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Spore Shooting Fungi

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There are a number of fungi that forcibly shoot masses of spores into the air. These spore masses can be found sticking to cars, sides of houses, foliage on plants, etc. This can cause confusion for people who may not know what these black spots are all over their property and plants.

Pilobolus, known as the “Fungal Shotgun”, is a rapidly growing fungus, which inhabits dung. It can fully develop within a week of spore germination. It is a member of the lower fungi and produces a sac-like structure called a *sporangium*, which contains the spores. This particular sporangium has a lens like vesicle with a light sensitive “retina” at its base. The fungus is positively phototropic causing the sporangium to be aimed towards any light source. Pressure builds up inside the structure, which supports the sporangium until it is more than 100 pounds per square inch. This causes the vesicle to explode propelling the sporangial head in excess of 2 meters. There is mucilaginous substance on the sporangium, which allows it to stick to whatever it lands on. This is when people who may confuse the hundreds of round, dark spots with scale insects or leaf spot disease notice them.

Sphaerobolus, known as the “Sphere Thrower” of the “Artillery Fungus”, is an inhabitant of old dung, as well as, wood chips. Sphaerobolus has a rounded fruiting body about 2.5mm in diameter. Inside is a spore mass (gleba) approx. 1mm in diameter covered by peridium. The peridium in Sphaerobolus has several layers. When the fungus is mature, the top splits open exposing the gleba. The lower peridium separates into 2 cups, which touch at the edges only. Pressure builds up in this area until the inner cup turns inside out throwing the gleba up to 6 meters toward the light. It will stick to whatever it hits.

Another group of fungi that can be found sticking to buildings and plants are known as the “**Birds Nest Fungi**”. This group is closely related to Sphaerobolus and is also associated with wood chips. The gleba is divided into several masses that resemble “eggs” in a deep cut shaped structure. The energy of raindrops falling into the cup is reflected by its funnel shape and rebounding water carries the spore masses out with it. A long thread, with a sticky end, is attached to the mass and this unwinds in flight causing it to stick to whatever it strikes.

Although all three fungi have spore masses that stick, they are all dispersed differently. The important thing to note, however, is that they are not of concern beyond being a curiosity or mild aesthetic problem. All of the stuck spores can be washed off or will disappear, over time, with rain.

If you do have a major problem with these fungi you could also try washing them off with a material known as “GooGone”. This can be purchased at a hardware type store. Treat a small area with this material to make sure there is no damaging affect. Another method for dealing with these fungi is to cover the mulch or wood chips with plastic during the time of greatest spore release.



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