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Efecto de Virus Fitopatógenos Sobre Características Agronómicas y Calidad del Ajo (Allium sativum L.), en el Estado de Guanajuato, México

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Abstract

Garlic (Allium sativum) is affected by a complex of different viruses. The objective of this investigation was to identify viruses in garlic plants from ten locations and to determine their effect on agronomic characteristics and quality of garlic. Bulbs from the variety Taiwan were collected from apparently healthy plants and plants with virus symptoms. Two independent experiments were conducted. In the first, one height, diameter, bulb weight, and number of bulbils per bulb were evaluated. In the second experiment, the same parameters were evaluated, but the overall plant health, plant height, number of leaves per plant, and virus symptoms were included. The frequency and relative concentration of Leek yellow stripe virus (LYSV), Onion yellow dwarf virus (OYDV), Garlic common latent virus (GarCLV), and Shallot latent virus (SLV) were also evaluated using the DAS-ELISA technique. The four viruses were present in all ten locations. The potyvirus LYSV and OYDV showed a frequency of 96.5 and 84.4%, respectively, while the carlaviruses GarCLV and SLV showed 87.5 and 81.0%, respectively. The results indicate that the viral complex present in garlic affects detrimentally the agronomic and quality characteristics of garlic in the ten localities were the study was conducted.

Keywords

Garlic mosaic, viral complex, yield, quality.



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