

MONITORING FIELD PATHOGENS AND STORAGE DISEASES OF SWEET POTATO IN THE SOUTHERN GREAT PLAIN REGION OF HUNGARY

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The introduction of sweet potato cultivation to Hungary in the last decade has left a gap in information regarding the fungal and bacterial diseases affecting domestic production. Consequently, this study aims to investigate field pathogens and storage diseases of sweet potatoes in the Southern Great Plain region of Hungary. The methodology involves culturing sweet potato tuber samples on selective media for bacteria and fungi, followed by DNA extraction from the resultant pure cultures. Molecular identification employs partial sequencing of the DNA gyrase alpha subunit (*gyrA*) gene for bacterial identification and the internal transcribed spacer (ITS 1-4) region for fungal identification. To date, we have isolated nearly a hundred bacterial and fungal strains from sweet potato tubers showing disease symptoms, sourced from various plantations. Recent efforts have focused on the molecular identification of fungal isolates, which include species of *Fusarium*, *Aspergillus*, *Geotrichum*, *Alternaria*, and *Lichtheimia*. Future work will aim at identifying bacterial isolates and continuously collecting diseased tubers from various stored sweet potato batches. Based on the data collected, we plan to develop a pathogen map for sweet potatoes in the Southern Great Plain region and compile a guide for farmers on sweet potato pathogens. The research is supported by the ÚNKP-23-3-SZTE-431 New National Excellence Program of the Ministry for Innovation and Technology from the source of the National Research, Development and Innovation Fund and to the Interreg VI-A IPA Hungary-Serbia Interreg Programme (grant number HUSRB/23S/11/027).