

CHEMICAL AND POMOLOGICAL CHARACTERISTICS OF FRUIT OF SOME COMMERCIAL PEAR CULTIVARS GROWN IN CONDITIONS OF BJELO POLJE

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Abstract

This study described some chemical and pomological traits of fruits in 14 commercial pear cultivars in the ecological conditions of Bjelo Polje (Montenegro) in period 2010 to 2012. The study focused on few segments. Very first one included recording of the chemical traits - dry matter, total soluble solids, pH, and total acidity. The other segment comprised pomological traits [fruit weight (g), fruit size (mm), fruit length (mm),] petiole length (mm)].

Dry matters was determined by drying at 105 °C. Total soluble solids was determined by refractometer. The acidity was measured by titration with 0.1 N NaOH [AOAC, [1]]. Fruit mass were determined by measuring by the electric scale Metler 1200. The result is shown in grams with the accuracy of 0.01g. Fruit dimensions - length and width were measured by Vernier scale.

The values for fruit dry matter ranged from 16.6% ± 0.39 to 18.08% ± 0.32, total soluble solid contents ranged from 11.99% ± 0.25 to 15.66% ± 0.42, titrable acid contents ranged from 0.31 to 0.55 %. The values for fruit weights ranged from 67.76 ± 3.26 g to 251.76 ± 6.36 g, fruit length ranged from 52.72 ± 1.07 mm to 110.2 ± 1.05 mm, fruit widths ranged from 47.75 ± 0.42 mm to 79.23 ± 0.63 mm, and petiole length ranged from 16.87 ± 2.05 mm to 40.33 ± 2.09 mm. Fruit size and contents of major chemical fruit components were compared with the results of other authors who investigated the same properties.

The differences found were slight and occurred due to differing climatic characteristics of the localities in which the studies were conducted.

Key words: Pear, Cultivar, Chemical characteristics, Pomological characteristics.