

**Title** Maturation physiology under modified atmosphere of 'Prata' banana treated postharvest with 1-methylcyclopropene

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### **Abstract**

The aim of this research was to evaluate the influence of 1-methylcyclopropene (1-MCP) and modified atmosphere packaging on the maturation of banana cultivar 'Prata' harvested in the maturation stage 1. Banana hands were treated at room temperature with 0 and 60 ppb 1-MCP in sealed plastic chambers of 0.19 m<sup>3</sup>, during 24 hours. Following the exposition to 1-MCP, a set of three fruits were packed in polystyrene trays and packed using Xtend<sup>TM</sup> film (Stepac, L. A., Israel) for modified atmosphere generation and kept under ambient (AA) and modified atmospheres (MA) at 15°C and 90±2% of Relative Humidity and room temperature (23±2°C and 85±2% RH). At each evaluation period, three replications (1 set of three fruit/rep) from each treatment were used. 1-MCP application delayed the onset of respiratory peak, also maintained fruit gloss and retarded the increase in the *a\** and *b\** values, which is a result of the also delayed transition from the green to the yellow skin color. However, the development of the skin yellow color was very irregular at 15°C storage. On the other hand, 1-MCP treatment resulted in a more intense skin yellow color development for fruits kept at room temperature.