## 1. Summary.

Citronella oil samples drawn from the Colombo Pettah market in january 96 were analysed for kerosene ; it was revealed that all the analysed (six samples) grade II citronella oil which was selling at a lower price were adulterated at a level of 10-25%. However among the grade one oil among 7 samples analysed adulteration was rare and only one sample found to be adulterated at the level of 5%. These consignments of citronella oil were prepared in the bottles of capacities ranging from 175 ml-750 ml to be sold for local use. . Samples obtained from the large consignments ranging from 100 kg to few metric tons for exports are regularly analysed at the CISIR and it was found that during the course of 8 months only 2 samples were found to be adulterated with kerosene among the 138 samples analysed, the level was less than 2%.

Sep-pak cartridge clean up followed by GLC analysis can be recommended for the detection of kerosene in citronella oil (minimum detectable level 1%), when the samples are negatively answering to the solubility test with ethanol 80%, absence of kerosene could be confirmed. However If the answer is positive one can not rule out that the sample is adulterated with kerosene.. Solubility with 80% ethanol is recommended for the detection of petroleum hydrocarbon or fatty oils in cinnamon leaf oil ,bark oil, nutmeg oil, pepper oil ,cardamom oil etc., which permits detection even up to 0.1%.

Adulteration of cinnamon bark oil with synthetic cinnamic aldehyde was not completely ruled out ,as test methods available are still the classical methods of analysis which do not permit the detection below 5%. Analysis for the presence of traces of phenyl pentadienal, a by product formed during the preparation of synthetic cinnamic aldehyde is proposed for the detection of synthetic aldehyde in cinnamon bark oil.