

PENGARUH KONSENTRASI LARUTAN ASAP CAIR TANDAN KOSONG KELAPA SAWIT TERHADAP MUTU BUAH KELAPA SAWIT RESTAN

The Effect Of Liquid Smoke Solution Concentration Of Empty Palm Bunch On The Quality
Of Restan Palm Fruit

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Abstrak – limbah kelapa sawit adalah sisa atau produk samping yang dihasilkan selama proses pengolahan kelapa sawit. tandan kosong kelapa sawit mengandung senyawa kimia seperti selulosa, hemiselulosa, dan lignin yang dapat diolah menjadi asap cair. Penelitian ini bertujuan untuk mengetahui pengaruh perendaman buah restan dalam larutan asap cair dengan konsentrasi yang berbeda, serta mengetahui konsentrasi larutan asap cair terbaik terhadap mutu buah restan kelapa sawit. Penelitian ini termasuk golongan eksperimen dan menggunakan metode Rancangan Acak Lengkap (RAL), dengan taraf perlakuan penggunaan larutan asap cair tanpa dan dengan perendaman larutan asap cair 24 jam : buah restan (25%, 30%, 35%, 40%) dan 4 kali pengulangan sehingga diperoleh 20 satuan percobaan. Parameter pengujian meliputi kadar asam lemak bebas, kadar air, serta kadar kotoran pada buah restan yang sudah di aplikasikan larutan asap cair. Analisa data menggunakan ANOVA 5%. Apabila berpengaruh nyata pada perlakuan, maka dilanjutkan uji lanjut DNMRT (duncan's new multiple range test) pada taraf 5%. Hasil penelitian menunjukkan bahwa perlakuan pada perendaman larutan asap cair tandan kosong kelapa sawit berpengaruh terhadap kadar asam lemak bebas, tetapi tidak berpengaruh terhadap kadar air dan kadar kotoran. Konstrasi 40% terhadap mutu buah restan umur 2 hari selama 24 jam mendapatkan mutu terbaik dengan kadar asam lemak bebas sebesar 1,57% dan kadar air 0,45% serta kadar kotoran 0,02%.

Kata Kunci : Asap Cair, Buah Restan, Tandan Kosong Kelapa Sawit

Abstract – Palm oil waste is the residue or by-product produced during the palm oil processing process. Empty oil palm bunches contain chemical compounds such as cellulose, hemicellulose, and lignin which can be processed into liquid smoke. This study aims to determine the effect of soaking restan fruit in liquid smoke solution with different concentrations, and to determine the best concentration of liquid smoke solution on the quality of oil palm restan fruit. This study is included in the experimental group and uses the Completely Randomized Design (CRD) method, with the level of treatment of the use of liquid smoke solution without and with 24-hour liquid smoke solution soaking: restan fruit (25%, 30%, 35%, 40%) and 4 repetitions so that 20 experimental units are obtained. Test parameters include free fatty acid levels, water content, and dirt levels in restan fruit that have been applied with liquid smoke solution. Data analysis using 5% ANOVA. If it has a significant effect on the treatment, then the DNMRT (Duncan's new multiple range test) is continued at a level of 5%. The results of the study showed that the treatment of immersion in liquid smoke solution of empty oil palm bunches affected the levels of free fatty acids, but did not affect the water content and dirt content. The 40% concentration on the quality of 2-day-old restan fruit for 24 hours obtained the best value with a free fatty acid content of 1.57% and a water content of 0.45% and a dirt content of 0.02%.

Keywords: Liquid Smoke, Remaining Fruit, Empty Palm Fruit Bunches
