

## **Studies On A Sexual Stage Associated With *Colletotrichum gloeosporioides* f.sp. *aeschynomene***

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The fungus, *Colletotrichum gloeosporioides* f.sp. *aeschynomene* (CGA) causes an anthracnose of northern jointvetch, *Aeschynomene virginica*, and has been used commercially since 1982 as a bioherbicide in rice and soybean fields in Arkansas, USA. Recent experiments have shown that mature perithecia and fertile ascospores are produced as a result of crosses of CGA with a related anamorph, *Colletotrichum gloeosporioides* f.sp. *jussiaeae*, and heterothallic isolates of *Glomerella cingulata* (CRP) isolated from pecan, *Carya illinoensis*. Preliminary analyses of some *F*<sub>1</sub> progeny of CRP x CGA crosses have been completed. All *F*<sub>1</sub> isolates are avirulent to northern jointvetch and exhibit wide variation in pathogenicity to apple fruit. Molecular analyses of genomic DNA from parents and progeny probed with ribosomal DNA sequences indicate that while most *F*<sub>1</sub> isolates exhibit characteristics associated with one of the parent isolates, several *F*<sub>1</sub> isolates exhibit characteristics of both parents indicating sexual recombination. Work is continuing on the significance of the potential for outcrossing among anamorphic *Colletotrichum* species.

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