
Physical and Chemical Analysis of Fungal Deteriorated Groundnut and Sesame Oil

Ashok M. Chavan and Rajendra B. Kakde

Seed Pathology and Fungal Biotechnology Laboratory, Department of Botany, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad- 431 004 Maharashtra, India. E-mail:raj.kakde1584@gmail.com

Abstract

An investigation on physical and chemical parameters of biodeteriorated oil of sesame and groundnut was carried out. Great variation in the colour and odour of the biodeteriorated oils of groundnut and sesame were observed. Colour variation from bright yellow to golden yellow colour. *Macrophomina phaseolina* and *Fusarium oxysporum* rendered the groundnut and sesame oil respectively to rancidity. The saponification number of the sesame oil was found to be decreased due to *Alternaria dianthicola*. *Curvularia lunata* was found to be responsible for the decrease in saponification number of groundnut oil. Iodine number of sesame oil was decreased due to *A. dianthicola* and *C. lunata*. In groundnut oil, *Penicillium chrysogenum* drastically decreased the iodine number. Free fatty acid content of groundnut oil was decreased due to *A. dianthicola* and *Rhizopus stolonifer*. Peroxide value of groundnut oil was found to be decreased due to *Fusarium equiseti*, *Penicillium digitatum* and *M. phaseolina*. Free fatty acid (FFA) content in sesame oil was hampered by *M. phaseolina*. *Rhizopus stolonifer* and *Fusarium oxysporum* were responsible for increased peroxide value of sesame oil.

Key words: Biodeteriorated oil, physical parameters and chemical parameters

Citation: Chavan AM and Kakde RB. 2011. Physical and chemical analysis of fungal deteriorated groundnut and sesame oil. *J Mycol Plant Pathol* 41(2):303-307.