

Scotch, Red and Certain Other Pines (Pinus Spp.) Disorder: Needle Diseases--brown Spot and Lophodermium Needlecast / Gayle L. Worf / University of Wisconsin--Extension, 1974 / 1974

Pinus sylvestris or Waterer Scotch pine is a modest-sized cultivar, growing to 20 feet with a spread of 12 feet. It is a relatively slow-growing form and is more useful as an accent specimen than other, larger varieties. The Scots pine is monoecious, which means that it bears both male and female reproductive parts. When a Scots pine develops yellowing needles along a single branch, this may be a sign of a pine wilt disease, called *Cyclaneusma* needle cast. Consult an expert for confirmation, and remove the entire tree if it is infected, as this fungal disease is incurable. Western gall rust and *Lophodermium* needle cast are also common in some areas. A number of pests are known to affect Scots pine including: Pine spittlebug (*Aphrophora parallela*). *Lophodermium* needle cast was not observed during the study period. After the application of Beta-chikol, the concentration of salicylic acid did not increase. The application of Beta-chikol enhanced all growth parameters under investigation. The experiment compared 3 variants: pine seedlings protected with either chitosan or fungicides against parasitic damping-off and *Lophodermium* needle cast and unprotected seedlings. Seeds were sown on 8 May, 2013, because of excessive precipitation earlier in the year. Chitosan was applied in the form of Beta-chikol (Poli-Farm, Åowicz, Poland) as an organic plant growth stimulant. *Dothistroma* needlecast is a serious disease of a wide variety of pines, especially *Ponderosa* (*Pinus ponderosa*), Austrian (*P. nigra*), mugo (*P. mugo*), and lodgepole pines (*P. contorta*). Causes. *Dothistroma* is caused by a fungus called *Dothistroma pini*. Symptoms. *Lophodermium* is a disease commonly found on Scots (*Pinus sylvestris*) and red pines (*P. resinosa*). *Ponderosa* (*P. ponderosa*) and Austrian pines (*P. nigra*) are also susceptible. Causes. In March and April, brown spots or bands with yellow haloes appear on the previous year's needles. As the spots enlarge, the entire needle turns yellow and becomes brown by late spring. Defoliation is common on lower plant portions, often leaving only tufts of green current-season needles at the tips. In more-severe cases, the small blisters may merge to form larger blisters. Skin affected by dyshidrosis can be painful and very itchy. Once the blisters dry and flake off, which occurs in about three weeks, the underlying skin may be red and tender. Dyshidrosis tends to recur fairly regularly for months or years. When to see a doctor. In recent years, other diseases significantly affecting needles have also been identified in Latvia: *Diplodia pinea* (Desmo.) J. Kickx and *Dothistroma septosporum* (Dorogin) M. Morelet (Adamson et al., 2015). The occurrence of new pathogens as well as increased influence of the already present ones is expected in future. *Lophodermium* Needle Cast of Scotch Pine. In: P.B. Hamm, S.J. Campbell, E.M. Hansen (eds.) *Growing Healthy Seedlings: Identification and management of pests in northwest forest nurseries*. *Dothistroma* needle blight of Austrian and ponderosa pines: epidemiology and control. *Phytopathology*, 57, 437-441. 30. Rajkovic, S., Markovic, M., & Rakonjac, L. (2013).