snow brings down branches and even makes whole trees bend down; thus, more shoots are in the snow where the pathogen can develop. Finally, the snow can trigger off an epidemic: it accumulates in greater quantities in topographic depressions, creating conducive conditions for several shoot infections to develop on a larger portion of trees on numerous neighbouring trees. All these infections raise the inoculum rate, creating a centre of infection in the plantation.

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