

عنوان مقاله:

Exploring Wild Tomato Species for Morphological Traits, Mineral Elements and Known Disease Resistance Genes

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خلاصه مقاله:

Tomato is one of the worldwide major foods consumed fresh, cooked, or processed. Mineral elements, vitamins, and antioxidant content of tomatoes are of interest because of their nutritional value and beneficial health effects. The present study was performed to evaluate the macro- and micro-elements contents of leaves and fruits of seven wild tomato species, in addition to morphological traits. Wild tomato species had variations for all elements in fruits. Coefficient of variation was calculated for elements as ۱۸.۵۰ to ۹۴.۳۲% for potassium and phosphor, respectively. Most of the wild tomato species had higher content of all mineral elements than cultivated tomato. Resistance genes (Frl, I-۲, I-۳, Mi-۳, Pto Ty-۱, Ty-۳ and Sw-۵) of wild tomato species were screened using molecular markers. LA۱۹۷۱, with six resistant genes, and LA۱۳۹۳ and LA۱۷۷۷, with five resistant genes, were considered the most promising parental candidates for breeding. The results of the analysis of mineral elements of seven wild tomatoes species are useful for future tomato breeding.

کلمات کلیدی:

Mineral elements, Parental selection, Marker assisted selection, Molecular markers

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