Alternaria alternata

As a species of the genus *Alternaria, Alternaria alternata* belongs to the family of black-pigmented moulds (dematiaceae). These moulds are characterised by their dark pigmentation due to melanin. The pigment melanin also accounts for the UV-resistance of these moulds, as the dark pigmentation very effectively absorbs harmful UV-radiation and consequently protects the organisms from fatal damage caused by the radiation. Consequently *A. alternata* has a worldwide distribution, and the pigmented spores (conidia) of this species can be found in many regions all over the world.

As a saprophytic organism, *A. alternata* can be isolated from decaying organic material, and is predominantly found in soil. Except for the wintertime conidia of *A. alternata* can be found almost everywhere in the air which accounts for the further distribution of this species by air currents.

Apart from being a plant pathogen, *A. alternata* plays also a role in biodeterioration, and can be isolated from building materials where it appears as dark olive spotting or staining.

The minimal growth temperature of *A. alternata* is about – 2°C to 5°C, the optimal growth temperature is 20°C and the temperature maximum is 32°C. *A. alternata* has a broad pH-spectrum and can tolerate pHs of < 2,7 and > 8,0.

Colonies of *A. alternata* are coloured olive brown (see. Fig. 1). Microscopic characteristics of this species are the large dark brown spores, which are divided into several cells by transverse and vertical walls (s. Fig. 2).

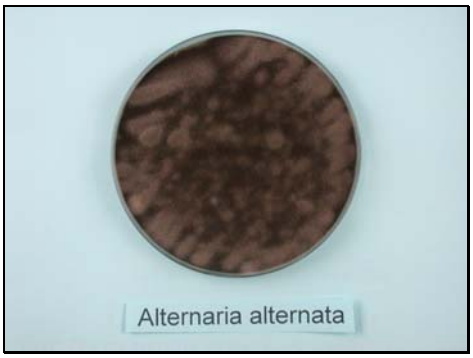

Fig. 1: *Alternaria alternata* (Sabouraud)

Fig. 2: Conidia of *A. alternata* (4000 x)

Katrin Steinhauer, Schülke & Mayr GmbH, 07/2004