

INTISARI

Perlakuan proses produk terolah minimal dapat mengalami penurunan mutu. Salah satu contoh penurunan mutu produk terolah minimal yaitu terjadinya pencoklatan enzimatis (*enzymatic browning*). Penanganan pascapanen produk terolah minimal untuk menghambat reaksi pencoklatan dan aktivitas enzim PPO yaitu dengan penambahan senyawa penghambat berupa Natrium Metabisulfit. Penelitian ini bertujuan untuk mendapatkan konsentrasi terbaik pada pemberian natrium metabisulfit sebagai penghambat reaksi pencoklatan dan aktivitas enzim polifenol oksidase (PPO) pada *fresh-cut* buah apel Rome Beauty. Penelitian dilakukan dengan rancangan percobaan faktor tunggal yang disusun dalam Rancangan Acak Lengkap (RAL). Percobaan yang diujikan terdiri dari berbagai konsentrasi Natrium Metabisulfit 500, 1000, 1500 dan 2000 ppm pada suhu ruang (28°C) serta suhu dingin (10°C) yang disusun dalam 10 perlakuan. Hasil penelitian menunjukkan pada perendaman Natrium Metabisulfit 2000 ppm pada suhu dingin (10°C) dapat menghambat pencoklatan dan aktivitas enzim polifenol oksidase (PPO) pada *fresh-cut* buah apel Rome Beauty sampai hari ke 10.

Kata kunci: *Browning*, *Fresh-cut* Apel Rome Beauty, Enzim PPO, Natrium Metabisulfit

ABSTRACT

The treatment of minimum processed product processes can run into quality degradation. One example of a quality degradation of minimum processed product is the occurrence of enzymatic browning. Postharvest handling of minimum processed products is to inhibit browning reaction and PPO enzyme activity, that is by adding inhibiting compounds such as Sodium Metabisulfite. This study aims to obtain the best concentration of sodium metabisulfite as an inhibitor of browning and activity enzyme polyphenol oxidase (PPO) in Rome Beauty's fresh-cut apples. The study was conducted with a single factor experimental design arranged in a Completely Randomized Design (CRD). The experiments tested consisted of various concentrations of Sodium Metabisulfite 500, 1000, 1500 and 2000 ppm at room temperature (28°C) and cold temperature (10°C) which were arranged in 10 treatments. The results showed that at 2000 ppm Sodium Metabisulfite in cold temperatures (10°C) could inhibiting browning and activity enzyme polyphenol oxidase (PPO) in the Rome Beauty fresh-cut apple until the 10th day.

Keywords: Browning, Fresh-cut Apples Rome Beauty, PPO Enzymes, Sodium Metabisulfite