

Changes in biochemical parameters in healthy and root-knot nematode infested varieties of ridge gourd

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ABSTRACT : Ridge gourd (*Luffa acutangula* Roxb.) is important Cucurbitaceous vegetable and susceptible host crop facing considerable yield loss due to pest and diseases. The biochemical analysis was carried out in resistant, moderately resistant, susceptible and highly susceptible varieties of both healthy and root-knot nematode infested roots to know the accumulation and variations in biochemical constituents with regard to total phenols, total amino acids, reducing sugar and total sugar. The infested roots of variety Arka Sumeet (830 mg/g, 0.097mg/g) recorded significantly higher amount of total phenol and amino acids compared to healthy roots and all other varieties studied. Whereas, reducing sugar content was more in infested roots of variety Ridge gourd PN (15.00 mg/g) when compared to healthy roots (10.00 mg/g). Wherein, non-reducing sugar content was maximum in healthy roots of variety Ridge gourd PN (12 mg/g) compared to that of infested roots (9.00 mg/g) of same variety. Whereas healthy roots of Ridge gourd PN (9.50 mg/g) recorded more of non reducing sugar compared to (6.75 mg/g) in infested roots of same variety.

Key Words : Amino acids, phenols, ridge gourd, root-knot nematode, sugars and amino-acids.