

Antibiosis of Maize Inbred Lines to the Carmine Spider Mite, *Tetranychus cinnabarinus*

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The antibiosis of ten *Zea mays* L. inbred lines to the carmine spider mite, *Tetranychus cinnabarinus* (Boisduval) (Acari: Tetranychidae), was evaluated. Two maize inbred lines previously reported as resistant to this spider mite and a susceptible inbred line were compared with B96 (formerly called 41:2504B), reported as being resistant to the two-spotted spider mite *T. urticae* and to the European corn borer (*Ostrinia nubilalis* Hübner). Other lines were derived from B96. All lines originated in the U.S.A. and were tested in Israel at two different growth stages. Four days after inoculation of detached leaf squares with adult mites, significant differences in susceptibility were observed among lines. At the 3-leaf stage lines B68, B96, B79, A619, B65, B49 and B64 reduced the average mite daily fecundity by 43%, 64%, 66%, 67%, 77%, 81% and 87%, respectively, as compared with the most susceptible line, B52. At the flowering stage, the average reduction in mite daily fecundity was much lower: inbred lines B64, A619 and B96 reduced the average mite daily fecundity by 48%, 51% and 86%, respectively, whereas the seven other genotypes had an intermediate or a susceptible reaction to the carmine spider mite, with A661 being the most susceptible. Our results show that B96 could be used as a source of resistance in developing improved resistance of inbred lines of maize to carmine spider mites.

KEY WORDS: *Tetranychus cinnabarinus*; carmine spider mite; antibiosis; resistance; maize.

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