

Are You Eating My Crops? 11: Philippine dewy mildew

Philippine dewy mildew (*Peronosclerospora philippinensis*) is one of seven plant pathogens that is listed as a select agent by the CDC USDA because it has the potential to pose a serious threat to plant health. The 'Are you eating my crops?' series is almost over. Pests highlighted in this series have not yet been reported in Texas, but are on the 'Watch List' due to their high level of pest importance or risk due to host availability. So far, we have covered several different crop pests, damage, and appearance.

Peronosclerospora philippinensis spreads locally by water and wind through the transfer of spores from infected vegetation. The spread through infected seeds is possible, but only under specific environmental conditions. Symptoms appear on the leaves as long vivid green and yellow stripes or streaks. Downy gray to white fungal-like fuzz may grow on the leaf structure, primarily on the underside of the leaves. This downy covering is the primary site of spore production. As the plants age, the leaves become narrow, appear dried out and become abnormally upright. Corn is the main host, but oats, sugarcane, ornamental grass, and weeds also serve as sources of infestation under natural conditions.

There are other indigenous downy mildews, such as *P. maydis* and *P. spontanea*, that cause similar symptoms to plant host. Plant pathogens and various abiotic stresses can also cause similar symptoms in corn. Due to this, molecular identification is necessary to confirm the presence of *P. philippinensis*.

Philippine dewy mildew pathogen could become established in any area of the U.S. under conducive environmental conditions where the host plants are commercially grown. Texas sugarcane crops are especially at risk.

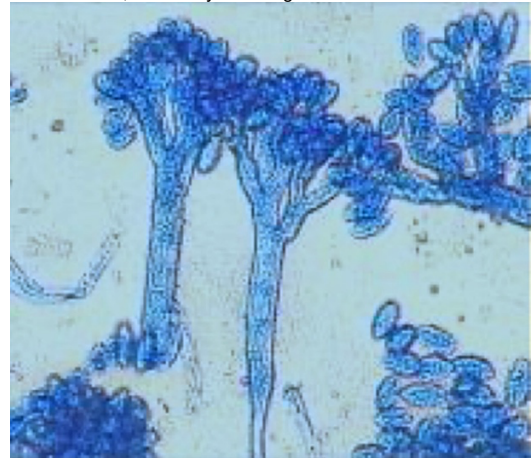
If you have question or concerns regarding the headlines, OR you believe you have identified a Philippine dewy mildew infestation, contact invasives@shsu.edu for further instructions.



Philippine downy mildew (*Peronosclerospora philippinensis*).
Credit: Bob Kemeraït, University of Georgia.



Downy fuzz on philippine downy mildew infested leaves. Credit:
Bob Kemeraït, University of Georgia



Conidia from *P. philippinensis*. Credit: Muis et al., 2016.