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ECONOMICAL ACTUALITY OF USING BEESWAX IN COSMETICS INDUSTRY

One of the changing direction of developing industry is using natural resources, especially in cosmetics industry. Beeswax is a byproduct of honey production. Beekeeping is a unique primary industry. Foreign company is main manufacturer of cosmetics in Ukraine, but financial crisis helps to change priorities and to exchange main producer on domestics' ones. The share of natural and organic cosmetics is less than 1% today in Ukraine and 10% in Germany. In Ukraine, after 5 years, the share of natural and organic cosmetics will grow up to 3%. The low rate of domestics' firms has to be changed. Compare the advantages and disadvantages of mineral oils and beeswax. Admitted the importance to change mineral oil on beeswax. Counted the costs of making cosmetics with natural and chemical ingredients.

Keywords: beeswax; industry; cosmetics industry; costs.

Introduction. Women all over the world always try to look beautiful and nowadays began to realize that natural cosmetics are better in the long term. At the same time with this or as the reason environment protection from pollution become one of main topic. Already, the market of natural cosmetics in Ukraine begins its activity, taking into account all the trends of the world, trying to take the position of leadership. Therefore, one of the changing direction is using natural resources, for example beeswax instead of mineral oils.

Beeswax is a byproduct of honey production. Beekeeping is a unique primary industry [1]. In Ukraine we have a long history of production of honey and other products. Nowadays beekeeping is a well-developed branch of agriculture in Ukraine.

Aim. Foreign company is main manufacturer of cosmetics in Ukraine. According to statistics almost all goods are come from abroad. In nowadays condition, include the rate of currency exchange it is good opportunity to change the main manufacturer into domestics one. One of such opportunities is to use domestic resources, as products of bees' industry. So, the aim of research is to analyze the benefits and weakness of using beeswax in cosmetics industry.

Results and Discussion. In recent years, in spite of decrease of economics, the sales of perfumery and cosmetics have increased from 30 billion UAH in 2015 to 36 billion UAH in 2016. It is called lipstick effect. When facing an economic crisis consumers will be more willing to buy less costly luxury goods. Instead of buying expensive fur coats, for example, people will buy expensive lipstick [2].

