ENZYMATIC HYDROLYSIS of PROTEIN of MEAT AT USE NEW BIO- of a DRUG

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INTRODUCTION, background

Now with reference to meat products a potent agent of intensification of production are the biotechnological receptions of processing of raw material allowing alongside with reduction of technological processes noticeably to improve the quality characteristics of ready products. Many researchers to such active biological factors carry ferment drugs (FP), targeted changing frame, composition both properties of processable raw material and productions, influencing parameters, meat products. The world{*global*} experience testifies to growing scales of application FP in processing branches, on the average, the appreciable actual material on use various FP in technology of meat and meat products, including cured and cooked of lumpy products cumulatives for 12 % annually and. In series of modern technological processes of processing of meat raw material, ambassador, as the way of preservation, stabilization of properties and improvement of his{*its*} quality characteristics, on the prevalence, appeal and importance borrows{*occupies*} under the right one of conducting places.

MATERIALS. METHODS

For judgement about character and depth of a proteolysis of albuminous fractions of meat raw material under action of a ferment drug - "«Collagenase", studied change of the contents of free amino acids in control and experienced samples.

RESULTS And DISCUSSION

The process of an enzymolysis agrees by the data of experiment results in accumulation of free amino acids in a salty beef, thus the substantial growth of such amino acids as a glutamic acid, Leucinum, proline, Histidinum, lysine fixed, that results in accumulation of substances responsible{*crucial*} for process tast-aromated development ready cured-cooked fermented of a product, ready. The results are submitted in the table 1.

The contents of free amino acids in samples of a salty beef depending on concentration of a used ferment drug.

The difference between the contents of an oxyproline in control and experienced samples testifies to enzymatic splitting and protein of a connecting tissue; she{*it*} makes upon termination of processes of maturing and curing up to 20 %, that serves the proof of presence in a drug of active starts{*! by the begining of*}, partially heedrolization a collagen up to water-soluble products.

It is possible to judge a level and orientation of enzymatic processes at maturing in посоле and on accumulation of such products of disintegration of protein matters, which usually define{*determine*} totally by quantity{*amount*} of protein nitrogen. The process of an enzymatic hydrolysis of protein in experienced samples is essentially retarded after 36 hours of endurance in curing, while at a control sample, by kinetics of accumulation of protein nitrogen, the disintegration of albuminous fractions is observed and after endurance within 48 hours, though and is less intensive, than per the first day curing (table 2).

CONCLUSIONS

The prospects for the use of enzymic preparations with their excellent properties of biocatalystsin meat technology are considered. Analysis of their advantages and same aspects of practical use for the purposeful modification of meat raw materials different in composition and properties, and for the production of ready products with desired characteristics is presented.

THE LITERATURE

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The table 1.

The contents of free amino acids (iã/100 of a product)

Amino acids	the Control	a Sample 1	Sample 2	Samples 3
Lysine	19,5	30,0	55,9	56,9
Histidine	106,2	108,6	133,4	138,9

Arginine	11,7	12,4	15,9	16,1
Aspartic acid	11,2	12,4	17,6	17,9
Treonin	14,0	16,7	24,2	24,8
Serin	16,5	16,8	18,9	18,9
Glutamic acid	24,3	29,0	68,1	69,4
Proline	6,9	31,7	54,5	60,3
Glycine	12,0	12,7	12,9	13,6
Alanine	52,1	52,6	55,6	58,9
Cystine	2,2	2,3	2,6	2,6
Valine	17,9	22,6	38,3	38,5
Methionine	6,2	8,4	16,8	18,9
Isoleucine	13,7	16,8	25,2	28,4
Leucine	27,9	33,6	53,1	54,2
Tyrosine	12,9	14,5	20,8	21,4
Phenilalanine	14,8	18,8	29,7	30,8
TOTAL:	348,2	437,3	642,5	670,9
Including Irreplaceable	125,8	159,8	258,6	263,7

The table 2.

Change of quantity{*amount*} of protein nitrogen during process curing and maturing of meat
Duration Quantity{*amount*} of protein nitrogen in % to starting

Maturing	the Control	a Sample 1	Sample 2	Samples 3
12 hours.	3,1	4,8	5,3	6,2
24 hours.	4,7	7,1	8,2	9,9
36 hours.	5,9	8,4	9,3	10,5
48 hours.	6,6	8,7	9,8	10,8
60 hours.	6,9	8,8	10,1	10,9