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PRODUCTION OF COMPOUND FEEDS FOR BUDGERIGARS-PROSPECTIVE DIRECTION OF COMPOUND FEED DEVELOPMENT

Abstract

The article describes that budgerigar is one of the most popular domestic birds. Budgerigars have become so popular that they have "overtaken" even canaries in this regard.

The budgerigars eat the same as other parrots. They like nuts, millet, oats and wheat. Undoubtedly, they need fruits and vegetables for development and growth. They like to indulge in slices of tangerine and lemon, pears and apples.

It is advisable to use pelleted feed to meet all the needs of parrots in nutrients and biologically active substances. These are small dry pellets balanced in the amount of nutrients, with the addition of important essential amino acids and vitamins. Pelleted feed is made from a mixture of cereals, vegetables, mineral and vitamin supplements. No additional synthetic vitamins or supplements are required when feeding pelleted feed.

Parrots are popular in the world. The budgerigars rank 4th in Ukraine in popularity among pets after cats and dogs.

The pet feed market has existed for about 20 years in Ukraine, so in terms of volumes it lags far behind the world's leading markets. At the same time, the Ukrainian pet feed market is characterized as fast-growing according to analysts at Euromonitor International. It is considered that Ukraine is in 8th place in the TOP-10 fast-growing pet feed markets. However, the Ukrainian market is dominated by foreign producers feed from countries such as Hungary, Russia, the United States, France and others.

The following brands are among the budgies feed in Ukraine: «Lori», «Nature», «Maxi», «Special One», etc.

Proper feeding of budgies does not cause much trouble nowadays. Parrots like solid feed consisting of a mixture of cereals, and soft feed from fruits, vegetables and protein foods.

Pellets are a solution for parrot owners who haven't time to closely monitor their pet's diet. The pellets contain chopped fruits, vegetables and other useful components (depending on the brand and product). They can be given to the bird if it is not possible to get fresh food.

The pellets have advantages and disadvantages. The disadvantages include the difficult transition to a such diet, as the parrot does not understand that it is food. Advantages: the composition of pellets is enriched with essential and non-essential amino acids and vitamins. Pelleted feed is well balanced for the daily diet and haven't husks as an additional positive effect.

The cost of raw materials for the developed pelleted feed is on average 10 UAH per 1 kg. It is advisable to produce pelleted feed for budgies, because the low cost and high quality will attract owners of budgies.

Key words: budgerigar, pelleted feed, marketing researches, feed market, pet products, brands of budgies feed.

Introduction

Budgerigars are graceful birds. They enliven the room, filling it with joyful melodic sounds and twitter [1].

Budgerigar is one of the most popular domestic birds. Many people fell in love with this bird. Budgerigars have become so popular that they have "overtaken" even canaries in this regard. They have long held the lead in the number of birds in captivity among ornamental birds.

The budgerigar was first described by the famous English naturalist D. Shaw in 1805 (1794 is also mentioned in numerous publications on the budgerigar). At this time, D. Shaw's colleague Georg Nodder made the first graphic image of a budgerigar. As it turned out, it was the oldest image of a parrot in the world. In 1831 visitors of the Natural History Museum of the Linnaeus Society saw the first stuffed budgie. Prominent English naturalist and a wonderful illustrator at the same time John Gould described the budgie in the wild [2].

The budgerigars are inhabitants of open spaces or savannas, where they find their main food - the seeds

of herbaceous plants. Wild budgies are found in semi-desert areas of central Australia. They are kept in large flocks and lead a nomadic lifestyle. Flocks are flying constantly from place to place in search of water and herbaceous plants with ripe seeds.

The budgerigars were brought to Europe from Australia about 150 years ago. It turned out that they are very easy to adapt to life in captivity and become tame. The number of budgies kept in captivity far exceeds the number of these birds living in the wild to date.

Parrots are quite smart and clever. They become not only good listeners, but also friends for a person. These birds are independent and have a strong character. Parrots of this breed are well trained. They are fun and funny.

