

Ascospores

Spore category. Produced by morels, truffles, cup fungi, ergot, and many micro-fungi refers to sac-like structures known as an ascus.

Characteristics

Distribution

More than 3,000 genera.

Where Found

Saprophytes and plant pathogens. Found everywhere in nature.

Mode of Dissemination

Spores are predominantly forcibly discharged during periods of high humidity or rain.

Growth Indoors

The cellulolytic ascomycetes *Chaetomium* and *Ascotricha* are frequently found growing indoors on damp substrates.

Industrial Uses

Dependent on genus and species.

Other Comments

Some of the common asexual fungi such as *Penicillium* and *Aspergillus* produce sexual forms under certain conditions; these are classified in the ascomycete group and given distinct names. For example, the most common sexual forms of *Penicillium* are *Talaromyces* and *Eupenicillium*; the most common sexual forms of *Aspergillus* are *Eurotium* and *Emericella*.

Potential Health Effects

Allergens

Highly variable, dependent on genus and species. Poorly studied.

Potential Opportunist or Pathogen

Dependent on genus and species, but the vast majority do not cause disease.

Potential Toxin Production

Very many, dependent on genus and species.

Laboratory Notes

Growth/Culture Characteristics

While some ascomycetes sporulate in culture (*Chaetomium*, *Pleospora*), many are parasitic plant pathogens, and sporulate (grow) only on living host plants.

Spore Trap Recognition

Many ascospores are distinctive. Many others will be classified as "other colorless." In general, ascospores are recognizable by the fact that they have no attachment points and are sometimes enclosed in gelatinous sheaths or within a sac.

