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Growing sugar beet for the future

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Rubbery taproot disease (RTD) severe threat for sugar beet production in Central Europe

Rubbery taproot disease (RTD) appearance and symptoms have been described in Bulgaria, Romania and Serbia more than 60 years ago. At that time disease symptoms were associated with abiotic factors (drought). Latest researches about RTD reveal that *Candidatus* Phytoplasma solani is the causing agent of the disease and the presence of the disease also in Croatia, Hungary and Slovakia. After declining of the plants, roots are prone to rotting due to the activity of saprobes. Symptoms and the progress of the disease differ depending on climatic conditions. The first symptoms usually start appearing by the end of July and beginning of August. In wet years yellowing of the oldest leaves and relatively slow progress of the beet deterioration can be observed on the edges of sugar beet fields. In dry years, because of the drought, oldest leaves are being discarded very fast and the first visible symptom of the disease is a loss of turgor in young leaves during the hottest part of the day. If dry conditions continue, all leaves become necrotic, which leads to the complete decline of the plant. Taproots of diseased plants wilt, become rubbery, and stay without any rot symptoms until complete plant decline. A yield loss in the same beet field varies spatially and is usually aggregated toward the edges. Epidemiological studies of the disease are in progress.