The budgerigars eat the same as other parrots. They like nuts, millet, oats and wheat. Undoubtedly, they need fruits and vegetables for development and growth. They like to indulge in slices of tangerine and lemon, pears and apples. They often have intestinal disorders. Budgie has been accustomed long to living at home [2].

It is advisable to use pelleted feed to meet all the



needs of parrots in nutrients and biologically active substances. These are small dry pellets balanced in the amount of nutrients, with the addition of important essential amino acids and vitamins. Pelleted feed is made from a mixture of cereals, vegetables, mineral and vitamin supplements. No additional synthetic vitamins or supplements are required when feeding pelleted feed.

Purpose and objectives of the analysis

The purpose of the study was to substantiate the feasibility of production of feed for budgies, marketing research and analysis of the feed market for parrots.

Results and its discussion

As a rule, the owners of parrots are very careful about feeding, because these small and tender birds can:

- 1) be poisoned by food "from the table";
- 2) be poisoned in case of use of poor-quality forage;
- 3) die from the wrong diet. Therefore, we can conclude that the production of feed for parrots is relevant.

Parrots are popular in the world, as evidenced by Fig. 1.

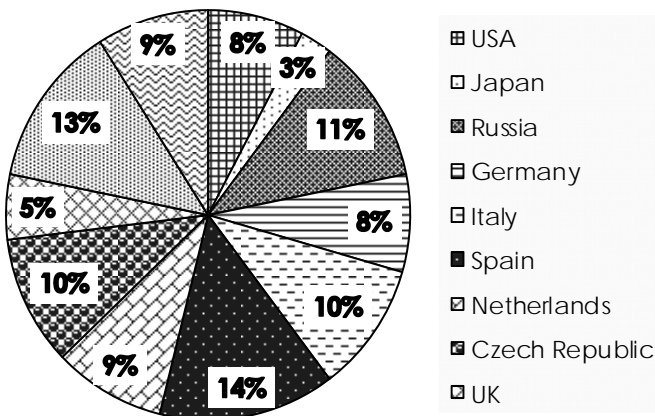


Fig. 1. Keeping parrots in different countries [3]

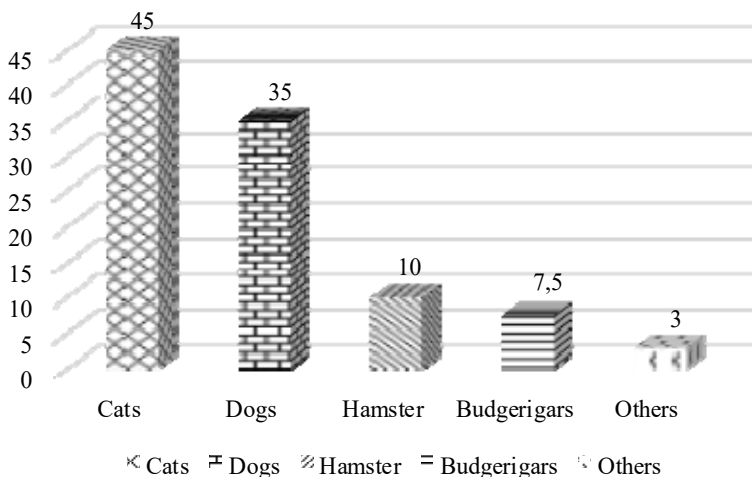


Fig. 2. Structure of domestic animal species in Ukraine, %

The budgerigars rank 4th in Ukraine in popularity among pets after cats and dogs (Fig. 2).

The pet feed market has existed for about 20 years in Ukraine, so in terms of volumes it lags far behind the world's leading markets. At the same time, the Ukrainian pet feed market is characterized as fast-growing according to analysts at Euromonitor International. It is considered that Ukraine is in 8th place in the TOP-10 fast-growing pet feed markets. However, the Ukrainian market is dominated by foreign producers feed from countries such as Hungary, Russia, the United States, France and others. The company «Kormotech» was founded in Ukraine only in 2003. Today it has become a leading domestic pet feed producer, entering the TOP-50 largest European producers. «Kormotech» has significantly increased production, increasing its portfolio to 350 positions and exporting its products to 18 countries. «Kormotech's» brands occupy a leading position among producers in the field of animal feed production in Ukraine today (Fig. 3) [4].

