

TUGAS AKHIR

STUDI TIMBULAN, KOMPOSISI, KARAKTERISTIK DAN POTENSI DAUR ULANG SAMPAH DOMESTIK KOTA BUKITTINGGI

Oleh :

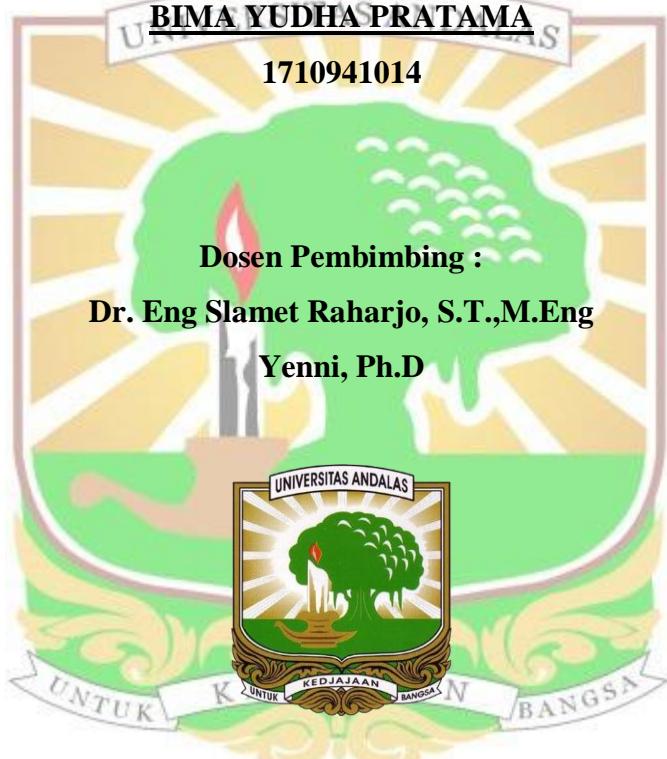
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ABSTRAK

Penelitian ini bertujuan untuk menganalisis timbulan, komposisi, karakteristik dan potensi daur ulang sampah yang berguna bagi perencanaan dan pengelolaan sampah di Kota Bukittinggi. Sampling timbulan dan jumlah sampling berdasarkan pada SNI 19-3964-1994 dan kegiatan sampling dilakukan selama delapan hari secara berturut-turut. Hasil penelitian timbulan sampah di Kota Bukittinggi pada tahun 2021 untuk timbulan sampah domestik dalam satuan berat 0,807 kg/o/h dan dalam satuan volume 2,528 l/o/h. Komposisi sampah domestik yang diukur dari timbulan sampah Kota Bukittinggi yaitu sampah makanan 33,76%, sampah logam/ kaleng 17,71%, sampah plastik 12,05%, sampah halaman 11,48%, sampah kertas 8,94%, sampah lain-lain 7,11%, sampah kaca 5,11%, sampah kain/ tekstil 3,4% dan sampah Covid-19 0,77%. Karakteristik fisika sampah domestik Kota Bukittinggi yaitu berat jenis sebesar 0,32 kg/liter dan faktor pemadatan sampah sebesar 1,3. Karakteristik kimia yaitu kadar air 22,25%, kadar *Volatile* 47,51%, kadar abu sampah 9,3% dan kadar *Fixed Carbon* 20,94%. Rasio C/N yang memenuhi pada kategori *High Income* yaitu 20,84% dan *Medium Income* sebesar 19,28%. Potensi daur ulang sampah domestik Kota Bukittinggi yaitu 62,58% dari persen total timbulan sampah kota Bukittinggi

Kata Kunci : komposisi, karakteristik, potensi daur ulang, timbulan sampah domestik, Kota Bukittinggi

ABSTRACT

This study aims to analyze the generation, composition, characteristics and potential of waste recycling which is useful for planning and managing waste in the City of Bukittinggi. Sampling of the waste generation and number of sampling were based on SNI 19-3964-1994 and the sampling activity was carried out for eight consecutive days. The results of the research on waste generation in Bukittinggi City in 2021 for domestic waste generation in units of weight are 0.807 kg/o/h and 2.528 l/o/h in volume units. The composition of domestic waste measured from the waste generation in Bukittinggi City is 33.76% food waste, 17.71% metal/can waste, 12.05% plastic waste, 11.48% yard waste, 8.94% paper waste , 7.11% other waste, 5.11% glass waste, 3.4% cloth/textile waste and 0.77% Covid-19 waste. The physical characteristics of domestic waste in Bukittinggi City 0.32 kg/liter in density and the compaction factor of 1.3. The chemical characteristics are 22.25% water content, 47.51% volatile content, 9.3% waste ash content and 20.94% Fixed Carbon content. The C/N ratio that meets the High Income category is 20.84% and Medium Income is 19.28%. The potential for recycling domestic waste in Bukittinggi is 62.58 percent of the total waste generation in Bukittinggi

Keywords: composition, characteristics, recycling potential, domestic waste generation, Bukittinggi City