How to stop fungi that infect, destroy crops? Target their ‘friends’

By itself, [the pathogenic fungus Rhizoctonia solani] is responsible for the turfgrass disease called brown patch, sheath blight within rice, root rot in sugar beets, and a host of other diseases found in soybeans, potatoes, and cucumbers, just to name a few.

And how damaging these effects are vary depending on the disease, ranging from killing just 25% of an infected crop to a full-blown 100% crop die-off. Rice farmers especially abhor this fungus.

[S]cientists in Florida, while studying the effects of R. solani on a patch of turfgrass, also looked into the bacteria that appeared to be involved in the soil whenever the fungus began growing. What they found was that bacterial species … [was] living endosymbiotically within the hyphae of the fungi.

R. solani causes damping off, blight,
and rot on common beans.

…

Some further experimentation whereby they eliminated the bacteria within a test subject fungi showed that, without its symbiotic bacteria, the fungi was not able to act at a 100% virulence level.

…

[A] possibility is to discover the specific genetics in how the bacteria is able to improve its symbiotic partner and potentially reverse this effect….
[Read the full study here]

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: Bacterial Symbiosis Discovery May Allow Dozens of Crop Disease Treatments