



 Research Article

USEFUL PROPERTIES OF NATURAL DRY MILK

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ABSTRACT

The article, the demand for consumer goods, including food, is growing every day due to the growth of the world's population. currently, the ferghana valley produces varieties of powdered milk "malyutka", "malish", "detolact", "lodushka". it is considered one of the best baby food products. Opinions are given about the exceptional taste that refreshes when using powdered milk, the content of vitamins, carbohydrates, proteins, calcium and their useful properties.

KEYWORDS

Milk, fat, protein, vitamins, chemicals, carbohydrates.

INTRODUCTION

According to the UN Food and Agriculture Organization (FAO) and the World Health Organization, now more than 80 countries can

not fully provide their population with food products.

Currently, several innovative innovations are being made in the field of dry milk production. In particular, the appearance of dry milk enriched with various nutrients, types aimed at improving intestinal activity are being produced and satisfying the requirements of consumers [1-6].

Dry milk mixtures include: "Malyutka", "Malish", "Detakt", "Lodushka", and dry milk "Vitalakt".

The dry milk mixture "Malyutka" and "Malish" have a moisture content 4 %, fat content 25 %, proteins 15% and mineral substances 4%. These dry milk products include the following technological process: acquisition, storage, preliminary processing, dosing, separation of dry milk with different components, packaging, storage and export of dry milk products are aimed at the introduction of bob products [7-13].

The resulting milk is passed through a separator, decreased and condensed at a temperature of 102-105°C in a vacuum. At the end of the thickening, add to it a pinch of sour cream obtained from the same milk itself, heat treatment at a temperature of 85-90 °C is continued. The condensed milk mixture is sent to the blender, in which it is thoroughly mixed with vitamins and vegetable oil. The enriched mixture is homogenized at a temperature of 4-6°C at a pressure of 60-65 MPa and sent to the drying apparatus without shaving. Dried and chilled dry milk product in the dryer comes to the bunker for a certain amount of storage [14-18]. In the second phase of enriching the product with components: sugar, vitamins and flour, previously introduced into the powder carpet, are added to the dried

milk product and mixed thoroughly. The finished dry component milk product is packed in cardboard packs and can be stored for up to 75 months in buildings with a relative humidity of air as well as at a temperature of 1-10 °C.

Dry milk "Vitalakt" is intended for children 5-6 months of artificial feeding, in the technology of preparation there will be the following processes: obtaining a dry mass with milk and spacing it with other dry components, packaging and storage of the mixture [19-25].

Normalizes the microflora, raises the immunity, kaltsiy, restores the protein deficit, has a positive effect on the metabolism. Dry milk, enriched with vitamins, is very useful for the human body, it is desirable to dilute it with water in the required amount due to its convenience.

Natural dry milk should not contain preservatives, stabilizers, aromatizers, coloring agents, sugar and sugar substitutes. The shelf life of natural dry milk should be no more than 8 months [26-31].

The consumption of dry milk throughout the world is increasing. Taking this into account, the manufacturers are engaged in product types in order to meet the demand of the market. Currently, the following types of dry milk are produced:

- Natural flavoring;
- Flavored, no fruit added;
- Enriched with many fillers;
- Enriched with fruits (at the bottom) according to the Swedish and French style;

- Decreased;
- Strong

For children and adults, that is, sportsmen, diet savers, who pay great attention to the health of dry milk enriched with vitamins.

It is widely used in the practice of dry milk, enriched with vitamins A and D, prepared mainly from skimmed milk. Often, vitamins C and E are also added to dry milk [32-37].

Vitamins are added to dry milk before the drying process. It does not affect the culture of microorganisms in the process of enriching milk with vitamins. Also included in the composition of dry milk vitamins do not affect the color, taste and smell [38-45]. The assortment of additives in the enrichment of dry milk is increasing in the United States and other countries, including Russia. In particular, vitamin supplements of the firm "Hofmann - Lya Rosh" are widely used.

Table 1. The supplement № 10796780 has the following vitamin composition, g/kg

Vitamin E acetate	82,000
Vitamin B	11,284
B6 vitamini (gidrokslorid)	14,640
PP vitamin	99,000
D-kaltsiy pantotenati	49,950
B12 vitamini	0,0065
Foli kislotasi	1,500
Biotin	0,825
C vitamini	450,000

1 Note:

2 Carrier - sucrose (up to 1000 g in total)

3 № 10796780 0.2 g of supplement is recommended for 250 ml of dry milk. 250 ml of dry milk contains 1 RDA (recommended daily requirement for vitamins (EEC 90/496)).

