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**THE EFFECT OF 1-METHYLCYCLOPROPENE ON THE RIPENING
OF TOMATOES (*Lycopersicon esculentum* Mill cv. Caraibo)
DURING POSTHARVEST STORAGE**

A PROJECT REPORT PRESENTED BY

ABDHUL MAJEED NIJAMUDEEN

to the Board of study in Plant Sciences of the
POSTGRADUATE INSTITUTE OF SCIENCES

in partial fulfilment of the requirements

for the award of the degree of

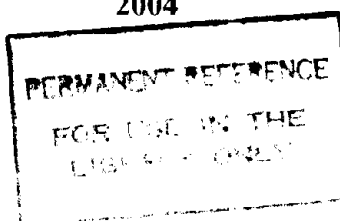
**MASTER OF SCIENCE IN POSTHARVEST TECHNOLOGY
OF FRUITS AND VEGETABLES**

of the

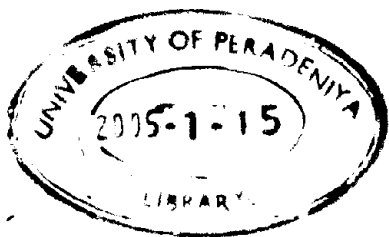
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Ripening of tomatoes held at $27\pm 2^{\circ}\text{C}$ in air was substantially delayed by exposure to 1-MCP in the concentration range $0.1- 5.0\mu\text{l l}^{-1}$ with extent of the delay directly related to the concentration of 1-MCP. Exposure to $0.1\mu\text{l l}^{-1}$ 1-MCP for 2h resulted in 100% increase in time to ripen (to reach the acceptable colour stage) and is considered a potential commercial treatment. 1-MCP treated fruit (1.0 and $5.0\mu\text{l l}^{-1}$) showed only 9% increase in time to reach acceptable firmness stage and there is no effect by 1-MCP on weight loss and Total soluble solids. In most of the time 1-MCP treated fruit showed loss of titratable acid on ripening. 1-MCP application on tomatoes (*Lycopersicon esculentum* Mill cv. Caraibo) for 2h at $0.1\mu\text{l l}^{-1}$ concentration resulted in an increase in postharvest life based on fruit appearance (colour). None of the 1-MCP treated fruit reached their full colour development and highest firmness score during their incubation period.