INVESTIGATION OF PROPERTIES OF DEFATTED HEAT-TREATED FLOUR OF AMARANTH

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Amaranth (Amaránthus) is considered to be perspective raw material of the XXI century. It is more often used in the production of foodstuffs not only for mass consumption as a fortifier but also for producing special dietary products, in particular, glutenless. It is expedient to use defatted flour of amaranth that is produced by SIA “Zhytomyrbioproduct” (Ukraine) after extracting fat for medical purpose from crumbled grist with further milling to particles of 50–70 mkm.

Organoleptic indices, moisture, fat-binding and water-absorbing abilities of defatted flour of amaranth heat-treated at different temperatures were investigated. It was determined that while treating at the temperature of 120° and 140° during 10–40 minutes flour gains a darker colour (from cream to light beige) and pleasant nut flavour. Increase in duration and temperature of heat treatment in the range of the investigated modes results in reducing moisture of flour by 3,8…4,8 times and decreasing its fat-binding and water-absorbing abilities. At maximum values of heat treatment modes FBA is reduced by 8,7% and WAA – by 12,9%.

Keywords: amaranth flour, heat treatment, moisture, fat-binding, water-absorbing abilities, glutenless products.