



A Fun Guy To Be With

By Steve Kammerer, regional director, Southeast Region

November 4, 2016

Fungi exist all around us; most of them we never even see. Considering all the different fungi, very few cause turfgrass diseases. Even the most aggressive fungal pathogens require the right circumstances before they can overcome turfgrass defenses and cause disease symptoms. Often, disease-causing fungi are suppressed by beneficial fungi before they cause problems. Beneficial fungi can hinder pathogenic fungi via exclusion or, in some cases, by producing antagonistic natural chemicals that suppress disease-causing fungi.

Fungicides in the strobilurin class were discovered and synthesized by studying natural chemicals produced by wood-decaying fungi that are damaging to other fungi. Similarly, species of *Ceratobasidium* – a genus of fungi closely related to *Rhizoctonia* – can compete with and exclude pathogenic fungi like *Rhizoctonia solani*, the causal agent of brown patch or large patch. Orchid roots are even intentionally inoculated with *Ceratobasidium*, acting almost like an immunization against disease-causing fungi. *Trichoderma* is another commonly occurring genus of fungi that are used as a biological control or suppressant of other fungi.

Some fungi are also considered delicacies. Elm, ash and pecan trees often host mushrooms prized by gourmet chefs. Truffles and morels are the fruiting bodies of fungi that tend to be mycorrhizal



Waitea fungus isolated from turfgrass in this Petri dish culture (below) is inhibiting the growth of *Rhizoctonia solani* (above).

in nature, growing in association with trees. Some truffles are known as black gold for good reason, as 1 pound of truffles can command prices of \$300 to \$500 a pound.

So, before you crank up the sprayer, think twice about fungicides and why you are spraying them. You may be hurting beneficial fungi that are helping exclude the pathogenic ones.

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