Clove leaves can produce essential oil which quite important for Indonesian export commodities. Unfortunately, clove leaves tend to be discarded because they are considered as trashes even though they bring more economic value. In producing clove leaves oil, we need to improve methods and operating conditions in order to produce a clove leaves oil which is appropriate with SNI quality standards.

This research studies the comparison of extracting clove leaves oil by applying hydro distillation and steam-hydro distillation with microwave as well as studies the influence of used power (264 and 400 watt) and weight of clove leaves (50, 70, 90, 110 and 130 grams) to yield and quality of clove leaves oil. This research also studies the process that using water as solvent to extract oil in clove leaves with sampling the distillate in every 15 minutes. Vapor produced is condensed and the distillate that contains with the mixture of water and oil is separated by using separator funnel. The gained oil is purified by sodium sulphate anhydride (Na₂SO₄) to separate the oil from the water that left over.
From the result of research, we gain conclusion that the best result of clove leaves oil is obtained from hydro distillation by using microwave with 400 watt of the power used and 90 grams of clove leaves weight variable. This variable obtains 2.8349 % yield and eugenol composition 79.31%. The values of the clove leaves oil densities are 1.0420-1.0217 (g/ml) for hydro-distillation and 1.0435-1.0204 (g/ml) for steam-hydro distillation. The values of the clove leaves oil refractive indexes are 1.5331-1.5326 dan metode steam-hydro distillation berada pada range 1.5327-1.5312.

Keywords: leaves; clove; essential oil; hydro distillation; steam-hydro distillation; microwave.