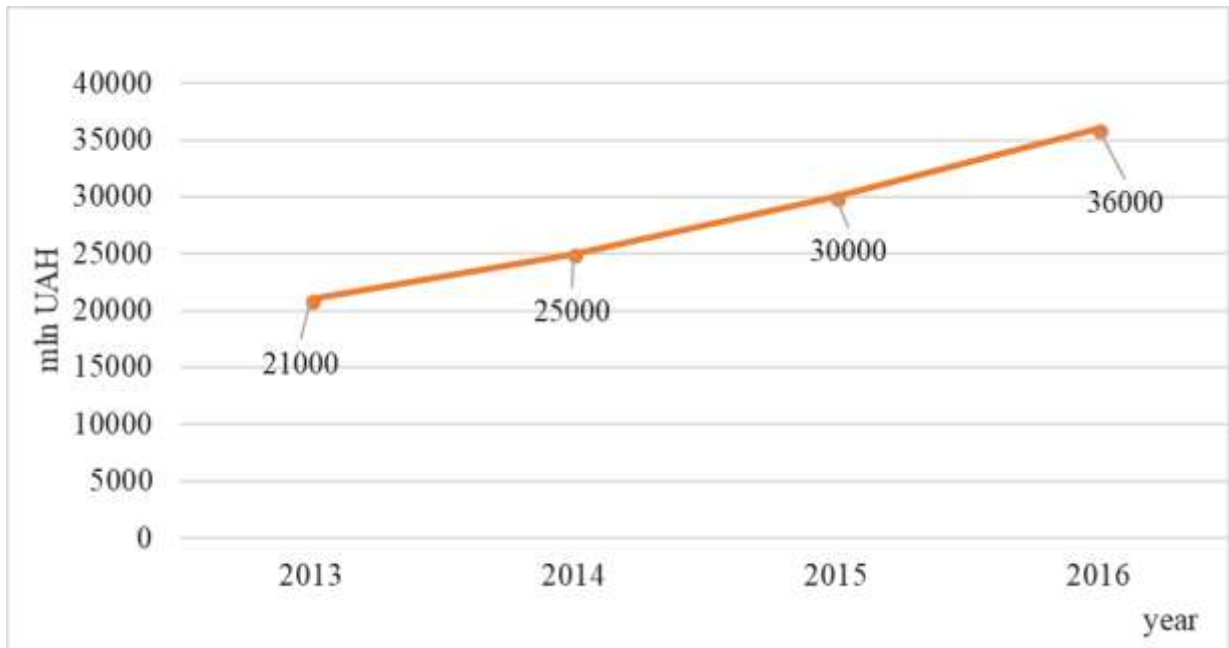


Figure 1 – Sales of cosmetics in Ukraine from 2013 to 2016 million UAH

Among the leaders in the sale of cosmetics – face care products, kits for nail care (gels, varnishes, etc.), hair care products (shampoos, balms, masks) and personal hygiene (shower gels and shaving, deodorants). But most products are gotten from import.

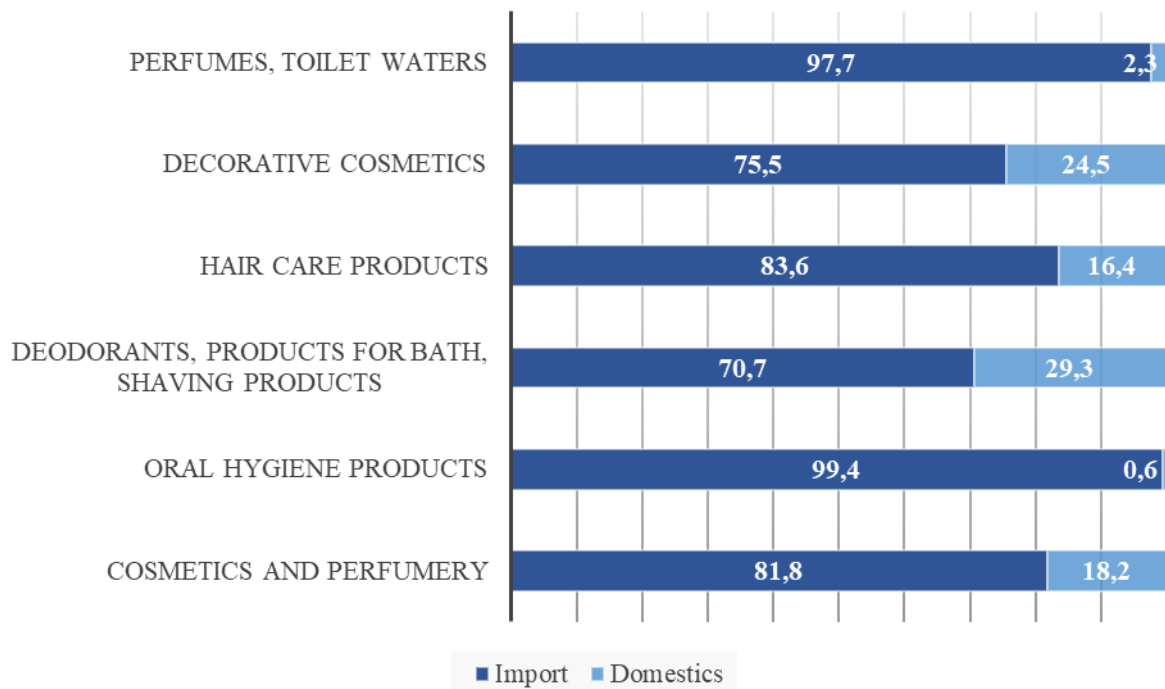


Figure 2 – The share of domestic and imports products in domestic market

The share of natural and organic cosmetics is less than 1% today in Ukraine and 10% in Germany. If we compare the situation in other market we can see that the most grate position is in the Brazil. If we compare the size of countries, we will see that Brazil is not so huge as USA and Asia countries. But the consume of natural cosmetics is higher in the Brazil as we see in graph. The reason for this is

the local supply of natural raw materials, as well as the traditions of the population, which have been using natural substances for centuries. The share of natural and organic cosmetics will grow up to 3% after 5 years in Ukraine.

