

Protected Geographical Indication (PGI) is a European system, which is used to distinguish typical food products of some areas from the others in order to give economic advantage to the farmers from those areas. Lüneburger Heide potatoes are the brand of early table potatoes, which were grown in the Lüneburger Heide area in Germany. Since August 2010, the potatoes were accepted as PGI-product. Excessive land-use in the past causes the Lüneburger Heide area has low humus sandy soil and low nitrogen content (Official Journal of European Union, 2009), which make it possible to produce typical pale-skinned potatoes. Besides its pale skin, the consumer of these typical potatoes might also expect minimum undesirable color after-cooking. Therefore, after-cooking discoloration of Lüneburger Heide potatoes might be interesting to be investigated. Seven potato cultivars, Musika, Allians, Belana, Finessa, Red fantasy, Soraya and Toscana, were cultivated in two locations (Hammerstorf and Celle) that belong to Lüneburger Heide areas. Similar rate of fertilizer and cultivation methods were applied in both locations. Lightness value of boiled potato tuber was measured with Chromameter to represent degree of discoloration after-cooking, while chlorogenic acid, citric acid and iron content were also measured due to their influence to discoloration after-cooking. No significant differences of parameters in both locations were found. Significant differences among cultivars were found. Red fantasy seems to be the only cultivar in this investigation that has high severity of discoloration after-cooking with lightness value less than 78. High concentration of chlorogenic acid and iron content in the flesh of this cultivar with mean value $2.98 \text{ g kg}^{-1} \text{ DM}$ and 19.5 mg kg^{-1} respectively, could be the reason of its severity. With regard to its low content of chlorogenic acid, most of the cultivars seem to be suitable cultivars, which meet consumer expectation. The role of PGI in order to give economic advantage to the farmers and the quality evaluation of PGI products might be also implemented in developing countries to reach the same goal.