

EFFECTS OF ETHEPHON APPLICATION ON COLOR DEVELOPMENT OF “GALA MUST” APPLES

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Introduction: Fruit peel color is an important quality parameter and marketing attribute that influences consumer acceptance (Larrigaudiere *et al.*, 1996). Red color development in apples is due to the formation of anthocyanin pigments in the apple skin. Anthocyanin production, and therefore apple color is influenced by a range of environmental and management factors in the orchard. Ethephon is a compound that slowly releases ethylene which in turn can stimulate anthocyanin accumulation in apples. Temperature during the preharvest period influences red color development, with the critical coloring period being two to three weeks before harvest (Curry, 1997).

Aims: To evaluate the influence of ethephon to the color development of “Gala Must” apple variety.

Materials and Methods: The study subject of the experience was Gala Must apple variety grafted on M 9. The trees were trained as slender spindles. The distance of plantation is 3.5 x 1.2 m. To study color development of the apple fruits were experimented the following variants of treatment: 1. Control – no treatment; 2. Ethephon – 300 ppm; 3. Ethephon – 400 ppm. Ethephon were sprayed 2 – 3 weeks before commercial harvest.

Results: The research was conducted during the period of 2013 year. During the research, it was studied the amount and average of fruits, tree production, quality, firmness of fruits, hydrolysis and color index. Color of fruit was estimated at harvest using a scale of grading described by Alina Basak.

Conclusion: In the present research work, we demonstrated that ethephon may be included in the system of color development on apple fruits, the dose of 400 ppm, applied 2 – 3 weeks before commercial harvest.

References

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