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**A STUDY ON THE EFFECT OF STEAM UNDER DIFFERENT PRESSURES ON THE DISTILLATION OF LEMONGRASS
(*CYMBOPOGON FLEXUOSUS*)**

Lemongrass oil is extracted from the grass *Cymbopogon flexuosus* by heating the grass under (i) water, (ii) water and steam and (iii) steam. The extraction of oil is complete in the case of steam distillation, where super-heated steam under pressure is injected into the still holding the charges of grass for distillation. There is no information regarding the effect of steam under different pressures on the quantity and quality of oil produced. As these two economically important items deserve consideration, a study was conducted in the Lemongrass Research Station, Odakkali, to find out the effect "of steam under different pressures on the production of oil and the physico-chemical properties of the oil.

150 Kg each of lemongrass of the same age were distilled in a copper still by injecting steam under varying pressures viz. 20, 10 and 5 lbs. Four distillations were taken in a day under each pressure. The experiment was repeated for four days. The crude oil produced was collected and measured. The citral percentage of the oil was estimated by the sodium bisulphite method. The refractive index and specific gravity were also found out. The data are presented in Table 1.

Table 1

Mean yield of oil, citral percentage, specific gravity and refractive index of oil

Treatment pressure	Oil (ml)	Citral %	Specific gravity	Refractive index
20 lbs	540.0	89.5	0.8781	1.4818
15 lbs	498.8	89.3	0.8865	1.4814
10 lbs	387.5	88.0	0.8720	1.4815
5 lbs	440.0	87.3	0.8752	1.4816
F test	NS	NS	NS	NS

The results showed that there was no significant difference in oil yield and citral percentage by the extraction of the oil under different pressures. The mean yield of oil and the citral content were, however, higher at 20 lb pressure than at other pressures.

സംഗ്രഹം

വിവിധ സമ്മർദ്ദങ്ങളിൽ വാറ്റുന്നതു കൊണ്ട് പുൽതൈലത്തിന്റെ അളവിലെ അതിലെ 'സിട്രാൾ' raroousranltsano ഗണ്യമായ വ്യത്യാസം വരുന്നില്ല. എന്നാൽ തൈലത്തിന്റെ rairagajo 'സിട്രാൾ' അംശവും ഏറ്റവും കൂടുതൽ കണ്ടതു് 20 പൗണ്ട് സമ്മർദ്ദത്തിൽ വാറ്റിയപ്പോഴാണ്.

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