The following brands are among the budgies feed in Ukraine: «Lori», «Nature», «Maxi», «Special One», etc.

«Lori» was founded on December 17, 1993. The history of the company began with the opening of the first private pet store in Rivne. Private veterinary clinic was opened shortly after the opening of the pet store. Then the idea of own production of animal goods appeared.

The pet products production was quite exotic in Ukraine during the founding of the company. The name «Lori» refers to both primates and birds. This is quite symbolic, because all the years of its existence the company works closely with the Rivne Zoo. Many of the company's products are developed through this interaction and are used to feed the inhabitants of the zoo.

«Lori» strives to constantly improve, not stop there and implement ideas to improve its range. Development of new products and maintenance of high quality standards of the existing one takes into account the recommendations of professional specialists in the relevant fields.

Crops was the first product that the company started to produce. «Flint» budgies feed is the flagship of production, it was one of the first in the Ukrainian market. Currently, a wide range of grain feeds, well known in the zoo for over 20 years, allows you to choose feed for different domestic species of birds and rodents. The quality of raw materials is carefully controlled and meets high quality standards due to selected grain from environmentally friendly areas of Ukraine. The production uses advanced technologies: automatic packaging, sublimation of fruits and vegetables, and unique types of packaging allow you to easily and conveniently view the contents of the package.

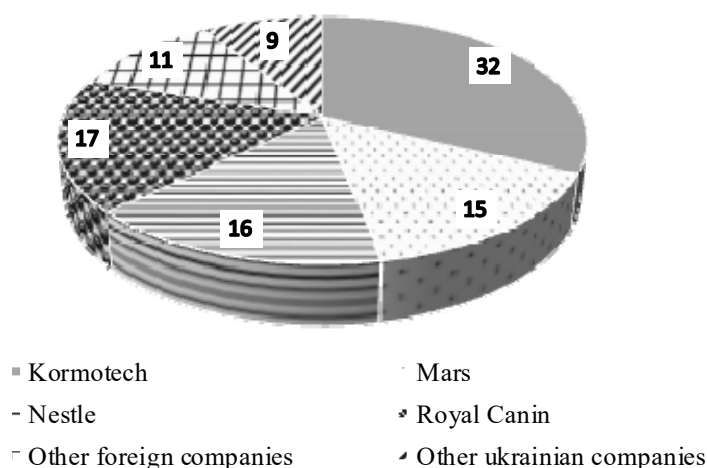


Fig. 3. The animal feed market division by producers in Ukraine

«Lori» products can be seen on store shelves around the world: Poland, the Czech Republic, Germany, Belarus, Moldova, Georgia. «Lori» strives to produce only high quality products and to control all stages of production processes. «Lori» sets itself the task of further development, introduction of advanced technologies, implementation of original ideas, which ultimately leads to the emergence of new, competitive products in the Ukrainian market and far beyond [5].

Trademark «Nature» [6] was created and registered by the company «Suzir'ja». The «Nature» brand has been one of the largest producers of pet products in Ukraine for more than 20 years. In 2019, the company became the first pet feed producer in Ukraine to be audited for compliance with the requirements of the international standard ISO 22000: 2018 and received a certificate.

«Nature» products are popular in the domestic market of pet products and are exported to 7 countries in Europe and Asia. Every year the company takes part in international exhibitions and expands its range.

The following brands are among the budgies feed importers in Ukraine: «VITAPOL», «Versele Nutrition Group», «Vitakraft» and others.

Trademark «VITAPOL» [4]

«Hobby» is one of the largest zoological companies in Poland. The well-known pet feed producer enjoys great recognition and popularity under the «VITAPOL» brand and has been operating on the Polish market since 1992. The company is a representative of European leading companies in the field of zoology and aquaristics in Poland for many years.

