Abstract

The objective of this work was to study the density of trichomes and hydrocarbons associated with the resistance by antixenosis of 42 subsamples of tomato plants from the Horticultural Germplasm Bank of the Universidade Federal de Viçosa (HGB-UFV) to Liriomyza trifolii. These subsamples were studied in addition to ‘Santa Clara’ cultivar, which was used as a standard of susceptibility to leafminers. The evaluated characteristics were the number of mined leaflets per plant, mines per plant, trichome density and chemical compounds in the leaves. Differences were detected among the subsamples in the variables studied. We identified 20 peaks in the chromatograms of leaf hexane extract the subsamples tested. The subsamples HGBs - 216, 813, 985, 987, 991, 992, 993, 1532, 1989, 1991, 2048, 2055, 2064, 2068, 2073, 2075, 2089, 2096 and 2097 were selected as sources of resistance to L. trifolii. The resistance mechanism associated to these subsamples was antixenosis. In addition, the low density of trichomes and the chemical compounds in the subsamples can be possible causes of pest resistance.

Keywords

Liriomyza trifolii, Solanum lycopersicum, germplasm, pest resistance.