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2007

Here is a 2007 summary that applies to both projects.

Transgenic peanut lines with a barley oxalate oxidase gene have been shown to have high levels of resistance to Sclerotinia blight of peanut.

These lines were produced through insertion of the gene into three Virginia-type varieties (Perry, Wilson and NC 7). After four years of field and greenhouse testing including 2007, petitions for deregulation and release of one transformed line of each variety are now being prepared for submission to APHIS, EPA and FDA to release the lines to the Virginia Crop Improvement Association. Trials in 2007 were conducted in Virginia and North Carolina. In both trials, Sclerotinia blight appeared first in plots of the non-transformed, parent varieties and disease was significantly higher at harvest than in the corresponding transformed lines. Although drought conditions in 2007 suppressed disease incidence, yields of some transgenic lines were increased significantly in the Virginia trial with more frequent irrigation. Tests in 2007 and previous years have shown that the transgenic lines are identical in growth habit, pod development, maturity, market traits, fatty acid profile and mineral content to their corresponding non-transformed parent. The transgenic lines for release have been advanced through eight generations to verify the stability of gene expression and the heritability of this trait for resistance to Sclerotinia blight.