

Bananas Grown in Salt Affected Soil Impairs Fruit Development in Susceptible Cultivars

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ABSTRACT

Problem soils primarily affect plant growth through root either directly or indirectly with combination of osmotic and ionic stress. Banana is sensitive to salinity effect. Banana fruit development studies were undertaken in four banana genotypes, Saba (ABB), Ney Poovan (AB), Nendran (AAB) and Robusta (AAA) in salt affected soil (pH 8.1 and $EC_{1:2.5} = 3.1$). The study revealed that, the tolerant genotype Saba, could maintain the fruit development. The conversion of sugars into starch was not affected in the fruit. The salt susceptible banana cultivars Nendran and Robusta could not produce normal fruit development as it suffered from poor conversion of sugars into starch in the pulp. The Saba genotype seems to be effectively excluding the sodium salt at root or cellular level to maintain physiological functions of the plant.

Key words : Banana cultivars, Fruit growth, Ney Poovan, Robusta, Saba, Salt.