

Chaetomium

Ascomycete.

Characteristics

Distribution

Approx. 80-150 species. Some species are thermotolerant/thermophilic and others are resistant to dry circumstances and UV radiation.

Where Found

Soil, seeds, cellulose substrates, dung, woody, and straw materials.

Mode of Dissemination

Spores are formed inside fruiting bodies. Spores are forced out an opening and spread by wind, insects, water splash.

Growth Indoors

Widespread, cellulolytic, very commonly found on damp sheetrock paper. Matures within 5 days.

Industrial Uses

Used in textile testing and the production of cellulase.

Potential Health Effects

Allergens

Not well studied. Type I and Type III allergies (hay fever, asthma), anaphylaxis, angioedema, (dermal swelling), urticarial (hives), or hypersensitivity pneumonitis and allergic sinusitis.

Potential Opportunist or Pathogen

Uncommon agent of onychomycosis (nail infection).

Potential Toxin Production

Chaetomin. Chaetomium globosum produces chaetoglobosins. Sterigmatocystin is produced by rare species. Other compounds produced (which may not be mycotoxins in the strict sense) include a variety of mutagens.

Laboratory Notes

Growth/Culture Characteristics

Grows and sporulates on general fungal media, may need 8-20 days for fruiting body production and sporulation.

Spore Trap Recognition

Distinctive. Chaetomium globosum has small brown "lemon" or "football-shaped" ascospores.

