

Alternaria General Information

The spores (conidia) of Alternaria are produced in chains. Alternaria belongs to a Division of the fungi called the Deuteromycota. The word means "neuter fungi" and they are called this because they have no sexual spore stage (meiospores). Acts as plant pathogen mainly to weaker plants

Alternaria Species Information

50+ species Ubiquitous, Cosmopolitan. Dry spore type, Airborne

Alternaria Scientific Information

As can be seen in the photo, however, Alternaria still produces spores. The nuclei result from mitosis and the spores are genetically identical (mitospores). The spores in Alternaria are multi-celled and pigmented and they are produced in chains or branching chains. The spores have a distinctive appearance that makes them easy to recognize. They are broadest near the base and taper gradually to an elongate beak. It is ID'd via air and direct sampling. Sometimes spores cannot be distinguished from Ulocladium species.

Alternaria Growth Characteristics

Alternaria species are cellulolytic (break down cellulose to glucose for energy) and commonly grow on dead plant materials, particularly cereals and grasses. Some species are also parasitic on living plants and cause early blight of tomato and potato in our region. When Alternaria attacks the host leaf, it produces a series of concentric rings around the initial site of attack. This gives a "target spot" effect that is associated with early blight.

In fall saprobic (=saprophytic) species of Alternaria, and another Deuteromycota species called Cladosporium, grow on senescent corn leaves and dead grasses and turn them black with spores. When the corn is harvested, the spores are released in black clouds above the combine to drift downwind for many miles. Alternaria species can grow on other sources of cellulose if free water is available.

It grows well on cellulose surfaces. Does not require significant amounts of water. It grows outside in soil, sewage, vegetation, plant debris, textiles, food stuffs.

Where is Alternaria found?

It can be found growing on wallpaper in the bedroom of a home. It grows inside and is common on many different substrates.

Is Alternaria Allergenic?

Since Alternaria is a seasonal fungus then this type of allergy would be more prevalent in the fall. Unless of course it's growing on your bedroom wall! Alternaria, fortunately, is not a common component of the home environment. Because it can sometimes be produced in the air in large numbers, susceptible individuals can become sensitized to the proteins on the spore surface and develop allergies. Some people may experience hay fever, asthma, Woodworkers lung or Apple store hypersensitivity.

Toxins Produced by Alternaria

The toxin Alternariol (used as an antifungal) produced by *A. alternata*. Other metabolites produced include AME (alternariol monomethylether), tenuazonic acid, and altertoxins (mutagenic).

Alternaria Health Effects

It can present any unique human risks (as pathogen, opportunist or contaminant). It can affect respiratory system, skin, nails. Presents greatest risk to immunosuppressed and wound injury individuals. Most species do not grow at 37°C (body temperature)

Alternaria Uses

In industry it is used to control noxious weeds and other plants

How to test for / identify the presence of Alternaria

It is ID'd via air and direct sampling. Sometimes spores cannot be distinguished from *Ulocladium* species.

Is Alternaria a "black mold"

No