

ENVIRONMENTAL EFFECTS ON THE QUALITY OF STORED LEMONGRASS OIL

(*Cymbopogon Citratus* Hort.)

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ABSTRACT:

Storage of essential oils is one of the most important factors which affect the physical and chemical properties of these oils as well as their rate of deterioration. The effect of air, moisture, light and temperature on storage of lemongrass oil were studied.

The specific gravity, refractive index, acid number, ester number after acetylation and aldehydes of a steam distilled lemongrass oil increased gradually during long-term storage in dark, filled containers. When air was present in the storage container, the physicochemical changes in the oil were very rapid, so that the oil had clearly deteriorated at 180 days, and was unmarketable at 360 days.

Light accelerated changes in stored oil, particularly during the last 90 days of storage. Oil stored at $5 \pm 2^\circ\text{C}$ showed slower rates of changes in most physicochemical properties during storage.

Key Words : Lemongrass oil, Essential oils .