

**Yin, J.;** Koné, D.; Purvis, M.; Jackson, K.L.; Csinos, A.S.; and Ji, P. 2010. Soil amendments with *Brassica* cover crops for control of *Phytophthora* blight on squash. *Phytopathology* 100:S142.

*Phytophthora* blight caused by *Phytophthora capsici* has become an increasing concern in vegetable production in Georgia and several other states in the U.S. Cover crops that produce general biocides, such as mustard, collards, canola, and other *Brassica* species, were studied under greenhouse and field conditions to determine host status and evaluate the efficacy to suppress *P. capsici*. In greenhouse studies, disease incidence on squash was significantly reduced by soil amendment with mustard leaves or roots. Soil amendments with leaves of canola or carrot also reduced disease incidence significantly. In field studies, cover crops were grown in winter and incorporated into soil in spring and squash seedlings were transplanted after soil amendment. Mustard and canola provided the greatest disease reduction while radish and collards reduced disease to a lesser extent. None of the cover crops showed symptoms when leaves or roots of the crops were inoculated with *P. capsici* and most of the cover crops did not appear to be a host of the pathogen. The results indicated that some *Brassica* cover crops had the potential to inhibit *P. capsici* and suppress disease development on squash plants when used as soil amendments.