A Genetic Comparison of Domestic and Chinese Varieties Resistant to Soybean Mosaic Virus. (C01ikenberry161756-Oral)

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Abstract:

Soybean mosaic virus (SMV) is one of the most problematic viruses that inflict soybeans wherever they are grown. The United States and China both have developed germplasm that is resistant to SMV. Since the development of these materials occurred independently, the U.S. and Chinese lines may contain seperate genes for resistance. Three resistant loci, Rsv1, Rsv3, and Rsv4, have been identified in the genotypes PI96983, L29 and V94-5152, respectively. The purpose of this experiment was to test the allelic relationships of three SMV resistant Chinese varieties, Ludou No. 10, GSTJQ and Qihuang No. 22 to the previously reported resistance genes. Each Chinese variety was crossed with the three genotypes containing the identified resistance genes and Essex, a susceptible cultivar. Segregation patterns were observed in the F2 and F2:3 populations to determine their allelic relationships. The data obtained thus far indicate that the Chinese resistant cultivars each contain an allele at the Rsv1 locus.

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