



QUANTIFICATION OF VITAMIN C IN MULBERRY LEAVES

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ABSTRACT

Vitamin C was quantified in the leaves of mulberry at three maturity stages *viz.*, tender, medium and coarse from six different varieties *viz.*, V1, S34, S36, S13, G4 and K2 following dinitrophenyl hydrazine (DNPH) method. The vitamin content varied according to the age of leaves. Tender leaves recorded the highest vitamin C content in terms of dry weight followed by medium and coarse leaves. However, opposite trend in vitamin C content was observed in terms of fresh weight of leaves, being the lowest in tender followed by medium and coarse leaves. Leaves of G4 variety recorded the highest content of vitamin C (5.694 mg/g dry wt. & 1.707 mg/g fresh wt.) followed by V1 (5.224 mg/g dry wt. & 1.603 mg/g fresh wt). S36 variety stood third in vitamin C quantum by dry and fresh weight basis, respectively as 4.838 and 1.565 mg/g followed by S34 (4.589 & 1.555 mg/g), S13 (4.568 & 1.473 mg/g) and K2 (4.517 & 1.349 mg/g). The present study envisages the correlation of the vitamin C content present in mulberry leaves with the quantification method followed and also attempts to distinguish the most reliable technique to quantitate the exact vitamin C content present in the mulberry leaves fed to silkworms.

Key words: *Bombyx mori* L., quantification, vitamin C.