

## **INFLUENCE OF SOY OIL SOURCE AND SUPPLEMENTATION OF THE DIET WITH VITAMIN E ON PHOSPHOLIPID FATTY ACID PROFILES OF THE EGG YOLK**

Hossein Irandoust<sup>1\*</sup>, Grzegorz Kielbowicz<sup>2</sup>, Łukasz Bobak<sup>3</sup>, and Tadeusz Trziszka<sup>3</sup>

<sup>1</sup>*Department of Animal Sciences, Institute of Applied Scientific Higher Education of Agriculture, Isfahan, 8415683111, Iran*

<sup>2</sup>*Department of Chemistry, Wrocław University of Environmental and Life Sciences, Wrocław 50-375, Poland*

<sup>3</sup>*Department of Animal Products Technology and Quality Management, Wrocław University of Environmental and Life Sciences, Wrocław 51-630, Poland*

\*Correspondence Author: [hirandoust@yahoo.com](mailto:hirandoust@yahoo.com)

### **ABSTRACT**

An experiment (**Exp.**) was conducted to determine the influence of refined soybean oil (**SBO**), recycled soybean oil (**RSO**), and acidulated soybean oil soapstocks (**ASO**) and the effects of inclusion of vitamin E in diets containing 3.5% of these soy oils on yolk phospholipid fatty acid (**PLFA**) profiles of laying hens from 44 to 56 wks of age. In in this Exp. there were 6 treatments arranged factorially with 3 oil sources (SBO, RSO, and ASO), and two levels of vitamin E (0 vs. 250 mg/kg). Each diet was replicated 4 times and the experiment unit was formed by 5 hens caged together. The yolk PLFA profiles of the 3 experimental oils were determined in a mixture of 5 yolks from each cage as a replicate per treatment. The soy oil source did not affect the FA profile of the PL. The saturated FA (**SFA**) increased by vitamin E supplementation while polyunsaturated FA to SFA ratio was decreased ( $P<0.05$ ). Results showed the fatty acid profiles of the yolk phospholipid were hardly changed by soy oil source or vitamin E supplementation.

**Keywords:** soy oil sources, vitamin E, yolk phospholipid, fatty acid profiles



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