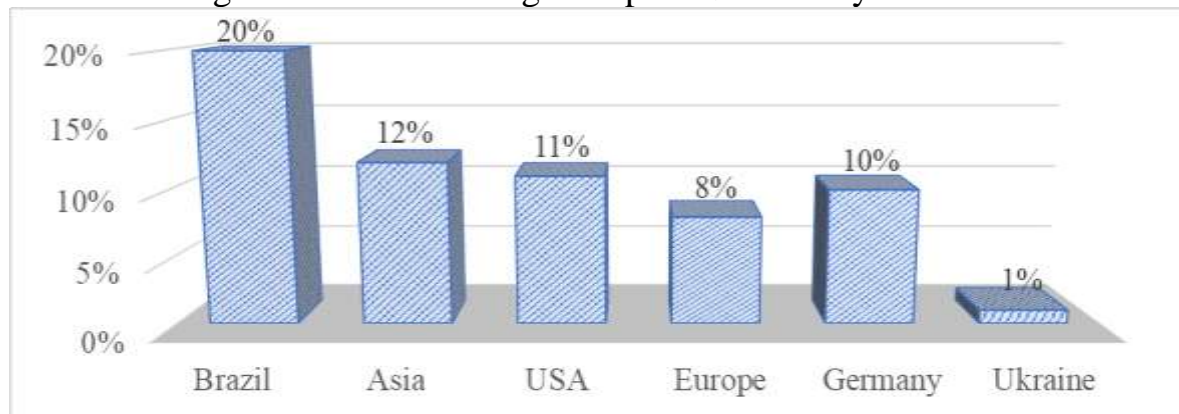


Figure 3 – Portion of natural cosmetics in all trade of cosmetics

Analyzed the quantity of enterprises making natural cosmetics and portion of natural cosmetics, we can see (fig. 4) that most part of Chinese market belong to their domestic enterprises, 400 enterprises of Russian make provision for 40% of their domestic market. We have only 20 enterprises in Ukraine, but only 10% from market of natural cosmetics (8% from all market) belong to them.