Vitaminization is widely used in the manufacture of food for children. Baby food is unique in its purpose [46-49]. It is produced in accordance with the physiological needs of infants, and in many cases is the only nutritious source of

essential nutrients. Thus, baby food should include a balanced diet for children. The goal can only be achieved if vitamins and minerals are added to meet the needs of children in addition to the main ingredients, including proteins, carbohydrates and fats.

Baby food should fully meet the needs of children for nutrients as well as vitamins. The product concept, production conditions, technology are standard vitamin concentrates or individual, adapted to local conditions and applied according to customer requirements [50-53].

Vitamin supplements used in baby food have several advantages over other types of supplements:

- Reduction of the risk of errors and a stable guarantee of quality of the finished product (physical, chemical and microbiological indicators)
- Uniform distribution of the dose of vitamins over the entire mass of the product;
- Easy quality control;
- Decreased labor demand and storage of vitamins in warehouses
- Saving money by reducing the number of highly skilled personnel in the extraction of individual vitamins.

In order to further increase the useful properties of dry milk products, we need to improve the production of vitamin-fortified dry milk products in our country, increase the range of dairy products at Fergana "Voldia milk" and Margilan "White sugar milk" and produce dietary products. preparation of a new type of product, ie an assortment of dry milk, it is possible to offer the production of a dietary product using the beneficial properties of natural dry milk. The article presents innovative methods used in the cultivation of environmentally friendly food products that are safe for human health.

REFERENCES

1. Усманов, Б. С., Гоппиржонович, Қ. М., Сайтбековна, Қ. У., & Умурзақова, Ш. М. (2019). Особенности состава и свойств сафлорового соапстока, определяющие области его применения. *Universum: технические науки*, (12-3 (69)).
2. Ибрагимов, А. А., Маматкулов, М. Х., Косимов, М. Г., Мадалиев, Т. А., & Абролов, А. А. (2019). К вопросу о перспективах организации рыбной промышленности в Узбекистане и о рыбохозяйственном освоении водохранилищ Ферганской долины. *Universum: технические науки*, (12-3 (69)).
3. Маматкулов, М. Х., & Абдилалимов, О. (2020). Перспективы использования пищевого рыбьего жира в медицине. *Universum: технические науки*, (12-3 (81)), 79-81.
4. Шодиев, Д. А., & Нажмитдинова, Г. К. (2021). Пищевые добавки и их значение. *Universum: технические науки*, (10-3 (91)), 30-32.
5. Маматкулов, М. Х., Обидов, З. Ж. У., Холматова, А. А. К., & Мукимов, Н. А. У. (2019). К вопросу о перспективах применения технологических продуктов из рыбы в лечебных целях. *Вестник науки и образования*, (19-3 (73)), 15-17.
6. Шодиев, Д. А. У. (2021). Нажмитдинова ГККА Специфические аспекты производства продуктов питания. *Universum: технические науки*, (3-2), 84.

