Liquid Chromatographic Dedection of Chlorogenic Acid (5-O-Caffeoylquinic Acid) in various potato (Solanum tuberosum L.) tubers: Light-induced and Short-term Storage Effects

Ö. Tokuşoğlu¹ (A) and Z. Yıldırım²

¹Celal Bayar University, Akhisar Junior College, 45200, Akhisar, Manisa, TURKEY.

²Ege University, Faculty of Agriculture, Department of Field Crops, 35100, Bornova, Izmir, TURKEY

ABSTRACT

In this research, the contents of 5-caffeoylquinic acid that is an major chlorogenic acid in some potato (Solanum tuberosum L.) genotips as Agria, Granola, Marfona, Concorde grown in Ege Area were determined by Reversed Phase - High Performance Liquid Chromatography (RP-HPLC) with diiodarray dedection. The total chlorogenic acid contents of 4 commercial cultivars were also determined. With the exposure of these commercial cultivars to three different conditions as dark fluorescent and day-light storage for up to 15 days, influences upon chlorogenic acid contents were investigated.

Keywords: Potato (Solanum tuberosum L.), chlorogenic acid (5-caffeoylquinic acid), HPLC.