

IMPROVING THE EFFICIENCY OF TRANSPORTATION OF BREAD BY PACKING GOODS

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We consider the question packaging of bakery products in their partionnomu rozviznyh traffic on routes that improves the efficiency of transport.

Transportation, bread and bakery products, pendulum route rozvizno-assembly route organiza-tion transportation, vehicles, containers, packaging.

Problem. The cost of the transport component in the total process of supply, production and distribution of products in the United States is third final price of products.

Transportation costs increase even more in the delivery of perishable goods to customers, which include bread.

Correct transportation conditions guaranteeing preservation of this group of consumer product features that determine its suitability to meet the specific needs according to his purpose.

Quality products in all countries considered as a healthy nation and therefore are one of the main concerns of the government of any country.

The share of perishable goods abroad is about 1%, and their value exceeds 12%. The value of goods and special conditions of transport organization form of delivery. You must strictly adhere to the time of delivery of goods in trade network in the morning (a certain time) to enable effective implementation of products.

Consumers (shopping, dining, schools, kindergartens, hospitals) bought bread and different number range. In Kiev Kyiv city, where we optimize transportation is 18 consumers bakery №11.

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The range of products includes bakery №11 52 main name bakery and confectionery products:

- bread - 8 items;
- crackers - 8 items;
- Doughnuts products - 3 items;

- confectionery - more than 10 kinds of cookies, 3 kinds of sand cakes and muffins;
- semi-finished products - frozen dough;
- Customized products - wedding loaves, cakes to order, etc;
- cakes - 10 items;
- Bakery Products - 10 items.

Nowadays partionni transportation bakery consumer shall be made as follows: the factory car loaded products to all consignees under their orders. Then the route rozviznomu each consignee imported, unloaded and transferred to the warehouse a number of baked goods made by them before ordering.

Such an organization linked to the time spent completing parties at the place of delivery and National Product in number and range.

Unloading is done usually by hand; it is possible product damage from rain, snow, for other reasons, theft of goods.

Analysis of recent research. Organization of cargo transportation dribnopartionnyh presented in [1,2,6]. But not today highlighted the assessment of cost-effectiveness packaging of perishable goods, which include bakery.

The purpose of research. The aim is to identify and economic evaluation of factors that affect the efficiency of baked goods in transport packaging shipments.

Results. After pickings party product in this container is made of packing tape. Each packet is assigned a number that corresponds to number of the consignee located on rozviznomu route.

In the transition to packet transport bread and bakery products reduces the complexity of handling, reduced loss products provided by saving the presentation of products, reduced downtime rolling stock for loading and unloading, idle while waiting in queues performance handling, reduced storage area premises, there is no need to equip shelters at the site of discharge products and more.

The annual economic effect of Er transition to packet transport bakery products determined by the formula:

$$Er = [(E1 + E2 + E3 + E4 + E5 + E6) - (B1 + B2 + B3 + B4 + B5)] \quad (1)$$

where E1 - the effect of reducing workers employed Handling, rub .;

E2 - the effect of reducing losses bakery, rub .;

E3 - the effect of increasing the load per unit of storage space and reduce the need for it at the same output, UAH. (The effect is due to an increase in the height of stacking packaged goods).

E4 - saving effect of presentation products, rub .;

E5 - the effect of reducing downtime of vehicles in the performance handling, rub .;

E6 - the effect of reducing downtime of vehicles in queue while waiting for loading and unloading, rub .;

B1 - costs of drafting packaging products, rub .;

B2 - the cost of purchasing pallets, rub .;

B3 - the cost of purchasing goods bonding film formed in the pan, rub .;

B4 - the cost of acquisition of mechanization handling and equipment for forming and sealing tape transport, rub .;

B5 - ongoing operating costs of mechanization handling and transport equipment sealing film UAH.

The components of the formula (1) are defined as follows:

$$E1 = N1 \cdot P1 - N2 \cdot CO2 \quad (2)$$

where N1 and N2 - the number of workers employed in handling before and after the introduction of packet traffic;

C1 and CO2 - wages with benefits before and after the introduction of packet traffic, UAH.

$$E2 = CPU \cdot \Delta P \quad (3)$$

where securities - unit price, USD.

ΔP - the difference between loss products before and after the packet traffic, vol.

$$E3 = (S1 - S2) \cdot Hp \quad (4)$$

where S1 and S2 - storage area in accordance nepaketovani and packaged goods m²;

Hp - average unit costs for purchasing, leasing, maintenance 1m² storage space (lighting, heating, rent, given specific investments, etc.), UAH.

$$E4 = Q \cdot (Tsp1 - Tsp2) \quad (5)$$

where Q - mass production, which lost its presentation to the packaging, vol.

Tsp1 - the price of one ton of product that has not lost its presentation, USD ..

