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Physico-chemical characteristics of 50 samples of two wheat varieties - Sudarynia and Uzdym have been identified. The optimal modes of wheat grain germination by air-water steeping in the temperature range of 5-30 ° C on the basis of "activity growth" parameter have been determined. Emulsion and powder on the basis of germinated wheat obtained according to the developed modes have been investigated. Main quality indicators of the finished products have been determined and their potential in the manufacture of quality anti-aging cosmetics has been shown.

STUDY ON THE DEVELOPMENT OF RICE FUNGUS IN SUCROSE SOLUTIONS

T.I. Shingareva, A.A. Kupriets

A study was made of the development of rice fungus in a sucrose solution (2.0-8.5%). The dynamics of sucrose fermentation as well as metabolic processes of rice fungus was determined. Composition of culture medium and dynamics for the development of microorganisms in culture medium when sucrose solutions are fermented with rice fungus were found.

EFFECT OF NUTRIENT MEDIA COMPOSITION OF BREAD LEAVENS ON KEFIR FUNGI ACTIVITY

R.G. Kondratenko, M.N. Zaitseva

Microflora and biotechnological properties of kefir fungi as well as effect of nutrient media composition on acid accumulation in semi-finished bakery products have been studied. Microbial activity in various nutrient media has been analyzed.

SUBSTANTIATION OF RATIONAL PARAMETRES OF ENZYMATIC LACTOSE HYDROLYSIS IN DAIRY RAW MATERIALS

T.L. Shulyak, N.F. Gushcha

Lactose hydrolysis in dairy raw materials with the use of yeast β-galactosidase Maxilact LGi5000 enzyme preparation has been investigated. There have been determined rational parameters of lactose hydrolysis in milk for the production of low-lactose dairy products: enzyme dose, fermentation temperature and exposure time at this temperature.

SELECTION OF STARTER FOR A COMBINED FERMENTED DAIRY PRODUCT MANUFACTURING

T.L. Shulyak, N.F. Gushcha

A dose for cereal additive "7 cereals" used in manufacturing of combined fermented dairy product from baked milk has been determined. The influence of a various starter microflora on organoleptic and physico-chemical parameters of milk and cereal products has been studied. Starter ABT-2 used in manufacturing of fermented dairy product from baked milk was selected on the basis of a thermophilic lactic streptococcus, Lactobacillus acidophilus and bifidobacteria.

STUDY ON EMULSIFYING AND STABILIZING PROPERTIES OF STABILIZATION STARCH- BASED SYSTEMS

L.N. Mostovaya, L.G. Martynenko

A study was made of stabilization starch-based systems for the development of the technology of emulsion-type dessert products with the use of vegetable oil. Practicability of using starch flour paste- hydrolyzate systems as a stabilizer of emulsion structure of dessert products was substantiated. Process parameters for obtaining kinetically and aggregatively stable emulsions based on starch flour paste- hydrolyzate systems were determined.

INFLUENCE OF BARK OAK ON LACTIC ACID BACTERIA CULTIVATED IN LIQUID ACID-FORMING SEMI-FINISHED PRODUCTS

T.D. Samuylenko, T.A. Gurinova, E.A. Nazarenko

Influence of oak bark on the activity and quantitative composition of lactic acid bacteria of liquid rye leaven has been investigated. It has been shown that introduction of oak bark in the amount of up to 2.0% in nutrient media composition used in preparation of a liquid rye leaven makes it possible to regulate production time of the semi-finished product.

SELECTION OF OPTIMUM TECHNOLOGICAL MODES OF OBTAINING MALT FROM DIFFERENT TYPES OF BELARUSIAN SELECTION GRAIN FOR PRODUCING POLYMALT EXTRACTS

M.L. Mikulinich, E.M. Morgunova, S.L. Masansky

Optimal technological modes of obtaining malt for such crops of Belarusian selection as barley Fest, wheat variety Sudarynya, hulles oats variety Gosha, triticale variety Era, rye variety Zazerskaya 3 were established. Dependence of humidity of grain raw materials on temperature and time of steeping as well as that of the activity of hydrolytic enzyme groups on germination temperature and germination time at various germination modes was determined. Effect of drying temperature of freshly germinated malt on changes in the activity of hydrolytic enzymes and malt humidity was studied. It resulted in substantiation of optimal steeping conditions, germinating and drying modes for obtaining polymalt extracts. Assessment was made of malts quality in accordance with the developed modes. They are characterized by high quality.

