CHEMICAL ANALYSIS OF BLUEBERRY FRUITS (*VACCINIUM CORYMBOSUM* L.) FOR PESTICIDE RESIDUES IN THE MAČVA DISTRICT

Marković Stefan*, Robinić Jelena, Pavlović Nenad, Stošić Nemanja, Blagojević Milan

Academy of Applied Studies Šabac. Unite for Agricultural Business Studies and Tourism, Republic of Serbia
**e-mail: markovicstefaan@gmail.com*

Abstract

Quality and healthy nutrition is the goal of every consumer on the market. Blueberry (*Vaccinium corymbosum* L.) is a very healthy and attractive fruit, with high nutritional value and a rich content of antioxidants. Nowadays, producers are faced with the problem of the appearance of diseases and pests in their plantations, caused by a change in the climate, which favors the better development of fruit rot in the first place. The quality control of fruits that reach the market and in supermarkets is at a very demanding level, and there are only a few registered pesticides on the market that are used in blueberry protection treatments. Chemical analysis of fruits for pesticide residues is crucial when exporting blueberries to the European and world markets. In order for blueberry fruits to reach the market, chemical analyzes for pesticide residues must be carried out. As part of the analysis, blueberry fruits are tested for over 600 active substances, primarily active substances cyprodinil, azoxystrobin and fludixonil. Export is enabled only to those distributors whose fruits have passed a chemical analysis in which it has been confirmed that the pesticide residues are in the optimal amount. *Botrytis cinerea* has a major impact on fruit quality, where fruit infection during the growing season affects fruit quality after harvest. Correct and timely application of fungicides in disease control ensures the quality of the fruits, as well as the minimal risk of excessive amounts of fungicide residues on blueberry fruits. The aim of this research is to examine the content of pesticide residues on blueberry fruits, which were applied at different moments during the growing season. The results of the research will help agricultural producers in more efficient application of pesticides in their blueberry plantations, as well as the implementation of all measures to protect human health and the environment.

Keywords: pesticides, blueberry, quality, health