

The Effect of Foliar Fertilization upon Photosynthesis Process at Five Apple Varieties

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SUMMARY

Apples are very appreciated for their flavor and nutritional value being used all over the year in the human diet. Apples are rich in water: 77.80-88.50 g/100 g fresh fruit, sugar: 7.59-16.40 g/100 g fresh fruit, pectic substance 0.23-1.14 g/100 g fresh fruit, protein 0.18-0.72 g/100 g fresh fruit, mineral substances 0.10-0.42 g/100 g fresh fruit, carbohydrates (glucose, fructose, cellulose, hemicellulose). The organic acids (citric, malic, succinic, oxalic) are the most important components of the flavor of apples and they represent 0.3-0.5 %. The most important vitamins in the apples are: vitamin C (ascorbic acid, around 40 mg/100 g), provitamin A, B etc. Regarding the grown of apple consumption should be there are needed some measurements such as increasing of fruit production /ha in the existing orchards and increasing apple trees growing on another unused fields. In order to reveal the behavior during production process of several apple varieties over AGROINDUSTRIAL S.A. Cluj-Napoca tree-growing area, there has been organized a competition culture including five varieties of apple. Trees were planted in autumn 2005, at 3,5/0,9 m distance from one another, thus reaching a thickness of 3174 per ha. The apple trees varieties used in the experience were: Pinova, Granny Smith, Gala Imperial, Topaz and Jonica. Several aspects regarding trees-size and girth, phenology of flowering, yielding potential, fruit quality from the point of view of taste and chemical compositions (dry matter and sugar contents, acidity); then, feeding value and disease hardiness were taken under study.

Keywords: apple, orchard, fertilizers, production, quality, phenophase, minerals

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