7. Guljakhon, N. (2021). The role of the stevia plant in the food industry. In Interdisciplinary Conference of Young Scholars in Social Sciences (pp. 334-338).
8. Ergashev, A. A., & Najmitdinova, G. K. (2020). Features of differentiated teaching of chemistry. Экономика и социум, (12-1), 89-92.
9. Sattarova, B., Shodiev, D., & Haqiqatkhon, D. (2021). The determination of the composition and structure of ferrocenyl benzoic acids by mass spectrometric and potentiometric methods. Innovative Technologica: Methodical Research Journal, 2(11), 56-58.
10. Shodiev, D., Haqiqatkhon, D., & Zulaykho, A. (2021). Useful properties of the amaranth plant. ResearchJet Journal of Analysis and Inventions, 2(11), 55-58.
11. Алиева, Ф. А. К., Шодиев, Д. А. У., & Далимова, Х. Х. К. (2021). УФ-видимый записывающий спектрофотометр уф-2201 спектрофотометр исследование синтетических красителей в безалкогольных напитках. Universum: технические науки, (11-3 (92)), 66-69.
12. Shodiev, D., & Hojiali, Q. (2021). Medicinal properties of amaranth oil in the food industry. In Interdisciplinary Conference of Young Scholars in Social Sciences (pp. 205-208).
13. Атамухамедова, М., Абдугаппаров, А., Михеева, А., & Ёрматов, Г. (2019). Влияние умственной деятельности у учащихся на газообмен в различных экологических условиях. Символ науки, (3), 81-82.
14. Rakhimzhanovna, A. M., Adkhamzhanovich, A. A., & Avazkhanovich, E. A. (2021). Physical performance indicators in young swimmers. Innovative Technologica: Methodical Research Journal, 2(11), 59-62.
15. Атамухамедова, М. Р., Саидова, А. Я., & Исраилжанов, С. И. (2018). Функциональные сдвиги в организме детей в неблагоприятных условиях окружающей среды. In Проблемы и перспективы развития экспериментальной науки (pp. 136-138).
16. Холдаров, Д. М., Шодиев, Д. А., & Райимбердиева, Г. Г. (2018). Геохимия микроэлементов в элементарных ландшафтах пустынной зоны. Актуальные проблемы современной науки, (3), 77-81.
17. Atamukhamedova, M. R., Eminov, A. Y., & Boratov, O. M. (2019). Changes in the respiratory and blood system as a result of physical exercises. Scientific Bulletin of Namangan State University, 1(10), 317-322.
18. Шодиев, Д. А. У., & Расулова, У. Н. К. (2022). Значение амарантового масла в медицине. Universum: технические науки, (1-2 (94)), 69-72.
19. Nabievna, S. B., & Adxamjonovich, A. A. (2021). The chemical composition and properties of chicken meat. Innovative

- Technologica: Methodical Research Journal, 2(10), 25-28.
20. Саттарова, Б. Н., Аскарлов, И. Р., & Джураев, А. М. (2018). Некоторые вопросы классификации куриного мяса. *Universum: химия и биология*, (11 (53)), 36-38.
21. Атамухамедова, М. Р., & Саидова, А. Я. (2020). Основные правила питания при занятиях спортом. In *Новая наука: история становления, современное состояние, перспективы развития* (pp. 265-267).
22. Саттарова, Б. Н., Аскарлов, И. Р., Хакимов, М. У., & Мадалиев, Т. А. (2019). Влияние полученных биостимуляторов на повышение живой массы цыплят. *Universum: химия и биология*, (12 (66)).
23. Атамухамедова, М., Кузиев, О., & Исроилжонов, С. (2019). Уровень вентиляции и произвольное апноэ дыхания. *Наука В Современном Обществе: Закономерности И Тенденции*, 265.
24. Yuldasheva, S. Q., & Soyibnazarov, B. E. (2021). Bio ecological properties and significance of california red worm. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(4), 1946-1950.
25. Yuldasheva, S. Q. (2020). Characteristics of distribution of aphis craccivora aphid in the vertical regions of southern fergana. *Theoretical & Applied Science*, (5), 852-854.
26. Атамухамедова, М. Р., & Эргашев, А. А. (2021). Санитарно-гигиеническое значение вентиляции производственных помещений. *Интернаука*, (37-1), 19-21.
27. Sattarova, B., & Xurshid, A. (2022). Importance of missella refining technology for vegetable oils. *Innovative Technologica: Methodical Research Journal*, 3(01), 42-46.
28. Атамухамедова, М. Р., & Аминжанов, А. А. (2021). Показатели физической работоспособности у молодых пловцов. *Интернаука*, (37-1), 9-10.
29. Sattarova, B., & Farangiz, I. (2022). Effects of ice cream concentration with cocoa on human health. *Innovative Technologica: Methodical Research Journal*, 3(01), 86-91.
30. Odiljonovich, T. Q. (2021). About automation of loading and unloading of cotton raw materials at cotton factory stations. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(10), 2068-2071.
31. Atamukhamedova, M. R., Yormatov, G. S., & Erkaev, E. A. (2019). Relations between basic exchange and sprint. *Scientific Bulletin of Namangan State University*, 1(10), 304-308.
32. Yuldasheva, S. K. (2020). Seasonal quantity dynamics of leaf top nut aphids. *Scientific Bulletin of Namangan State University*, 2(4), 85-92.
33. Каримов, Н. М., Абдусаттаров, Б. К., Махмудова, Г., & Саримсаков, О. Ш.