Tsp2 - the price of one ton of product that has lost its presentation to the packaging, UAH.

$$E5 = Br \cdot (T1 - t2), \quad (6)$$

where Br - cost of one hour of downtime vehicle USD.

t1 and t2 - downtime vehicles during loading and unloading for a certain period of time before and after packaging, h.

$$E6 = Br \cdot (Toch.1 - toch.2) \quad (7)$$

where toch.1 and toch.2 - vehicle downtime waiting for loading and unloading, h.

Downtime waiting for early handling, h. Calculated on the basis of methods of queuing theory.

B1 - defined by the regulations.

$$B2 = N_{pid} \cdot B1 \text{ under. ,} \quad (8)$$

where N_{pid} - total number of pallets for a certain period of time pieces.

$B1$ under. - The cost of a pallet USD ..

$$B3 = N_{pl} \cdot B1 \text{ Sq.} \quad (9)$$

where N_{pl} - the cost of film on one tray, square meters ;.

$B1$ Square - the cost per square meter of film UAH ..

$$B4 = (+ V_{z.v.r.} \cdot V_{o.f.}) \cdot E, \quad B4 = (+ V_{z.v.r.} \cdot V_{o.f.}) \cdot E, \quad (10)$$

where $V_{z.v.r.}$ - The cost of funds performance handling, UAH.

$V_{o.f.}$ - the cost of equipment to create the package and its sealing film UAH.

$B5$ Size is determined by the actual costs to operate the equipment installed at the factory.

E -regulatory factor of economic efficiency of capital investments.

Established that the annual economic impact of the transition to the technology of the transport process of packing goods during transportation of bakery products in the Dnipro district. Kyiv 124 163 UAH.

Conclusions

The technology of transportation of bread and bakery products rozviznyh routes from the bakery №11 to consumers of packaging products.

1. The method of assessing the economic efficiency of conversion to transportation of unit load.

2. The annual economic impact of implementing technology transportation baked goods with packing consignments 124 163 UAH.

References

1. *Vorkut AI* Automobile transportations partyonnyh hruzyv. - K: High School, 1974 - 184 p.
2. *Vorkut AI* Hрузовые vtomobylnые and transportation. - K .: High School, 1986 - 447s.
3. *Gorev A.Э.* Hрузовые Automobile transportations: uchebnoe posobyе for studentov High society uchebnyh wound / Gorev A.Э. - 3rd ed. erased. - M .: Publishing Center "Academy", 2006. - 286s.
4. *Huzhoyan AP, NA Trotskaya.* Transportation of cargoes spetsyficheskyh avtomobylnym transport. Textbook for high schools. - M .: Transport, 2001 - 160 p.
5. *Dmytrychenko MF, Yatskivskyy LY, SV Shiryayev, Dokunihin VZ* Basic theory of transport processes and systems. Textbook for High Schools. - K .: Publishing House "Word", 2009. - 336s.
6. *Dokunihin VZ, Gudkov NN.* Improving transportation of milk and dairy products in. Shostka. Collected Works of educational and pedagogical staff and masters. - K .: Publishing House NUBiP Ukraine, 2010 - p. 80 - 84.

7. Dokunihin VZ, M. JM Carriage Rules and classification of goods. - K: NAU, 2008. - 196 pp.
8. Kotelyanets VI Efficiency Using transport in the agricultural sector. - M .: Kolos, 1980. - 222 p.
9. Kotelyanets VI The transport factor in agriculture / agribusiness economy. International Scientific Production Journal - 10`2007 (156) - p. 93 - 95.
10. Shanova S.Э. Freight эkспeдyтыcыoннoe Maintenance: учебнoe пoсoбyе for studentov High society учебныx wound / S.Э. Shanova, AV Popov A.Э. Gorev. - 2nd ed. erased. - M .: Publishing Center "Academy", 2008. - 432p.

In the work рассмoтpeны question пакeтыpoвaныyя хлебoбyлoчныx of products at partyoнныx Transit to develop-zoчныx routes something пoзвoлyaeт пoвыcыт Efficiency transit.

Transportation of, Bread and хлебoбyлoчныe Fixing, mayatныкoвы route развoзнoй-сбoрны route re-vozok Organization, podvyzhнoй composition, packaging.

The paper discusses issues of packaging of bakery products during transport to partyoнныx развoзoчныx routes, thus enhancing the efficiency of transport.

Transport, bread and bakery products, Orbital route развoзнoй-collecting trip, the organization of transportation, rolling stock, containers.

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ON THE INFLUENCE OF SOME STRUCTURAL PARAMETERS FOR PISTON MACHINES their performance

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Applying the method of large-scale changes such dynamic systems established relationship between basic design parameters of piston machines and their performance.

The dimensions of the cylinders, pistons average speed, work capacity, power, materials, effective efficiency.

Problem. In modern engineering practically not there are cases where the physical object is created "from scratch". The developed almost every object has a counterpart (like object) that is different from values generated object design parameters and operating modes. This makes it easy to determine the parameters of the new object in step