## FEEDSTUFFS AS PRODUCED ON THE BASIS OF INEDIBLE RAW MATERIALS

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The development of balanced feedstuffs of full value which the most completely satisfy the requirements of animals in nutrients biologically active substances (proteins, fats, carbohydrates, macro- and microelements, vitamins, amino acids, etc.) refers to the number ationally by-products of the food industry, e.g. residues of mill, oil extraction, starch, sugar and other in-dustries, in the manufacture feedstuffs. However, many non-traditional sources of inedible raw materials don't find yet a practical use in the production of feedstuffs.

The present report includes results of experimental studies on the development of multi-component feedstuffs based on large-volume <sup>10</sup> of meat (fleshy inedible raw materials, bone), woodworking (acid hydrolyzed sawdust), brewing (brewers' grains) industries as well as <sup>20</sup> enzyme hydrolyzed blood proteins.

Three formulations of feedstuffs were developed by using the mathematical methods for planning experiments, those feedstuffs different quantitative content of components above-named. New formulations were approved first in laboratory and after that in industrial content of these feedstuffs was carried out according to generally accepted physico-chemical methods of analysis (Table 1)

Content of (%)							
water	fat	ash	protein	fibres			
2,15	18.5	33.6	34.15	2 7			
1.82	19.7	20.8	22.75	5,7.			
4,40	15 53	30.70	33,75	6,70			
	water 2,15 1,82 4,40	water fat   2,15 18,5   1,82 19,7   4,40 15,53	Content of   water fat ash   2,15 18,5 33,6   1,82 19,7 29,8   4,40 15,53 30,70	Content of (%)   water fat ash protein   2,15 18,5 33,6 34,15   1,82 19,7 29,8 33,75   4,40 15,53 30,70 20,5			

Studies on the amino acid composition of proteins of feedstuffs produced showed that they contained all the non-essential and essential and permissible level.

It is important to emphasize that changes in the chemical composition of feedstuffs in one or another side can be achieved, in case of need decreasing or increasing the content of ingredients these products contain. Thus, when increasing a mass portion of hydrolyzed blood formulation III up to 30 %, the protein content of a product increases to 51,5 %.

Furthermore, physico-chemical characteristics of feedstuffs are very influenced by the moisture content of additives to be introduced in the When using, e.g., pressed and dried by the different methods brewers' grains, up to 15 % of sugars and amino acids is lost; a part of provide substances is converted into an indigestible form and becomes hardly water-soluble one. It leads to decreasing a nutritive value of feedstuffs

Studies carried out in critical experiments on 8-week old rats and aimed at clearing up, whether feedstuffs produced are harmless of haven't revealed the death or the appearance of any extraneous or toxic phenomena. No deviations in behaviour-reactions of animals we observed. External and internal examination of their internal organs (heart, liver, kidney, spleen) after slaughtering hasn't revealed deviations from the norm. It allowed to conclude that feedstuffs studied were non-toxic ones.

In chronical experiments on non-pedigreed male rats which were fed with mixed feeds under study for three weeks a high eating quality these feeds and a progressive gain in weight of experimental animals were noticed as compared with control ones which were fed a stand vivarium ration (Table 2) what indicates of a growth-improving activity of these feedstuffs.

It can be believed that a growth-stimulating effect to be observed and a high feeding value of new kinds of feedstuffs are the result of presence in them of not only meat fleshy raw materials but also products of the degradation of cellulose molecules being formed during hydrolysis of sawdust (D-glucose, in particular), B complex vitamins, calcium and magnesium salts and other biologically active substant which brewers' grains contain as well as free essential amino acids which hydrolyzed blood contains.

No. of formulation	Mean initial body mass of rats in a group, g	Body mass of rats (g) when feeding during			Weight gain of body mass of rats (g) in:			Final weight gain of body of rats %
To standings. Tofice I should be had	Laborate One Secole Co.	1 week	2 weeks	3 weeks	1 week	2 weeks	3 weeks	
Ι	122,0	139	161	176	17	39	54	144.26
II	123,0	142	164	179	19	41	56	145.52
III	122,0	152	174	194	30	52	72	159.0
IV (control)	123,0	140	155	158	17	32	35	128 45

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The prevention of commission of meat products, expectivy these not subjected to theread terminant, or stoned for long parents example, semi-emoked or smoked and cooked tearages whiching (pareids and general) is a very important problem. In thereture (1,2) there is information about different charical compounds and for this purpose, particularly, organic so is tool (control formet, format, but control so is tool and

illinged for treatment of finds.

but the des of sightenics in food industry is questionable of underingtic horses of the applicance of antiburies resisting and the orin human organizate Particularly, this observe the application of an applicance of antiburies resisting and a the The company, "that Brandes" (the Netherlands) produces the preparation distanced, the use of which for the teament of the ce

The effective component of delivered is neveral countries (Etimela and ethers).

Caltroli is not used as realizing and versions purposes and streining the possibility (in these microagenisms, including in forming for possibility (in these microagenisms, including in forming for the possibility of the p

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This preparation with not used provintials, the ching contains a fungicidal solutions, which is a cyclic pender and lactice in ratio 1 is preparation with the used provintiants, the following the biosynthese was carried out purposedully for obtaining this preparation with properties - to make the fungi, having the negative influence on the quality of footstuffs. The preparation is a created out purposed of a second second second second second reaction of the contract of the preparation is a created of the preparation is a created of the second secon

The composition is prepared by ineclassical mixing of the instruction of the inspirate at the sortage of the food casing a solution of the contrast of the co

or real organism. Appring this trigger 154 as well as with the help of ling's performance liquid chromotography. UV-detector 214 for several content of the product of the

columned. Then the created states (10) was placed in the aquatus solution of sale, patting the liquid until the antiper and subserved. Then the created states casing was kept in the ready suspension of the preparation during 15-20 min. The remained subserves is allowed to trickle down and the comminuted ment is formed into the treated casing. The subsequent technological cannots ture and states (for example raw and raw-drined stating as carried into the treated casing. The subsequent technological states are an even at the comminuted ment is formed into the treated casing. The subsequent technological states are an even at the comminuted ment in the carried on the second by to the account of subsequent technological states are appreciated in the states and the second states are carried on account of the account of states are been at the second states and a states are states and the states and the second states are carried on the second states are been at the second state and an attributes.

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