INVESTIGATION OF QUALITY OF DRY EXTRACT
ROOT OF GINGER

K. Rubanka, V. Terletskaya, A. Abramova

The article presents the advantages of vegetable extracts over fresh plant products and the advisability of using them in the food industry as a food fortifier of food, natural coloring and flavoring. These prospects use the root extract of ginger, as part of the food recipe to create a functional product. The quality of dry ginger extract obtained by fractional maceration using water as an extract was analyzed. Changes in the chemical composition of the dry extract in the process of its production are described, namely, 10% reduction in carbohydrates, 24% organic acids, 42% simple phenols, 45% ascorbic acid and complete loss of proteins, whereas flavonoids, tannins, vitamins P and B₂, on the contrary, increases by 7 – 40% in proportion to the source material used (dry ginger root). Analyzed changes in vitamins and minerals. A large increase in mineral substances is due to their resistance to high temperatures. The results of calculations of the nutritional value are given: for K – 154%, Na – 45%, Ca – 46%, Mg – 187%, Fe – 240%, Cu – 136%, Zn – 130% and maximum for Mn – 613%. For vitamins such as ascorbic acid, vitamin P and B₂, the nutritional value of dry ginger extract was 105%, 202% and 98%, respectively. The safety of the raw materials and the dry extract extracted from it in terms of the content of heavy metals and arsenic was established, and the results of studies of their changes in the production of dry extract of ginger root were presented.

Keywords: ginger, dry extract, food value.