INFLUENCE OF TECHNOLOGICAL PARAMETERS ON ACTIVITY OF BACTERIA CONCENTRATES MICROFLORA IN BAKING MEDIA

R.G. Kondratenko, O. I. Mihlyuk

On the basis of literature data there were selected bacterial concentrates which characteristics are similar to the technological parameters of white bread making.

Influence of technological factors on acid accumulation and activity of bacterial concentrates microflora in baking media was studied.

EVALUATION OF ECONOMIC EFFICIENCY OF THE PRODUCTION OF A THERMO ACID PROTEIN PRODUCT BASED ON FAT-FREE MILK

N.A. Pavlistova, T.I. Shingareva

Economic efficiency of the production and sales of thermoacid protein products manufactured on the basis of fat-free milk with increased solids content has been evaluated. Calculations of products cost depending on the composition of starting milk raw materials as well as acceleration of profit due to the increase in production are described.

APPLICATION OF ANALYTIC HIERARCHY PROCESS FOR THE DEVELOPMENT OF NORMATIVE PARAMETERS OF QUALITY AND SAFETY OF FUNCTIONAL FOODS

O. V. Zhulynska, B.A. Polovin, K. V. Svidlo

The problems of the application of analytic hierarchy process for the determination of quality and safety parameters of functional foods have been considered. A sequential application of the given methods is described by means of a comparative assessment of complex quality indicators which resulted in the development of normative quality and safety parameters for food products with functional status.

THERMODYNAMIC PARAMETERS DURING THE EXTRACTION OF ESSENTIAL OIL BEARING AND PHARMACEUTICAL PLANTS. ORIENTAL TOBACCO - CONCENTRATED AROMATIC PRODUCTS

V. Popova, S. Tasheva, S. Damyanova, A. Stoyanova

The thermodynamic parameters characterizing the extraction of tobacco leaves (Oriental type, grown in Bulgaria) for obtaining the commercially-ready concentrated aromatic products concrete and resinoid have been determined - Gibbs free energy, activation energy, entropy and enthalpy of the process.

MATHEMATICAL MODELING OF GERMINATED DRIED UP GRAIN GRINDING

V.A. Sharshunov, A. V. Evdokimov, A.E. Pokatilov, V.N. Popov

The problem of constructing mathematical models for combined drying and grinding of high-moisture raw materials in the dryer-disperser is considered. It has been shown that when grain is dried and ground simultaneously, the processes that have different physical natures do not allow to create a unified mathematical model of dried up grain grinding. For example, drying processes conform to the laws of mass transfer and grinding ones are described by the equations of fracture mechanics. It is suggested to study the combined process by means of graph theory which makes it possible to divide

the processes in time and carry out their comparative evaluation. Mathematical models are suggested both for drying in swirling flows and for grinding grain. Their relationship has been also shown and calculations on a number of quantitative indicators of combined drying and grinding of germinated grain in the dryer-disperser have been performed.

DEVELOPMENT OF ECONOMIC POTENTIAL OF PROCESSING ENTERPRISES OF AGROINDUSTRIAL COMPLEX

E. V. Volkova

Theoretical foundations for the formation and development of economic potential of enterprises are considered and extended in the article. Basic elements of the economic potential such as resources, mechanism for an effective use of resources, ability to meet the market needs taking into account the interaction of internal and external factors are established. Goals and strategy for the development of processing agricultural enterprises, structural elements of the potential and external conditions influence the formation of their economic potential.

CULTURAL, EDUCATIONAL AND SOCIAL ACTIVITIES OF THE OFFICIALS OF THE BELARUSIAN PROVINCES IN THE SECOND HALF OF XIX - BEGINNING OF XX CENTURIES

A.D. Kuzmin

The article reports about the participation of public servants in the establishment and functioning of professional, cultural, educational, sporting, charitable and other associations and unions in Belarus in the second half of XIX - beginning of XX centuries. For the first time in the national historiography on the basis of archival documents and works of Belarusian ethnographers an organizational structure was revealed, tendencies of the development as well as main directions of the activities of public associations, clubs and meetings in the Belarusian provinces were shown . The materials under investigation can be used in the study of social and cultural history of Belarus as well as in the history of the state and law.