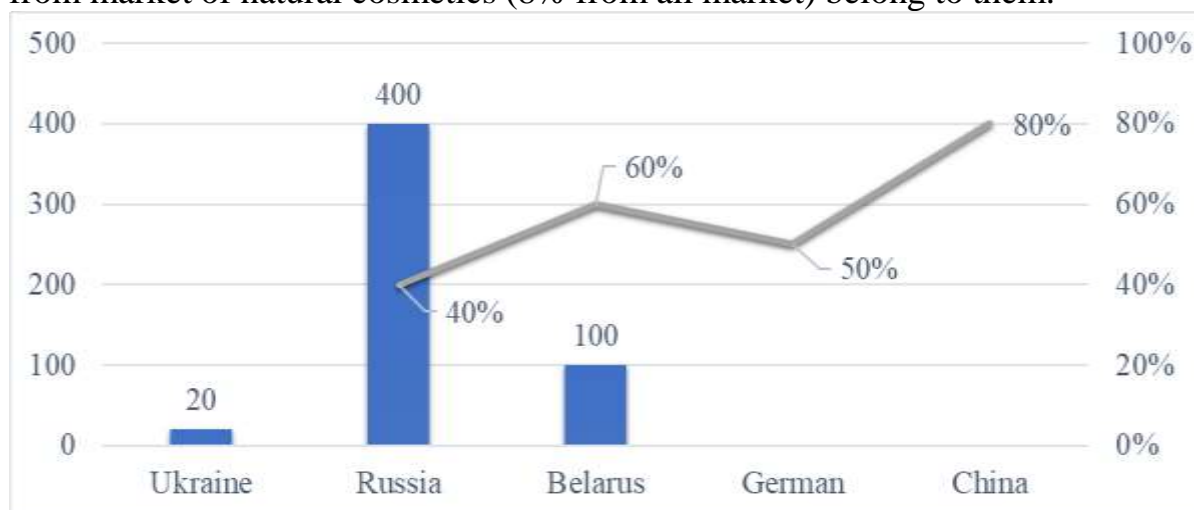


Figure 4 – Quantity and portion of natural cosmetics making enterprises

The idea of creating products based entirely on natural ingredients, appeared in 1996 on a wave of problem of pollution. Natural cosmetics are a product that improves and takes care of with natural ingredients, which are «friendly» for the skin and the environment. That is why the first natural cosmetics came up with the idea of people with sensitive skin and as products for children. Natural cosmetics contain at least 95% of the active ingredients, while the usual cosmetics contain a maximum of 5% (table 1).

Production of modern cosmetics is impossible without using of oils. In traditional cosmetics we use mineral oil, in natural one there are many different kind of natural oils, such as sunflowers, avocado, coconut and so on.

Table 1 – Contains of natural and traditional cosmetics

Contains	Traditional cosmetic product	Natural cosmetic product
Active ingredients	5 %	95 %
Excipients	60 %	3 %
Additional ingredients	35 %	2%

Mineral oil (such as mineral oil, liquid paraffin, petroleum jelly) is a product of petroleum distillation consisting of hydrocarbons, is used as a basis in the cosmetic industry. It's lightweight and inexpensive and helps reduce water loss from the skin. The product is approved by the EU, UK and United States, provided that the amount of oil does not exceed the permissible norm. But for today, in order to make the goods cheaper, this norm exceeds, that as result causes various skin diseases [3].

The biggest advantage is that it is cheapest. The main disadvantage is that it does not give the skin any nutrients. The cosmetic product can effectively soften the skin by mineral oil, but it also creates a coat on the skin, makes it breathing difficult, which can lead to acne. Some scientists think that it is produce cancer.

The function of mineral oil as a base may be replaced by a unique substance – beeswax. Beeswax is a biologically active substance that has a number of unique properties for the preservation of health and beauty. Beeswax is the substance that forms the structure of a honeycomb. Bees convert nectar into wax, building honeycomb to store their honey. Ten pounds of honey produces one pound of wax. It has a honey-like aroma and can be distilled into a fragrance.

Beeswax is an excellent addition to cosmetic products, for many reasons [3]:

- When used in lotions and creams, beeswax creates a barrier which helps to seal moisture into the skin. This is especially beneficial in lip chap during the dry winter months.

- This barrier also helps to protect the skin from environmental toxins and irritants.

- Unlike petroleum jelly, which is used in a large variety of beauty products, beeswax will not «suffocate» the skin, but rather, allow it to breathe while still providing a protective barrier.

- Beeswax helps to thicken homemade cosmetics and lotions because it is solid at room temperature.

- Beeswax also has Vitamin A, which improves hydration to the skin and promotes cell regeneration.

Beeswax has been used for thousands of years. Throughout history, beeswax has been found in some very interesting places and for some very fascinating reasons. In the tombs of Egypt, this wax was used to cover/plug the facial openings of the body as well as to close the incision opening from the embalming process. The Vikings used beeswax for the sewing of thick leather. It was also believed that passing the thread through beeswax would strengthen and preserve it. Beeswax has even been found in the ruins of Roman times. And, it

has been speculated that beeswax was used as a form of dental tooth filling in ancient times.

In Ukraine we have a long history of production of honey and other products. Nowadays beekeeping is a well-developed branch of agriculture in Ukraine. According to the different statistic information, from 2008 to the present-day Ukraine ranks first in the production of honey in Europe (with a gross collection of up to 75 thousand tons) and the third place in the world for the export of honey. In 2016 export of Ukrainian honey reached a record high of 57 thousand tons, which is 5.8 times more than exports in 2011. During January-August 2017, 36.9 thousand tons of honey were exported to almost 70 million USD. Therefore, we can conclude that beekeeping is developing, and hence there is the possibility of global use of beeswax in the cosmetic industry.

And some mathematics to improve that using beeswax is not making cosmetics so expensive.

