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The Potential for Asexual Genetic Exchange in *Colletotrichum gloeosporioides*

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The fungus *Colletotrichum gloeosporioides* is distributed worldwide and consists of numerous parasitic host-specialized forms. Several of these specialized forms have been used successfully as bioherbicides while others are under active investigation as potential bioherbicides. As genetically-modified fungal strains are developed with improved biological control capabilities, the potential for genetic exchange with related wild-type taxa in the environment will need to be determined to ensure compliance with regulatory requirements. *C. gloeosporioides* f. sp. *aeschynomene* (CGA) has been used as a model system to determine the potential for asexual genetic exchange in the environment. Various auxotrophic mutants were generated among strains within *C. gloeosporioides*. Strains with different mutations were paired on selective media and on host plants to determine somatic compatibility and the potential for nuclear exchange and genetic recombination through parasexual mechanisms. Results suggest that host-specific forms of *C. gloeosporioides* are genetically isolated by vegetative incompatibility factors and the potential for asexual gene exchange is limited.