- (2021). Пневматическая транспортировка хлопка-сырца на хлопкозаводах. In *Инновационные Подходы В Современной Науке* (pp. 61-70).
34. Sattarova, B. N., & Maxmudova, A. A. (2022). Meva-rezavor qandolat mahsulotlari. *Innovative Society: Problems, Analysis and Development Prospects*, 112-116.
35. Ergashev, Y., Xusanova, S., & Axmadjonov, D. (2022). Analysis of the fiber quality of cotton varieties grown by region. *Gospodarka i Innowacje.*, 21, 242-244.
36. Атамухамедова, М. Р. (2021). Анализ сырья и методы приготовления сложных удобрений. *Интернаука*, (37-2), 5-7.
37. Сидиков, А. Х., Махмудова, Г., Каримов, А. И., & Саримсаков, О. Ш. (2021). Изучение движения частиц хлопка и тяжёлых примесей в рабочей камере пневматического очистителя. *Universum: технические науки*, (2-2 (83)).
38. Sattarova, B., & Mokhlaroyim, K. (2022). Extraction of oil by pressing. *Innovative Technologica: Methodical Research Journal*, 3(02), 8-13.
39. Yuldasheva, S. Q. (2021). Bioecological features of the bracanoid family in Fergana Valley. *Asian journal of multidimensional research*, 10(4), 965-968.
40. Атамухамедова, М. Р. (2022). Адаптивные изменения систем внешнего дыхания детей и подростков при мышечной деятельности. *Universum: медицина и фармакология*, (2 (85)), 16-18.
41. Sattarova, B., & Farangiz, I. (2022). Quality indicators of flavorings added to ice cream. *Innovative Technologica: Methodical Research Journal*, 3(02), 20-25.
42. Атамухамедова, М., & Саидова, А. (2021). Влияние возрастных особенностей организма на обмен веществ. In *Interdisciplinary Conference of Young Scholars in Social Sciences* (pp. 287-292).
43. Sharifjanovich, S. O. (2021, November). The Velocity Distribution over the Cross Section Pipes of Pneumatic Transport Installations Cotton. In *International Conference On Multidisciplinary Research And Innovative Technologies* (Vol. 2, pp. 29-34).
44. Sattarova, B., & Saidmakhammadjon, J. (2022). Factors affecting the quality of vegetable products and canned vegetables. *Innovative Technologica: Methodical Research Journal*, 3(02), 14-19.
45. Sattarova, B., & Xurshid, A. (2021). Methods of cleaning micelles in the production of vegetable oils. In *Interdisciplinary Conference of Young Scholars in Social Sciences* (pp. 293-296).
46. Yuldasheva, S. K., Azamov, O. S., Gulomov, S. Y., & Mukhammedov, M. M. (2021). The function of regulations quantity nuts afids with entomofags. *Asian Journal of Multidimensional Research (AJMR)*, 10(3), 393-397.

47. Atamukhamedova, M. R., & Erkaev, E. A. (2020). Methods of distance learning of biology course in higher educational institutions. Scientific Bulletin of Namangan State University, 2(10), 354-358. American Journal of Applied sciences, 3(05), 12-16.
48. Юлдашева, Ш. К. (2016). Значение насекомых в биологической защите растений. Актуальные научные исследования в современном мире, (5-2), 29-33.
49. Sharipjanovich, S. O., Umarali og, T. D., & Qizi, B. M. N. (2021). Current State And Analysis Of Equipment For Cleaning And Selection Of Seeds. International Journal of Progressive Sciences and Technologies, 29(2), 337-342.
50. Абдукаримова, Н. У., & Юлдашева, Ш. К. (2016). Роль насекомых паразитов в борьбе с вредителями агроцезонов ферганской долины. Актуальные научные исследования в современном мире, (5-2), 10-13.
51. Yuldasheva, S. K. (2020). Characteristics of vertical regional distribution of sap in nature. ACADEMICIA: An International Multidisciplinary Research Journal, 10(11), 2135-2139.
52. Kobiljonovna, Y. S. (2022). Little characteristics of bees distributed in the conditions of the fergana valley. Innovative Technologica: Methodical Research Journal, 3(02), 41-48.
53. Yuldasheva, S. Q., & Khabibjonova, O. (2021). Bioecological Properties And Significance Of Some Rabbit Breeds. The