

## **Evaluation of QoI Sensitivity in *Aspergillus* spp. Section Nigri from Peanut Fields in Georgia.**

**B. S. JORDAN**, Dept. of Plant Pathology, University of Georgia, Tifton, GA 31793-5766; R. S. ARIAS, ARS-USDA-National Peanut Research Laboratory (NPRL), Dawson, GA 39842; and A. K. CULBREATH, Dept. of Plant Pathology, University of Georgia, Tifton, GA 31793-5766.

Crown rot, caused by *Aspergillus* spp. Section Nigri, is a highly destructive disease of peanut (*Arachis hypogaea*) seed and seedlings. Control of crown rot relies heavily on seed treatment with azoxystrobin, a quinone outside inhibitor (QoI). Loss of sensitivity has been reported in other pathosystems. Given the high dependence of azoxystrobin as seed treatment, *Aspergillus* spp. Section Nigri populations could be shifting to non-sensitive populations. In 2017, 288 isolates were collected from seed and seedlings across the state of Georgia. The field isolates were screened for the G143A and F129L mutations in the cytochrome *b* translated gene. Approximately 6 % of the isolates contained the G143A mutation and 40 % contained the F129L mutation. Isolates that contained either the G143A or F129L mutation were subjected to conidial germination assays. Isolates containing the F129L mutation showed reduced sensitivity while isolates containing the G143A mutation were completely insensitive. Data suggest a higher frequency of F129L mutations than G143A mutations in the populations in Georgia. Dependence on azoxystrobin as seed treatment may be selecting for the occurrence of F129L mutations, which can contribute to the reduced fungicide efficacy observed in the field. This work is part of a larger project that includes taxonomic identification of *Aspergillus* spp. Section Nigri isolates colonizing peanut seeds in Georgia and screening these isolates for the production of ochratoxin, mycotoxin produced by some *Aspergillus* spp. Section Nigri.