Cultural Characteristics of Polyporus amarus

W. Wayne Wilcox

Assistant Forest Products Pathologist, University of California, Forest Products Laboratory, Richmond 94804.

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ABSTRACT

Polyporus amarus was isolated from sporophores and from freshly cut decayed wood, but not from decayed wood which had experienced some drying. The cultural characteristics of the fungus are described. Phytopathology 61:592-593.

Polyporus amarus Hedgc. is the cause of the brown pocket rot in heartwood of incense cedar (*Libocedrus decurrens* Torr.). Microscopical changes in wood resulting from attack by *P. amarus* have been investigated (4). A study was also undertaken to determine whether or not the fungus could be isolated and cultured satisfactorily, and to examine its cultural characteristics and the extent of variation in these characteristics between isolates from different sources. Although a USDA stock culture of this organism (Beltsville 94377-Sp) is available, it has been suggested in the literature that the fungus was difficult to isolate and culture (1).

Polyporus amarus was isolated readily (on 2% malt-extract agar) from young and old portions of the context of immature and mature sporophores, and from tissue in and around decay pockets in heartwood from freshly felled and sawn trees. In contrast with results obtained by Hubert (1), attempts to isolate the fungus from freshly sawn heartwood of logs stored in an unsprayed deck for 1 year, and from samples which had been allowed to dry, were unsuccessful. This delay could account for the fact that it was difficult to culture. Little cultural variability was evident among all 13 isolates.

The cultural description, according to the procedure of Nobles (3), is as follows:

Key code: 1. 3. 7. 34. 36. 38. 47. 55. *Polyporus amarus* Hedgc. Chlamydospores present on vegetative mycelium, intercalary and terminal, remaining fairly thin-walled, approximately 7 by 11 μ; tests for extracellular oxidase negative on gallic and tannic acid agars after 1 week, "strong" (++++) (2) on gallic acid agar after 2 to 4 weeks, negative with gum guaiac; mats cream-colored changing to tan or brown when older; clamp connections numerous, branching from clamps very common (Fig. 1); formation of a fructification over the inoculum, consisting of a globular, compact mass of mycelium with a pitted pore surface, common after 6 weeks or after agar dried significantly; slow growing, with average growth of approx 1 cm diam/

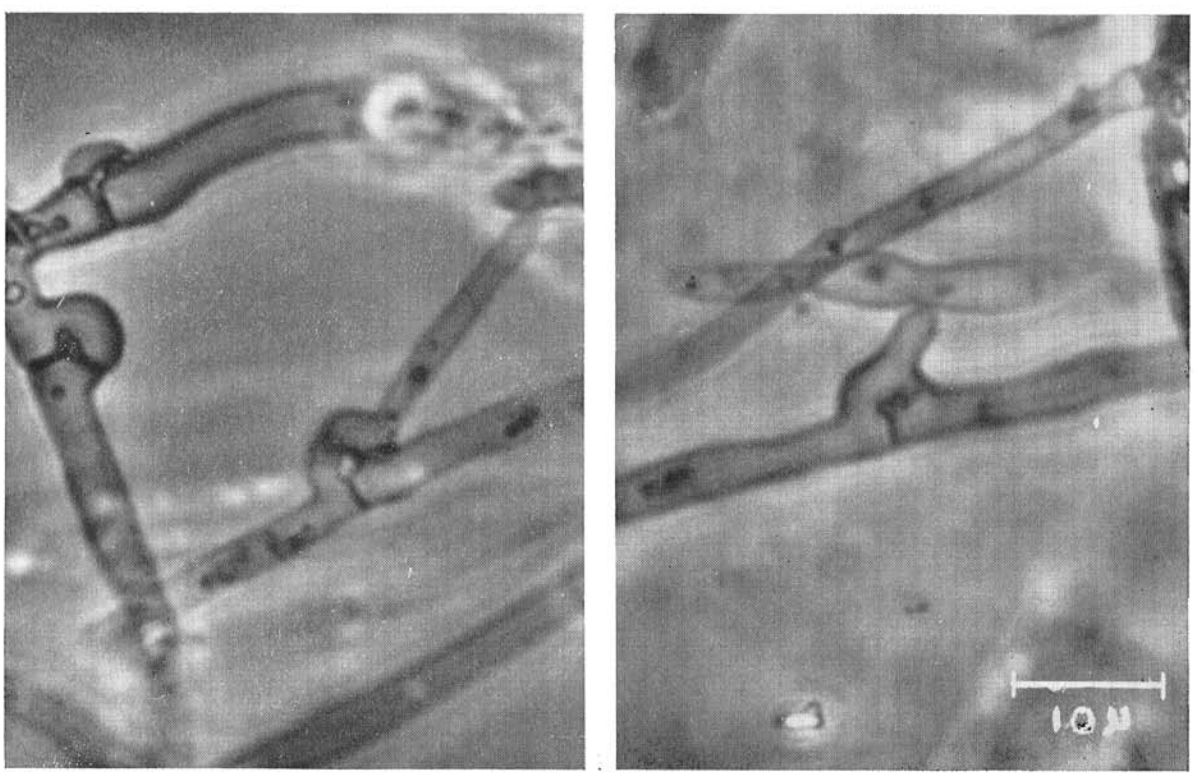

Fig. 1. Hyphae of *Polyporus amarus*, showing branches formed from clamp connections.

week, while many 9-cm petri plates were not covered even after 9 weeks; mat texture felty with margin appressed and often submerged.

LITERATURE CITED

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