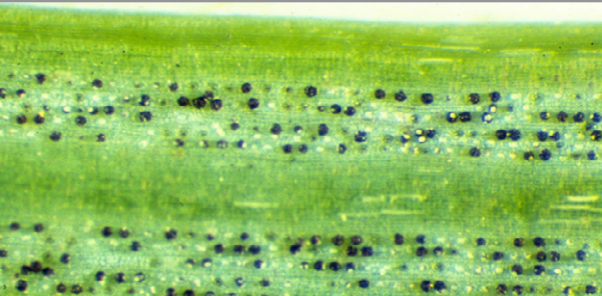
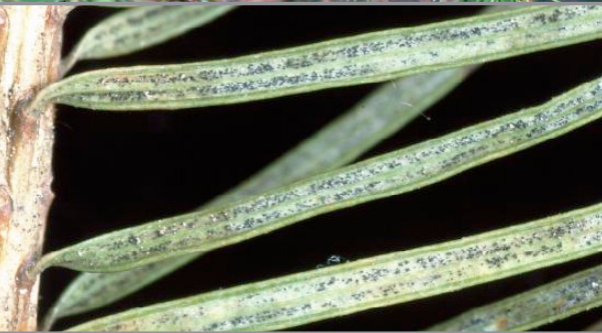


# Phaeocryptopus gaeumannii



# Phaeocryptopus gaumannii

Swiss needle cast (Engl.), russige Douglasenschütte (Deut.), ? (Franc.), ? (Ital.), Sajasti ospig duglazije (Sloven.)

## Host species

Douglas fir (*Pseudotsuga menziesii*).

## Symptoms

During the summer one-year and older needles show in patches, yellowish to brownish discoloration. In autumn and winter increased spill-brown needles of all years. The losses by third-year old needles are usually strongest. Needles are irregular and jagged. On the underside of a sitting or fallen needles arranged in numerous longitudinal stripes small black dots, the fruiting bodies of the fungus. In extreme cases, they form a dark, crusty layer. Infected needles can remain attached to the twigs for a long time, mostly shed only after 2-3 years.

## Causal agent

Common weak parasite of Douglas fir, often a consequence of or associated with frost damage, sometimes only following stand density (light deficiency, high air humidity). Reinfection of mostly young needles by spores which spread by wind and rain. The susceptibility of Douglas fir needles increases after a disturbance of the water balance. The disease sometimes occurred epidemic in the last past decades.

## Possibilities of errors

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## Effects

By normal infestation is no serious danger for the tree (infected needle is still able to assimilate). Heavy infestation results in significantly reduced Growth.

## Control

No curative measures recommended. Preventive measures: hygienic: thinning of plants, use of chemical compounds only in cultures or young stands, which are heavily infested: fungicide treatment as a prevention for the next season (repeated application). Proper c.