

Improving energy efficiency of production

Editorial devoted to the main theme of the issue.

General challenges and opportunities for reducing energy consumption in production of meat products at industrial plants are discussed.

Innovative energy-saving technology for processing fat wastes and animal- origin fat raw materials into alternative biodiesel fuel

I.M. Chernukha, D.G. Gorokhov, M. I. Baburina

Specialists from VNIIMP selected solid alkaline and acidic catalysts for intensification of processes for esterification of free fatty acids (FFA) and transesterification of triglycerides into monoalkyl esters, namely, biodiesel fuel. The use of such innovative low-toxic chemicals increases environmental friendliness of production of liquid biofuel from animal fats and allows to manufacture a more pure product.

Key words: animal fats, biodiesel, transesterification, monoalkyl esters, alcoholysis.

Energy-saving process of fine grinding

O.V. Soloviov

In a 65-liter cutter with rotation speed of the knife shaft 3,000 rpm, with six knives established on the shaft in pairs, the second and the third knife planes are not involved in grinding of meat and rotate idly. The author offers a constructive solution that allows to use all cutting planes, while reducing power consumption.

Key words: cutter, cutting plane, cutting speed, angle of attack.

Recommendations for assessment of stability and adequacy properties of manufactured meat products with respect to established requirements

A.A. Semenova, V.V. Nasonova, G.P. Goroshko, A.A. Motovilina

The paper presents recommendations for evaluation of accuracy and stability of the technological process by one indicator and adequacy of indicators of manufactured meat products with respect to established requirements. The recommendations can be applied during the audit process to assess adequacy of the supplied raw material, non-meat ingredients, food additives, as well as stability and adequacy of parameters of the process or its individual stages by indicators for which requirements were established in NiTD or other documents.

Key words: technology audit, adequacy of meat product properties, single indicator, statistical characteristics, adequacy of product.

Regularities of freezer storage of meat and meat products

V.M. Stephanovsky

It is shown that during freezer storage logarithm of the shelf life of meat and meat products varies with temperature linearly and is determined by the depth of technological processing.

Key words: meat, meat products, shelf life, freezer storage

Technology for increasing shelf life of cooked-smoked sausages at high positive temperatures of storage

A.A. Semenova, A.A. Motovilina, L.I. Lebedeva, L.A. Veretov

Results of experiments on increasing the shelf life of cooked-smoked sausages are described. In calculating recipes the reduced dosage of sodium chloride 2.5% was used, while production of cooked-smoked sausages, manufactured according to the classical technology, provides for the use of salt in amount of 3%. Mass fraction of salt in the finished product was reduced from 5 to 3.5%.

Key words: cooked-smoked sausages, Baksolan, heat treatment, vacuum packaging, pasteurization, chemical composition, microbiological parameters, indicators of oxidative spoilage, water activity, storage conditions, shelf life.

Features of fractionation of cattle blood

A.V. Izgaryshev, A.Yu. Prosekov

The paper presents mathematical calculations of durability of blood fractionation and offers variants of structural vascular changes with the shared substance of centrifuges for intensification of the separation process. These calculations can be used to develop methods for fractionation of blood, including those to choose a centrifuge for separating blood and other substances.

Key words: blood of cattle, fractionation, separation factor, duration of the blood separation process.

Phosphates "Denfos" – a novelty in the Russian market

A.A. Semenova, V.V.Nasonova, E.K. Tunieva

Objects of study were model samples of ground raw meat (NOR with pH, PSE with pH, DFD with pH), containing 25% of water, 2.0% of sodium chloride, and 0.3% of food phosphates. In composition of samples No. 1 and No. 2 imported food phosphates widespread in the Russian market were introduced. After that a comparative analysis of phosphate-containing preparations by their impact on physical and chemical characteristics of meat was carried out.

Key words: food phosphates, sausage "Doktorskaya", comparative studies, water activity, water-holding capacity.

Transparency of all processes at sausage factory of Prioskolye group in CSB-System

I. Demin, G. Schalk

Plant for production of sausages "Prioskolye", designed for capacity of 40 tons per day, is a new project of agricultural holding "Prioskolye". Implemented at this plant branch IT-solution of the German company CSB-System

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ECONOMY

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tem allows to control all manufacturing and storage processes and manage them online.