Comparing the use of mineral oil and beeswax during the manufacture of cosmetics, it is necessary to consider the amount of substance necessary for the manufacture of the final product. In addition, it's worth remembering that the production of cosmetics using mineral oil, requires the addition of herbs and herbal extracts, which makes it safer and even more expensive. By the way, beeswax, by virtue of its characteristics and available vitamins, does not require the manufacturer to use additional substances to increase the useful properties of the final product.

To make 100g of cream, you need 65g of mineral oil, which in value will be 3.90 USD. Then, the cost of 10g of chamomile extract will be 1.26 USD. The total cost of mineral oil and chamomile extracts will be 5,16 USD.

The cost of beeswax in 100 g of the final product will be: 7.80 USD.

The difference in the value of the product will be approximately: $7.8 - 5.16 = 2.64$ USD. It makes no difference.

Conclusions. Having analyzed all of the above, one can conclude that the use of beeswax for the manufacture of cosmetics contributes to a slight increase in the cost, and, consequently, the price of the product; we increase the quality of the goods and make it competitive with imported products of production. In addition, we are taking a step back from oil and its products, which cannot but help protect the environment and, accordingly, our health.

After all, environmental protection from pollution during the processing of hydrocarbon raw materials is one of the prerequisites for sustainable development of the country.

And, of course, its great opportunity for domestic manufactures to create the own business in the new market and to increase national economics.

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ЕКОНОМІЧНА АКТУАЛЬНІСТЬ ВИКОРИСТАННЯ БДЖОЛИНОГО ВІСКУ У КОСМЕТИЧНІЙ ПРОМИСЛОВОСТІ

Одним із змінних напрямів розвитку промисловості є використання природних ресурсів, особливо в косметичній промисловості. Бджолиний віск є побічним продуктом медового виробництва. Бджільництво є унікальною фундаментальною галуззю. Іноземна компанія є основним виробником косметики в Україні, але фінансова криза допомагає змінювати пріоритети та замінювати головного виробника на національних виробників. Частка натуральної та органічної косметики сьогодні становить менше 1 відсотка в Україні та 10 відсотків у Німеччині. В Україні через п'ять років частка ринку натуральної та органічної косметики зростає до 3 відсотків. Це допоможе збільшити низький рівень кількості підприємств національного господарства. Порівняно переваги та недоліки мінеральних масел та бджолиного воску. Показано необхідність та важливість заміни мінерального масла бджолиним воском. Підраховано витрати на виготовлення косметики з натуральних та хімічних інгредієнтів. Показано сприятливість умов формування національних підприємств з виробництва натуральної косметики, зокрема з використання продукції вітчизняного виробництва.

Ключові слова: бджолиний віск; промисловість; косметична промисловість; витрати.

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ЭКОНОМИЧЕСКАЯ АКТУАЛЬНОСТЬ ИСПОЛЬЗОВАНИЯ ПЧЕЛИНОГО ВОСКА В КОСМЕТИЧЕСКОЙ ПРОМЫШЛЕННОСТИ

Одним из переменных направлений развития промышленности является использование природных ресурсов, особенно в косметической промышленности. Пчелиный воск является побочным продуктом медового производства. Пчеловодство является уникальной фундаментальной отраслью. Иностранная компания является основным производителем косметики в Украине, но финансовый кризис помогает менять приоритеты и заменять главного производителя на национальных производителей. Доля натуральной и органической косметики сегодня составляет менее 1 процента в Украине и, на пример, 10 процентов в Германии. В Украине через

пять лет доля рынка натуральной и органической косметики вырастет до 3 процентов. Это поможет увеличить низкий уровень количества предприятий национального хозяйства. Произведено сравнение преимуществ и недостаток минеральных масел и пчелиного воска. Показана необходимость и важность замены минерального масла пчелиным воском. Подсчитано расходы на изготовление косметики из натуральных и химических ингредиентов. Показано благоприятность условий формирования национальных предприятий по производству натуральной косметики, в частности по использованию продукции отечественного производства.

Ключевые слова: пчелиный воск; промышленность; косметическая промышленность; расходы.

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