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ACTUAL ISSUES OF MONITORING THE CONTENT OF SYNTHETIC DYES IN FOOD PRODUCTS IN THE REPUBLIC OF BELARUS USING MODERN ANALYTICAL METHODS

Palianskikh A [1], Belyshava L L, Fiodarava T A, Sychik S I and Shevchuk L M

Republican Unitary Enterprise "Scientific Practical Center of Hygiene", Belarus

Food dyes are widely used in the food industry to give products attractive appearance. Currently there are over 50 such food colourings of natural and synthetic origin. In the Republic of Belarus (RB) and in the countries of the Eurasian Customs Union (CU) 13 synthetic dyes are allowed to be used in the foodstuffs production. In accordance with the existing sanitary and hygienic requirements the content of each of these 13 substances is controlled and should not exceed 50 - 500 mg / kg depending on the nature of the dye and the foodstuff's type. At the same time it is completely forbidden to use synthetic dyes for baby food production. It should be noted that until now there are no uniform approaches for assessing the safety of synthetically produced dyes. As the result in some countries certain synthetic dyes are included in the list of banned substances as dangerous food additives, while in the others the same dyes are still used in food industry. Studies on the discovery of synthetic dyes impact on the human organism are continuing till now and scientists establish more and more new facts concerning the negative impact of some dyes on human health. In this regard, controlling the content of synthetic dyes in food products is an important and urgent task. Today in the Republic of Belarus and in the countries of the Customs Union there is no reliable analytical method which would allow determining all the regulated synthetic dyes in all kinds of food products rapidly and with appropriate repeatability and high accuracy. Thus the aim of this study was to develop a unified method for the simultaneous determination of 17 synthetic dyes in all kinds of food products by high performance liquid chromatography (HPLC).

Biography

Palianskikh Alena has completed her PhD at the age of 35 from Belarusian State University. She is a senior researcher of the Laboratory of Food Chemistry in Republican Unitary Enterprise "Scientific Practical Center of Hygiene", Minsk, Belarus. The sphere of her interests is analytical chemistry, extraction of organic compounds, chromatographic methods of analysis. The activity of the laboratory is aimed at control the quality and safety of food products produced in the Republic of Belarus and imported to its territory from different countries. She has published more than 10 papers in reputed Belarusian and Russian journals.

alena.ip@mail.ru