

**SOME PRELIMINARY STUDIES ON THE PUNGENT PRINCIPLES OF GINGER  
(*ZINGIBER OFFICINALE*) GROWN IN SRI LANKA**

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The pungent principles of Ginger (*Zingiber officinale*) are present in the oleoresin. The oleoresin is used in substantial quantities in the food industry. In Sri Lanka the environmental and soil conditions are well suited for the cultivation of this rhizome, but the crop is yet to be commercially exploited probably due to the little attention that has been paid to the study of the more important constituents of the locally grown varieties.

Investigations were directed towards determining the optimum conditions for obtaining the oleoresin from ginger grown in Sri Lanka and studying the variations in the major pungent principles (gingerol and shogaol) under varying processing conditions.

The oleoresin was obtained from freshly ground dried rhizomes using ethyl alcohol (80% and 95%) and acetone by cold percolation and hot extraction. The optimum conditions have been determined. The yield of oleoresin varied between 5% and 11% (on a dry weight basis) depending on (a) variety (local or Chinese), (b) processing conditions (sun dried, oven dried osmotically dehydrated), (c) state of drying (whole, sliced, peeled, unpeeled, bleached) and (d) solvent used.

The gingerol and shogaol content of all samples of oleoresin obtained were estimated using a TLC/UV technique. The variations in percentages of gingerol and shogaol in relation to conditions of processing, etc., will be presented.