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EFFECT OF PENCONAZOLE PESTICIDE ON SOME INTERNAL PLANT CONSTITUENTS

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ABSTRACT

Pesticide residues could affect the ultimate consumers, especially when these commodities are freshly consumed. The present study aimed to estimate penconazole residue in grape and apple fruits to determine the effect of this pesticide on protein and carbohydrate of grape and apple fruits grown in the open field. The samples were collected one hour, one day, 3, 5, 7, 9, 11, 15 and 21 days after application. The residue of penconazole was decreased from 0.21 to 0.01 ppm in grape fruits after one hour and 21 days of application, respectively. While the initial concentrate of penconazole on apple fruits was decreased from 1.83 to 0.03 ppm in polluted fruits after one hour and 15 days of treatment, respectively. The protein content was increased from 2.93 to 3.23 % for grape samples. The same trend was observed in apple samples from 2.70 to 2.93 %. Fat content in grape and apple fruits were decreased by the pesticide application. Ash was increased under the effects of penconazole pesticide. The fiber content in grape increased from 3.64 to 3.65 % while the fiber content in apple decreased from 5.33 to 5.24%. Carbohydrate contents slight decreases after pesticide treatment.

Key Words: Apple – Carbohydrate- Grape–MRL- Penconazole – PHI – Protein -
Residues –RL₅₀.