Labor costs and principles of their determination at meat industry enterprises

I.V. Petrunina, T. A. Marinina

The methodology presents forms of maps on timing and photographs of the working hours. At the same time standards of the time to rest and serve the workplace, recommended modes of work and rest, depending on the work performed, are given.

Key words: regulation of labor, costs, labor costs, standard time, production quotas, production process.

Slaughter house as integrator is promising

Interviews of director general of "Vladi" meat packing plant Dmitry Vladimirov about the ways of development of the meat-processing plant. One of the most attractive solutions is vertical integration based on industrial enterprise

Use of preparations based on hydrogen peroxide during sanitation of equipment and surfaces in slaughter house premises

A.S. Ivanova, S. S. Kozak

In food production it is important to observe preventive measures aimed at improving the quality of products and killing bacteria that cause food poisoning. It is necessary to search for new chemicals for cleaning and disinfection of equipment and premises of the slaughter department. A promising trend is usage of preparations based on hydrogen peroxide.

Key words: sanitation, slaughter department, hydrogen peroxide, disinfectants/

Stable quality as an idea and reliable means

B.E. Gutnik

Criticism of butchers in media has little to do with real problems of quality and safety of meat products. The main problem is lack of systematic approach to ensure stable quality of meat products at many enterprises.

Evaluation of quality and safety of functional pork in enrichment of animal diets with nutraceuticals

E.A. Moskalenko, N.E. Skoblikov, A.V. Ustinova, V.N. Schiptsov

The experiment on pigs found a beneficial effect on meat quality and safety of the dietary supplement of selenium and iodine in composition of probiotic based on lactic acid bacteria. Experiments on rats-weanlings showed significant accumulation of iodine and selenium in the muscles and organs, as well as lowering cholesterol levels (by 42.4%) and triglycerides (by 16.3%) in the blood of experimental animals, receiving as dietary supplement meat, enriched with microelements, in comparison with animals, to whose diet was added unenriched meat.

Key words: pigs, probiotic, diet, microelements, selenium, iodine, quality and safety of meat, rats-weanlings, functional meat.

Influence of preparations SAT-SOM and "Selenolin" on slaughter and meat quality, chemical composition and biological value of meat from young pigs

A.A. Ryadnov, Yu. V. Melnikova, T. A. Ryadnova

The article deals with research materials that investigated the influence of preparations SAT-SOM and "Selenolin" on slaughter and meat quality, chemical composition and biological value of meat of young guinea pigs being on rearing and fattening.

Key words: carcass yield, cut weight, chemical analysis.

Organization of input control system at meat processing plants

Yu.G. Kostenko, O.A. Matveev

The article describes modern organization of input control of raw materials at meat processing plants. Application of these provisions will allow to improve quality of manufactured products and reduce risks associated with their safety for consumers.

Key words: input control, raw meat, materials, health regulations, safety, quality, packing materials, sampling, laboratory investigations.

"Meat Industry. Chicken King": meeting in two years

A.A. Kubyshko

From 17 to 19 May in Moscow Exhibition center "Crocus Expo" international exhibitions of innovative technologies and promising developments took place. They were organized on the principle "from field to counter" – "Meat industry. Chicken King / VIV Russia-2011" and "Industry of Cold". Organisers: Exhibition company Asti Group (Russia) and VNU Exhibitions Europe (Netherlands).

Competition-tasting "Meat Industry" – the way to high quality

A.S. Dydykin, O.K. Derevitskaya, V.B. Krylova, T.V. Gustova

Report on traditional competition-tasting of quality of meat products for child nutrition and quality of canned meat and meat-and-vegetable food based on the principle of closed tasting. Contests were held in the framework of the Tenth International Forum "Meat Industry-2011".

Semi-finished products as sign of civilization

O.V. Lisova

On the history of semi-finished products, their advantages, forms and methods of preparation. If you come up to semi-finished products with an invention, you can cook more than expected their designers.

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