

## THE ASSESSMENT OF THE IMPORT SUBSTITUTION POTENTIAL OF FOOD PRODUCTS WITH LOW SELF-SUFFICIENCY IN RA

Hovhannes Simon Asatryan  
Meri Gagik Manucharyan

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**Introduction.** Ensuring food security is one of the important cornerstones that lead to increasing the level of economic security of the country, the alleviation of the problem of poverty, etc. Taking into account the unique geopolitical characteristics of Armenia it is of urgent importance to provide high level of food security. **The relevance** of the topic lies in the fact that the sufficiency level of some main food products is very low and is decreasing throughout years. So the situation must be comprehensively studied and the possibilities of import dependency reduction must be revealed.

**The main purpose** of this article is to assess the import substitution potential of food products that have low sufficiency levels. For that purposes following **problems** were solved.

- First were determined the main food groups with low self-sufficiency,
- Then group by group was discussed and evaluated the state of their imports and alternatives for domestic production.

**Literature review.** According to Johnson and Schnitker, countries are divided into 3 groups based on their food policy.

1. Self-sufficient countries – These countries try to protect and promote their agricultural production by implementing guaranteed prices, import restrictions, etc. A number of European countries, Russia, China, and India are vivid examples of such countries striving for self-sufficiency. In fact, more than half of the world's population lives in similar countries.
2. Net importers – Such countries import the bulk of their food supply. Japan and several other small countries are prime examples. This is due to economic inefficiency and scarcity of arable lands. This group includes a relatively small part of the world's population.
3. Net exporters – In these countries, the production of staple food exceeds its demand. As a result, state implements such agricultural development and pricing policies that promote exports. Prominent examples are USA, Canada, etc<sup>1</sup>.

In the context of food security, it is mandatory for countries to be either net exporters or at least self-sufficient. However, due to objective economic and climatic circumstances, many countries simply cannot provide such state of food security. Armenia is one of them. It is a country with scarce resources, scarce arable lands, which

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<sup>1</sup> Johnson D., Schnitker. A. (1974): U.S. Agriculture in a World Context; Policies and Approaches for the Next Decade. New York: Praeger. Print.

creates very serious obstacles for the production of main food products. Additionally, current climate change is reversing previous progress in the fight against hunger and malnutrition, with arid and semi-arid areas and landlocked countries being the most affected<sup>1</sup>.

In terms of food security of Armenia, new challenges have been emerged in connection with new geopolitical developments. In particular, the Russian-Ukrainian war has made the search for new grain markets and increasing its self-sufficiency level an urgent problem<sup>2</sup>. The main indicator of food security is the level of food self-sufficiency. According to the Ministry of Economy of RA, the analysis of the national food balance of Armenia proves that the self-sufficiency level of vitally important food products was about 52.5% (the data of 2019)<sup>3</sup>. This level of self-sufficiency indicates that RA is a net importer.

**Methodology.** The data necessary for the research were obtained from the publications and yearbooks of the Statistical Committee of RA. The following methodology was used in order to evaluate the substitution potential of imports: first, the food products with self-sufficiency below 80% were determined, then the state of production and the main directions of import were discussed, ending with the evaluation of the possibilities of their local production.

**Discussion.** In Armenia, a high level of self-sufficiency is ensured in terms of potatoes, vegetables, fruits, grapes, mutton and goat meat, eggs and fish, an above-average level of self-sufficiency is provided in terms of beef and pork, milk and dairy products. With wheat, leguminous crops, vegetable oil, poultry and pork the self-sufficiency level remains low (table 1).

*Table 1*

**The self-sufficiency level of food products in RA<sup>4</sup>**

Name of food	Self-sufficiency level, %				
	2017	2018	2019	2020	2021
Wheat	33.2	31.5	25.9	24.4	23.3
Rye	39.6	65.6	35.7	34.2	26.0
Barley	83.8	85.3	70.3	74.4	49.1
Oats	87.9	85.6	83.4	87.8	80.2
Maize	17.6	9.8	6.5	8.0	8.4

<sup>1</sup> Manucharyan M., The influence of the climatic factor on the food security of RA, The Contemporary Issues of Socio-Economic Development in the Republic of Armenia, Scientific journal of articles, 2022 (2), p. 142-153.

<sup>2</sup> Muradyan M., Food security as a factor of improving living standards of the RA population, The Contemporary Issues of Socio-Economic Development in the Republic of Armenia, Scientific journal of articles, 2022 (1), p. 217-234.

