

Artillery Fungus

If you live in any part of North America that is not "arid", sooner or later you will experience Artillery Fungus. The primary signs of Artillery Fungus are groupings of little black specks that stick ferociously onto every surface they hit. They appear most often on white house siding, but can also appear on windows, decks, cars, and other light-colored surfaces around the house.

The culprit is a fungus that thrives on the decomposition of natural landscape mulches. It appears where there is organic, decaying natural mulch such as cedar bark (the ideal growth media for this culprit).

Sphaerobolus (commonly called either "artillery fungus" or "sphere thrower" fungus) forcibly ejects a peridiole (or speck) from the body of the fungi for a considerable distance. Peridioles can be projected vertically for more than 6 ft and horizontally for over 20 ft. Some researchers have even reported that the discharge is actually accompanied by a barely-audible sound! As with most fungi, growth is influenced by temperature, light, and moisture. When temperatures range between 50°F and 68°F and moisture levels are adequate, the fungus produces fruiting bodies (miniature plants). These structures usually form on the substrate medium (bark, dung, or decaying plant material) in autumn and spring and are quite small, approximately 1/10 inch in diameter. Because of their size, they are often very difficult to spot.

The mulch areas where Artillery Fungus growth is occurring may appear matted or gray and somewhat bleached in color. As the fruiting structures mature, they usually remain active or "shoot" for approximately 2-3 weeks. This is the reproductive method for this fungus, as the peridioles are being aimed towards the light. White siding on a home looks like a huge light source, and the peridioles are aimed at that target.

The peridioles appear as little black specks that are often assumed to be a grouping of fly specks or mildew spots on the siding of a home.

Adequate light and moisture are necessary for ejection or discharge of the peridiole. This ejection process is 'phototropic' meaning that the peridioles are projected 'toward the light'. This process creates enough force (1/10,000 horsepower) to propel the peridioles high into the air. Peridioles are typically quite sticky and, since they are forcibly ejected, readily adhere to objects they hit. When the peridioles dry, they become very difficult to remove. Unfortunately, *Sphaerobolus* can be long-lived and peridioles have been found to still be viable for up to 12 years. Peridioles are naturally dispersed by wind or over great distances on plant debris, mulch, animal fur, and even animal dung.

Traditional house-washing chemicals aren't very successful at removing these specks. At this time, the only effective method for cleaning these spores off of house surfaces is 1) to get to the spots within three weeks of emergence; and 2) using a very careful combination of high water temperatures and a high volume of water at approximately 2,500 PSI accompanied by scrubbing with a stiff brush.

NOTE: The number of spore spots that can be removed decreases dramatically in proportion to the time it has been adhered to the siding.

NOTE: Vinyl siding cannot stand up to the hot water needed to clean off the fresh peridioles.

Preventing further outbreaks is the best way to deal with this problem. Once the Artillery Fungus has made an appearance, the cure is to completely remove all bark and hardwood mulch from around the home. This includes removing a few inches of the topsoil underneath the mulch bed, as the spores can still grow in the soil. Replace the mulch with non-organic matter, such as decorative stone or rubber mulch products.

Caution during the cleaning process is necessary. Beyond the potential for damaging the surface you are cleaning, scraping the specks off and allowing them to land in a medium such as soil may set the stage for these spores to re-grow and start the cycle all over again.