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PRESERVATION OF CONCENTRATES WITH DRY  
DEHIDRATED MILK IN VARIOUS PACKAGINGS

S. S. Bogautdinov

Army Foreign Science and Technology Center  
Charlottesville, Virginia

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 220 SEVENTH STREET NE.  
 CHARLOTTESVILLE, VIRGINIA 22901

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ABSTRACT:

The effect of packing materials like polyethylene-cellophane, cellophane-metal PE parchment and labeling paper on the duration of storage of food concentrates with dry skimmed milk is investigated. Results show that the first two materials can allow to preserve conservatives for longer periods.

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PRESEKVATION OF CONCENTRATES WITH DRY DEHIDRATED MILK  
IN VARIOUS PACKAGINGS

S. S. BOGAUTDINOV  
Ya. G. MURAVIN, Ph. D.  
A. S. NEMTSOVA  
V. A. LYTSYK

All Soviet Research Institute of the Canning and Vegetable-  
Drying Industry

The effect of packing materials on the duration of storage of food concentrates with dry skimmed milk was investigated in the All Soviet Research Institute of the Canning and Vegetable Drying Industry.

Recipes of concentrates of goats, vegetables and macaroni products with dry skimmed milk were developed. In these recipes 30 g of milk is used for one portion of the concentrate. Experimental batches of concentrates in briquets in two portions were prepared under factory conditions. The concentrates were packed in parchment and labeling paper (standard packing), in parchment and film PTs-2, and in parchment and cellophane-metal PE.

Concentrates packed in the polymer materials PTs-2 and cellophane-metal PE were thermally welded and those in the standard packing were glued. Storage of concentrates in different types of packings in storehouses with unregulated temperature and relative humidity for 12 months showed that moisture in the standard packing increased by 0,9 - 2,4% in film PTs-2 by 0,3 - 0,7%, and in cellophane-metal, it practically did not change.

Hermetic sealing of packings allows to maintain the moisture content of concentrates at a given level; this is very important because increase in moisture content has a bad effect on the consumer qualities of products.

Degustatory ratings (in points) of these concentrates in different packing materials are shown in the table;

Degustatory rating of  
Concentrates

Packing Materials

During  
Packing

After storing for different  
periods, months

6 . . . . . 12

"Potato Soup"

Polyethylene-Cellophane 2	4,5	4,1	4,0
Cellophane-metal PE	4,5	4,3	4,2
Parchment and labeling paper	4,5	3,9	3,2

"Vegetable Soup"

Polyethylene-Cellophane 2	4,3	4,1	3,9
Cellophane-metal PE	4,3	4,3	4,1
Parchment and labeling paper	4,3	3,8	3,2

"Buckwheat Porridge"

Polyethylene-Cellophane 2	4,7	4,3	4,1
Cellophane-metal PE	4,7	4,5	4,4
Parchment and labeling paper	4,7	4,0	3,6

"Stewed Vegetables"

Polyethylene-Cellophane 2	4,4	4,1	4,0
Cellophane-metal PE	4,4	4,3	4,1
Parchment and labeling paper	4,4	3,8	3,6

Organoleptic testing of the food concentrates with dry skimmed milk after 12 months of storage indicated that all qualities are well preserved in dry skimmed milk in combination with groats and vegetables. The best preservation was observed for concentrates hermetically packed in the film (PTs - 2) and cellophane-metal PE.

Results of experiments and observations showed that storage period for food concentrates with dry skimmed milk in cellophane-metal PE and polyethylene-cellophane can be substantially increased as compared to the standard packing.