

RINGKASAN

Penelitian ini bertujuan untuk mengetahui konsentrasi KMnO_4 dan jenis pengemas yang paling efektif untuk mempertahankan kualitas buah tomat, mengetahui jenis pengemas yang paling efektif terhadap kualitas buah tomat dan mengetahui pengaruh kombinasi KMnO_4 dan jenis pengemas terhadap masa simpan buah tomat.

Penelitian dilaksanakan mulai Maret 2017 sampai April 2017. Penelitian ini menggunakan Rancangan Acak Kelompok Lengkap (RAKL) faktorial, dan terdiri dari dua faktor. Faktor pertama adalah konsentrasi larutan KMnO_4 yaitu : K_0 : Kontrol, K_1 : 15%, K_2 : 20%, K_3 : 25%. Faktor kedua adalah jenis pengemas yaitu : P_1 : tanpa pengemas, P_2 : Plastik Polipropilen, P_3 : *Low Density Polyethylene* (LDPE).

Hasil penelitian menunjukkan konsentrasi KMnO_4 15%, 20% dan 25% tidak mempengaruhi kualitas tetapi mampu memperpanjang masa simpan buah tomat pada konsentrasi KMnO_4 20%. Jenis pengemas plastik polipropilen lebih baik dibandingkan dengan plastik *Low Density Polyethylene* (LDPE) dalam mempertahankan kualitas dan memperlama masa simpan buah tomat. Kombinasi antara KMnO_4 dan jenis pengemas hanya berpengaruh nyata terhadap variabel uji organoleptik warna.

SUMMARY

This study aims to determine the most effective $KMnO_4$ concentration on the quality of the tomatoes, knowing the type of packaging is most effective against the tomato fruit quality and determine the effect of combination $KMnO_4$ and type of packaging to the shelf life of tomatoes.

The study was conducted from March 2017 to April 2017. This study used a Completely randomized block design with three replications consisted treatments of two factors. The first factor were the concentrations of $KMnO_4$ solution: Control, 15%, 20%, 25%. The second factor were the types of packaging that is: without packaging (control), Polypropylene Plastics, Low Density Polyathylen (LDPE). The results indicated that $KMnO_4$ concentrations of 15%, 20% and 25% did not affect the quality but were able to extend the shelf life of tomatoes at a concentration of $KMnO_4$ 20%.

The results showed that $KMnO_4$ concentrations of 15%, 20% and 25% did not affect the quality but were able to extend the shelf life of tomatoes at a concentration of $KMnO_4$ 20%. polypropylene plastic packaging is better than the Low Density Polyethylene (LDPE) plastic in maintaining the quality and extend the life of the tomato. The combination between $KMnO_4$ and packing type only gives a real effect on the color organoleptic test variables.