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DECAY OF WOOD BY JELLY FUNGI

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The Dacrymycetales are a group of orange to yellow gelatinous fungi which grow exclusively on wood. These fungi have not been recognized as important wood decay organisms, despite their common occurrence on wood products in service. One species in particular, Dacrymyces stillatus, is extremely common on wooden fences and stairways in the Vancouver area.

Sixteen species of these jelly fungi were tested for their ability to decay wood blocks in the laboratory, using the soil block test. One of the most potent decayers was Dacryopinax spathularia, also common on wood products, which caused from 20 -35 percent weight loss on various woods in a 12 week period. Dacrymyces stillatus was not as strong, but still caused weight losses of up to 22 percent. The decay caused by most of the fungi tested was a brown-rot; the wood was shrunken, brittle, and discolored brown. The chemical nature of the attack was unusual for brown-rot fungi because significant amounts of lignin were removed along with the cellulose and hemicelluloses. Because brown-rot fungi are known to cause rapid losses in physical strength of wood, the presence of such fungi as Dacrymyces stillatus and Dacryopinax spathularia on wood products in service is cause for concern, and may be of economic importance. Ecologically, the species which occur on wood debris in forests may be important as well. Brown-rot fungi play a major role in the formation of humus and nutrient recycling in coniferous forests.