The investigation of the effect of 1-Methylcyclopropene (1-MCP) on physiological change of rambutan cv. Rong Rien was study at 0 (control), 100, 500 and 1,000 ppb concentration. Rambutan at commercial maturity stage was used to fumigate with 1-MCP for 12 hr. and then kept at 13 °C. The results showed that treatment of 1-MCP delayed respiration rate, ethylene production, titratable acidity and ascorbic acid content change. Moreover, 1-MCP at every concentration also had trend to retard the browning occurred on rambutan peel.