



Artillery Fungus

Sphaerobolus sp.

Introduction

Many people are concerned by the tiny dark spots they find on their houses, cars, and plants. Often the spots are mistaken for scales. The spots may actually be spores from members of a group of fungi commonly called the "shotgun" or "artillery" fungi in the genus *Sphaerobolus*. These fungi colonize dung or other organic matter such as wood mulch, wood benches, wood sheds, etc.

Artillery fungi use an interesting mechanism to disperse their spores. Dark brown spore packets, called peridioles, sit on top of specialized cup-shaped cells which accumulate water and cell contents (Fig. 1) When enough liquid is accumulated, the cupped cells invert causing the cells to burst and propel the peridioles as high as 6 meters where they can adhere to new surfaces.



Figure 1: An artillery fungus spore packet within the cup. (provided by the Plant Disease Diagnostic Clinic, Cornell University.)

Signs

The fungi appear as yellow-brown to black, disk-shaped spots of about 1-2 mm. They can be found on nearly any surface due to a sticky substance (i.e. Mother Nature's version of 'super glue') covering the peridiole that allows for good adherence. The fungi are very sensitive to light and the spores are projected towards it, so they are frequently located on white and light-colored substances (house siding, white cars, etc.) or other bright, light-reflecting bases.

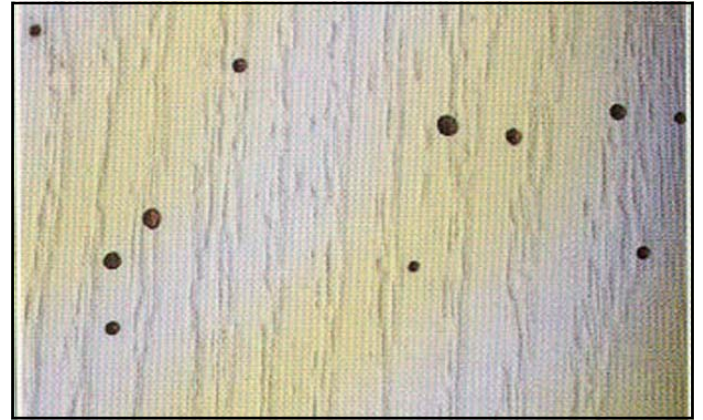


Figure 2: Artillery fungus spore packets stuck on the vinyl siding of a house. (provided by the Plant Disease Diagnostic Clinic, Cornell University.)

Management Strategies

Artillery fungus spores do not normally structurally damage the houses, cars, plants, etc. they cover. Removing the fungi is extremely difficult. Scrubbing and scraping with tools or washing with soap and water aids somewhat in removal; however, the use of tools or harsh chemicals may damage painted or otherwise colored surfaces. We frequently receive

questions asking if there is any fungicide registered to treat the mulch to kill this fungus. **At this time, we are not aware of any fungicides treatment registered for this use.**

Lately, the appearance of Artillery fungi has been associated with wood mulch (versus bark mulch) and the increased use of wood products in potting media. Composting of these products prior to incorporation into media is encouraged to prompt the growth of beneficial antagonistic organisms. Also, the use of gravel mulch, stone, pea gravel, and black plastic next to buildings instead of using wood products will help reduce the problem. If wood products are used, the addition of about 3 cm of fresh mulch to cover old mulch each year may lessen the problem. Use of bark products, rather than wood products, may also lessen the fungal spread.

One word of warning to homeowners wishing to replace house siding splattered by the Artillery fungus --- insurance companies may not cover claims of damage due to "molds".

For more information, Dr. Don Davis of Penn State Univ. maintains a web site of FAQs regarding the Artillery fungus. As Dr. Davis and colleagues have done some research on this problem, links to some research articles are also available through that web site.

See: <http://www.personal.psu.edu/faculty/d/d/ddd2/>

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