«Versele Nutrition Group» [7]

Today «Versele Nutrition Group» produces animal feed and has an annual turnover of 430 million euros. The third generation of the «Versele» family has a staff of almost 900 employees in the company's various branches in Belgium and abroad. «Versele Nutrition Group» works internationally in two main areas. First of all the group produces high-quality industrial feed. These livestock products are distributed under the «QUARTES» brand in the domestic market, represented

by Belgium, the southern part of the Netherlands and northern France. The second activity of the group is presented under the brand name «Versele-Laga». These include feed, related products, pet care products and treats for small pets.

«Vitakraft» [8]

Today «Vitakraft» is one of the largest manufacturers of pet products. The company has subsidiaries in Switzerland, Belgium, Austria, France, the United States, the Netherlands, the United Kingdom, Italy, Asia and Spain. Brand philosophy and the main task of «Vitakraft» is the health of pets. Manufacturers strive to optimize the range of their products to ensure proper feeding and care of pets.

Benefits of the brand:

1. High quality products that contain natural products. The quality of «Vitakraft» products is confirmed by monthly veterinary tests.

2. The «Color difference» concept. Products of each animals category have the packing color: yellow packing - goods for birds, green - for rodents, orange - for dogs, crimson - for cats. Buyers can easily find goods for the necessary group of animals.

3. Packaging design. «Vitakraft» makes the packaging of its products bright and colorful.

4. Soft packaging prevents the ingress of insects and ensures the freshness of products.

5. Wide range of goods.

The diet of budgies should be varied and balanced for the full development, health support and rapid recovery after molting. Proper feeding of budgies does not cause much trouble nowadays. Parrots like solid feed consisting of a mixture of cereals, and soft feed from fruits, vegetables and protein foods. Cereal mixtures for budgies are bought ready-made or mixed at home.

The parrots feed from pet stores can be a worthy alternative or supplement to natural food. They are usually cereals, sticks and crackers that parrots eat. You should pay attention to the manufacture date of the product and the presence in the feed of various dyes and additives buying the parrots feed [9].

Pellets are a solution for parrot owners who haven't time to closely monitor their pet's diet. The pellets contain chopped fruits, vegetables and other useful components (depending on the brand and product). They can be given to the bird if it is not possible to get fresh food.

The pellets have advantages and disadvantages. The disadvantages include the difficult transition to a such diet, as the parrot does not understand that it is food. Advantages: the composition of pellets is enriched with essential and non-essential amino acids and vitamins. Pelleted feed is well balanced for the daily diet and haven't husks as an additional positive effect.

All diets for exotic birds are still under development and pelleted feed is no exception. Scientists around the world are arguing about the effect of such feed on parrots. Parrots are critics of the quality, nutrition and taste of their feed. They don't happily consume the usual feed mixture after tasting the pellet once. It has



been proven that pellets have a good effect on the parrot's body. There are much more nutrients, vitamins and microcomponents in the compressed feed for the good development of the parrot's body.

Pelleted feed is not a new product, but it is not common in Ukraine. This feed is widespread in America and is rapidly gaining popularity in Europe for over 20 years. Americans are confident in the composition and quality of this feed. Besides the pellets don't leave a husk so no dust is formed. [10, 11]

«Versele-Laga NutriBird B14 Maintenance» is officially represented in Ukraine. The price of such feed does not correspond to the wallet of Ukrainians, because for 800 g of feed you have to pay 272 UAH, while pro-

ducers of grain mixtures in Ukraine put a price tag on their goods only within 50 UAH per 1 kg.

Conclusions

The relevance of the study and the volume of pelleted feed production for budgies are substantiated based on marketing researches. The structure of domestic animal species in Ukraine was analyzed. The animal feed market division by producers in Ukraine was determined.

The cost of raw materials for the developed pelleted feed is on average 10 UAH per 1 kg. We believe that it is advisable to produce pelleted feed for budgies, because the low cost and high quality will attract owners of budgies.

