

Physicochemical properties and antioxidant contents of the roasted sesame oil during manufacturing

Jinyoung Lee* and Eunok Choe

Department of Food and Nutrition, Inha University, Incheon

This study was performed to investigate the physicochemical properties and antioxidant of the roasted sesame oil during manufacturing. Viscosity, free fatty acid (FFA) contents, peroxide value (POV), oxidation induction period, and contents of lignan compounds and tocopherols were determined in pressed, 1st filtered, clarified, 2nd, and 3rd filtered oils obtained during manufacturing of the roasted sesame oil. Viscosity of the roasted sesame oil decreased by pressing, 1st filtering, and clarifying; however, FFA contents of oils during manufacturing increased. POVs were not significantly different among samples taken during manufacturing of the roasted sesame oil. Oxidation induction period was the shortest in the 3rd filtered oil. During manufacturing, contents of sesamin, sesamol and tocopherols in the roasted sesame oil significantly increased with the highest amounts in the 3rd filtered oil, while sesamol contents decreased. This study suggests that filtration and clarification of the roasted sesame oil contribute to the oxidative stability of the roasted sesame oil despite free fatty acid formation, possibly due to antioxidant contents increase.

- * 담당자 : 이 진 영
- * Tel : 032-860-8129
- * 휴대전화 : 011-230-8848
- * Fax : 032-862-8120
- * E-mail : dudpss@nate.com