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RESEARCH ARTICLE

BACTERIAL AND FUNGAL PATHOLOGIES OF TOMATO (*SOLANUM LYCOPERSICUM* L.): STATUS OF THE DISEASES AND CONTROL PRACTICES OF FARMERS IN TOGO

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Abstract

Tomato (*Solanum lycopersicum* L.) is of great socio-economic importance. Unfortunately, its production is limited in Togo by fungal diseases and bacterial wilt caused by *Ralstonia solanacearum* (Rs). The objectives of the study are to establish the status of major tomato diseases in Togo and control approaches used by the producers. The methodology led to a field survey allowing the evaluation of the incidence of fungal and bacterial diseases of tomato and the identification of their endogenous control methods. In the laboratory, the isolation and identification of the pathogens responsible for these diseases were carried out. The results show that the major diseases of tomato in Togo were, spots, organ decay and wilting plants. The incidence rate of fungal diseases ranges from 18.8% to 75% (fields) and from 0% to 15% (plants). The pathogens responsible are *Sclerotium rolfsii* (7.5%); *Sclerotinia sclerotiorum* (1.5%), *Alternaria solani* (2.5%) and *Fusarium oxysporum* (4.38%). The incidence rate of Rs wilt is 100% (field) and ranges from 10% to 43.33% (plant). The PCR test revealed that the bacterium responsible for tomato wilt in Togo is Rs belonging to phylotype I, Séquévar 17. Synthetic chemical pesticides are used to control these pathologies, which is a problem for human and animal health and environmental protection. Chemical pesticides have been identified, 60% of which are insecticides and 30% fungicides. The study revealed improper practices in the management of pesticides in region covered by the research, leading to sanitary risks for farmers.

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