REFERENCES

1. Mikhaylov U. Z. *Volnistie papuhai: monografiya*. Moskva: "Yunves", 1999. 73 s.
2. *Referat ukrayins'koyu. Khvilyasti papuhi – khto voni y zvidki z"yavilisya: [Veb-sayt]*. Odesa, 2021. URL: <http://bukvar.su/biologija/page,2,12531-Biologiya-volnistogo-popugaya.html> (data zvernennya: 11.10.2021).
3. *Khvostaty stradalets: kak zashchishchayutsya prava zhivotnykh: [Internet-portal]*. Odesa, 2021. URL: <https://pravo.ru/story/208605/> (data obrashcheniya: 23.08.2021).
4. *VIVChENNYa RINKU I FORMUVANNYa POPITU NA RINKU KORMIV DLYa DOMASHNIKh TVARIN: [Internet-portal]*. Odesa, 2021. URL: http://www.market-infr.od.ua/journals/2019/32_2019_ukr/33.pdf (data zvernennya: 15.06.2021).
5. *Pro nas: [Internet-portal]*. Odesa, 2021. URL: <https://lori.net.ua/uk/pro-nas/> (data zvernennya: 20.09.2021).
6. *TM «PRIRODA»: [Internet-portal]*. Odesa, 2021. URL: <https://priroda.ua/uk/content/1-pro-nas%20> (data zvernennya: 25.10.2021).
7. *Versele-Laga: [Internet-portal]*. Odesa, 2021. URL: <http://www.prostozoo.com.ua/spravochniki/zoobrendy/id/136> - N (data zvernennya: 14.11.2021).
8. *Vitakraft: [Internet-portal]*. Odesa, 2021. URL: <http://www.prostozoo.com.ua/spravochniki/zoobrendy/id/137> (data zvernennya: 13.11.2021).
9. *Ptakhii - krasa i vidpovidal'nist'! : [Internet-portal]*. Odesa, 2021. URL: <http://zoosvit.org.ua/storinka/ptahi-krasa-i-vidpovidalnist/> (data zvernennya: 16.10.2021).
10. *Korm dlya ptakhiv. Tonkoshchi hoduvannya domashn`oho papuhi : [Internet-portal]*. Odesa, 2021. URL: <https://petcenter.com.ua/blog/kormdlja-ptahiv-tonkoschi-goduvannja-domashnogo-papugi/> – (data zvernennya: 30.11.2021).
11. *ZuPreem FruitBlend Small - Complete Food for Budgies : [Internet portal]*. Odesa, 2021. URL: <https://www.northernparrots.com/zupreem-fruitblendsmall-complete-food-for-budgies-prod571400a/> (viewed on: 18.09.2021).

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КОМБІКОРМИ ДЛЯ ХВИЛЯСТИХ ПАПУГ-ПЕРСПЕКТИВНИЙ НАПРЯМОК РОЗВИТКУ КОМБІКОРМОВОЇ ГАЛУЗІ

Анотація

У статті зазначено, що хвилястий папуга є одним з найпопулярніших домашніх птахів. Хвилясті папуги стали настільки популярними, що в цьому плані «обігнали» навіть канарок.

Їдять хвилясті папужки, те саме, що і інші папуги. Їм подобаються горіхи, просо, овес і пшениця. Безсумнівно, їм потрібні для розвитку і зростання фрукти і овочі. Люблять ласувати часточками мандарина і лимона. Не відмовляються від груш і яблук.

Для забезпечення усіх потреб папужок у поживних та біологічно активних речовинах доцільно використовувати гранульовані комбікорми. Це невеликі сухі гранули, склад яких збалансований за кількістю поживних речовин, з додаванням важливих незамінних амінокислот і вітамінів. Гранульований корм виготовляється з суміші злакових, овочів, мінеральних і вітамінних добавок. При годуванні гранульованим кормом ніяких додаткових синтетичних вітамінів або добавок не потрібно.

Папуги популярні у світі. Хвилясті папуги посідають 4 місце в Україні за популярністю серед домашніх тварин після котів і собак.



Ринок кормів для домашніх тварин існує в Україні близько 20 років, тому за обсягами значно відстає від провідних світових ринків. У той же час український ринок кормів для домашніх тварин характеризується як швидкозростаючий, за оцінками аналітиків Eurotonitor International. Вважається, що Україна посідає 8 місце в ТОП-10 швидкозростаючих ринків кормів для домашніх тварин. Проте на українському ринку домінують закордонні виробники кормів з таких країн, як Угорщина, Росія, США, Франція та інші.

