

Effect of 1-Methylcyclopropene (MCP) on the total antioxidant capacity, phenols and flavonoids of guava cv. Lucknow-49

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ABSTRACT : The 'poor man's apple' guava is a rich source of high-grade antioxidants such as Vitamin C, lycopene, carotenoids, polyphenols and flavonoids compared with other tropical fruits. The content of antioxidants in the fruit varies with the storage period, temperature and any pre-treatment given to it. To study the effect of ethylene action inhibitors and absorbents on the total antioxidant capacity of the guava fruits, they were treated with 1-MCP (Methylcyclopropene) @ 500 ppb and KMnO_4 @ 10 per cent and stored at different temperatures. The total antioxidant capacity and total flavonoids content increased during ripening and was high in 1-MCP treated fruits compared to control while, the total phenolic content decreased during ripening and remained maximum in untreated fruits, followed by 1-MCP treated fruits.

Key Words : Guava cv. Lucknow-49, total antioxidant capacity, phenols, flavonoids, 1-Methylcyclopropene.