

2248 Molecular characterization of *Fusarium oxysporum* f. sp. *vasinfectum* isolates from cottonseed imported from Australia into California for dairy feed

Dr. Jinggao Liu , USDA, ARS, Southern Plains Agricultural Research Center, College Station, TX

Dr. Alois A. Bell , USDA, ARS, Southern Plains Agricultural Research Center, College Station, TX

Dr. Michael Wheeler , USDA, ARS, Southern Plains Agricultural Research Center, College Station, TX

Dr. Robert D. Stipanovic , USDA, ARS, Southern Plains Agricultural Research Center, College Station, TX

Bell et al. recovered 17 *Fusarium oxysporum* f. sp. *vasinfectum* (Fov) isolates from cottonseed imported from Australia into California for dairy feed in 2003. These isolates and four isolates obtained from wilted plants in Australia by Kochman in 1994 are distinct from American Fov isolates in that they cause wilt following root dip inoculations, but not after stem puncture inoculations. We determined the genetic relatedness of these isolates with those found in the U.S. by sequencing fragments of the translation elongation factor 1-alpha (EF-1a) , phosphate permase, beta-tubulin genes, and mating type genes and by conducting phylogenetic and sequence analysis. One seed isolate, AustSeed 14, which is as aggressive as Kochman's isolates and vegetatively compatible with Kochman's isolates, belonged to race 3 lineage. Eleven of the 17 seed isolates also belonged to race 3 lineage and formed a vegetatively compatible group. One seed isolate belonged to race 1 lineage but is not vegetatively compatible with the U.S. race 1 lineage isolates.