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STUDIES ON THE EFFECT OF DIFFERENT BREAD MOLDS ON HEAVY METALS CONTENT FOR SOME BAKERY PRODUCTS

Abd El-Salam A.M., Hoda H. Hafez and Huseen G.H.

Food Technology Research Institute, Agricultural Research Center, Giza, Egypt

ABSTRACT

The interaction between food and metal bread molds can be a potential source of heavy metals such as aluminum.Aluminum toxicity is well recognized causes some diseases, such as Alzheimer's disease and some forms of sclerosis. In this study, aluminum and silicon levels were determined at three types of cake (control cake , milk cake and orange cake). The cake samples were baked in aluminum pan, aluminum foil pan and silicone pan . All samples were stored at different period (0 – 10 – 20 day) The maximum level of aluminum was 15.5 mg/kg in orange cake baked in aluminum foil pan after 20 day of storage especially, control cake during from 10 to 20 day . On the other hand the silicon level was mainly stable during storage time. According to the World Health Organization (WHO), the obtained aluminum values considered to be unacceptable. Then, excessive consumption of aluminum from leaching aluminum foil pan has an extreme health risk effects. We recommend, use silicone pans instead of aluminum foil pans or metallic aluminum pans in baking.

Key words: aluminum and slicon content of cake, aluminum foil pan, aluminum metal pan, silicone pan