Серед кормів для хвилястих папуг в Україні є такі бренди: «Лори», «Натур», «Максі», «Особливий» тощо.

Правильна годівля хвилястого папуги не викликає особливих проблем в наш час. Папугам підходить як основа твердий корм, що складається з суміші злаків, і м'який корм з фруктів, овочів і білкової їжі, в якості доповнення.

Гранули - рішення для власників папуг, у яких немає часу ретельно стежити за дієтою вихованця. У гранулах містяться подрібнені фрукти, овочі та інші корисні компоненти (в залежності від бренду і товару). Їх можна давати пташці, якщо немає можливості дістати свіжі продукти.

Гранули мають переваги і недоліки. До недоліків можна віднести складний перехід на такий раціон через те, що папуга не розуміє, що це їжа. Переваги: склад гранул збагачений незамінними і замінними вітамінами та амінокислотами. Гранульований корм грамотно збалансований для повсякденного раціону і не має лушпиння, як додатковий позитивний ефект.

Собівартість сировини для гранульованих кормів, які ми представляємо становить в середньому 10 грн. за 1 кг. Доцільно виробляти гранульовані корми для хвилястих папуг, адже низька вартість і висока якість, що не уступає бельгійському аналогу буде, приваблювати власників хвилястих папуг.

Ключові слова: хвилястий папуга, гранульований комбікорм, маркетингові дослідження, ринок кормів, продукти для домашніх тварин, марки кормів для хвилястих папуг.

ЛІТЕРАТУРА

1. Михайлов У. З. Волнистые папугаи: монографія. Москва: "Юнвес", 1999. 73.
2. Реферат українською. Хвилясті папуги – хто вони й звідки з'явилися: [Веб-сайт]. Одеса, 2021. URL: <http://bukvar.su/biologija/page,2,12531-Biologiya-volnistogo-papugaya.html> (дата звернення: 11.10.2021).
3. Хвостатий страдалець: как защищаются права животных: [Интернет-портал]. Одеса, 2021. URL: <https://pravo.ru/story/208605/> (дата обращения: 23.08.2021).
4. Вивчення ринку і формування попиту на ринку кормів для домашніх тварин: [Интернет-портал]. Одеса, 2021. URL: http://www.market-infr.od.ua/journals/2019/32_2019_ukr/33.pdf (дата звернення: 15.06.2021).
5. Про нас: [Интернет-портал]. Одеса, 2021. URL: <https://lori.net.ua/uk/pro-nas/> (дата звернення: 20.09.2021).
6. ТМ «ПРИРОДА»: [Интернет-портал]. Одеса, 2021. URL: <https://priroda.ua/uk/content/1-pro-nas%20> (дата звернення: 25.10.2021).
7. Versele-Laga: [Интернет-портал]. Одеса, 2021. URL: <http://www.prostozoo.com.ua/spravochniki/zoobrendy/id/136> - Н (дата звернення: 14.11.2021).
8. Vitakraft: [Интернет-портал]. Одеса, 2021. URL: <http://www.prostozoo.com.ua/spravochniki/zoobrendy/id/137> (дата звернення: 13.11.2021).
9. Птахи - краса і відповідальність!: [Интернет-портал]. Одеса, 2021. URL: <http://zoosvit.org.ua/storinka/ptahi-krasa-i-vidpovidalnist/> (дата звернення: 16.10.2021).
10. Корм для птахів. Тонкощі годування домашнього папуги: [Интернет-портал]. Одеса, 2021. URL: <https://petcenter.com.ua/blog/kormdlja-ptahiv-tonkoschi-goduvannja-domashnogo-papugi/> – (дата звернення: 30.11.2021).
11. ZuPreem FruitBlend Small - Complete Food for Budgies: [Internet portal]. Одеса, 2021. URL: <https://www.northernparrots.com/zupreem-fruitblendsmall-complete-food-for-budgies-prod571400a/> (viewed on: 18.09.2021).

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