

RESEARCH ON THE PATHOGEN COMPLEX CAUSING SUGAR BEET ROOT ROT IN THE NORT-EAST OF MOLDOVA

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Abstract

The root rot diseases of sugar beet (*Beta vulgaris* L.) caused by a complex of pathogens includes *Rhizoctonia solani*, *Macrophomina phaseolina*, *Phoma betae*, *Aphanomyces cochlioides*, *Pythium aphanidermatium*, *Phytophthora drechsleri*, *Rhizopus stolonifer*, *Sclerotium rolfsii*, *Fusarium oxysporum*, *F. solani*, *F. avenaceum*, etc. The disease leads to significant economic losses associated with a decrease in root yield (up to 50-60%), a drop in the percentage of sugar and a deterioration of sugar juice purity (low white sugar recovery). Many of these pathogens also cause post-harvest losses in storage piles (up to 100%). Until now, there is no disease resistant cultivars and the pathogens causes beet root rot in hybrids of all breeding companies on the market. Heat and drought contribute to the spread of the disease. The fight against the disease is very complicated by the fact that the fungus, under certain conditions, switches to saprotrophic nutrition, thereby maintaining its population.

Key words: root rot, sugar beet, *Macrophomina phaseolina*