<sup>3</sup> Source: <https://www.mineconomy.am/en/page/1333>, last accessed on December 2022

<sup>4</sup> Source; Statistical Committee of Republic of Armenia. (2022). "Food Security and Poverty, January - December 2021" online database. Retrieved from: [https://www.armstat.am/file/article/f\\_sec\\_4\\_2021\\_3.pdf](https://www.armstat.am/file/article/f_sec_4_2021_3.pdf), ( date of access; 17.01.2023)

Rice	0.0	0.0	0.0	0.0	0.0
Other cereals	98.1	82.9	63.4	72.2	65.9
Potato	102.6	102.6	101.1	101.1	111.7
Vegetables	102.5	104.7	102.4	103.9	105.6
Fruits	109.7	108.9	104.0	98.2	114.4
Legumes	49.7	38.6	38.2	37.3	37.3
Vegetable oil	4.3	2.2	1.5	0.9	0.6
Sugar	65.2	68.6	73.0	38.0	33.9
Eggs	98.2	99.5	100.0	100.3	98.8
Milk	91.2	86.8	84.3	82.0	87.7
Beef	91.5	89.2	90.4	87.3	92.2
Pork	58.0	53.3	55.5	45.1	53.2
Mutton and goat meat	138.9	128.6	113.8	100.4	100.4
Poultry	22.5	26.6	21.7	23.9	26.7
Fish	101.8	109.0	113.1	148.4	143.7
Grape	106.4	104.8	103.6	108.0	106.7

The food security implies that the self-sufficiency level of main food products must be at least 80%. In other words, the 80/20 ratio must be achieved, when at least 80% of the food demand is met at the expense of local production, and the rest- 20% is imported. In Table 2 we have distinguished those food groups whose self-sufficiency is below 80%.

It turns out that following problems exist regarding food self-sufficiency:

- The self-sufficiency of some main food products is very low. In particular, wheat, sugar, poultry and pork, vegetable oil, etc,
- Over the past five years, self-sufficiency levels have decreased for almost all food groups.

According to the data of Table 2, a very dangerous situation has been created regarding self-sufficiency of wheat. In 2017 self-sufficiency of wheat was 33.2%; in 2021 it decreased to 23.3%. A similar negative scenario was recorded for other types of food as well. We can state that in the last five years, the state of food security in Armenia not only did not improve, but also showed negative decreasing trends.

*Table 2*

**Food products with medium and low level of self-sufficiency in RA<sup>1</sup>**

Name of food	Self-sufficiency level, %				
	2017	2018	2019	2020	2021
Wheat	33.2	31.5	25.9	24.4	23.3
Rye	39.6	65.6	35.7	34.2	26.0
Maize	17.6	9.8	6.5	8.0	8.4

<sup>1</sup> Source; Statistical Committee of Republic of Armenia. (2022). "Food Security and Poverty, January - December 2021" online database. Retrieved from:

[https://www.armstat.am/file/article/f\\_sec\\_4\\_2021\\_3.pdf](https://www.armstat.am/file/article/f_sec_4_2021_3.pdf), ( date of access; 17.01.2023)

<b>Rice</b>	0.0	0.0	0.0	0.0	0.0
<b>Legumes</b>	49.7	38.6	38.2	37.3	37.3
<b>Vegetable oil</b>	4.3	2.2	1.5	0.9	0.6
<b>Sugar</b>	65.2	68.6	73.0	38.0	33.9
<b>Pork</b>	58.0	53.3	55.5	45.1	53.2
<b>Poultry</b>	22.5	26.6	21.7	23.9	26.7

Within the framework of the research, the assessment of import substitution potential of following food products was performed.

- Wheat,
- Legumes,
- Vegetable oil,
- Sugar,
- Milk,
- Beef,
- Pork,
- Poultry.

**Wheat.** Wheat is represented in foreign trade under code 1001 and includes durum wheat, seed, a mixture of wheat and rye, etc.

*Table 3*

**The main directions of wheat import in 2017-2021, thousand kg<sup>1</sup>**

<b>Country</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>Russia</b>	297 141	60025	231 610	349 387	268 528
<b>Georgia</b>	3 699	1989	2 458	-	1468
<b>Non-recognized territories</b>	208	149	641	924	658
<b>Ukraine</b>	-	-	17 398	-	-
<b>Belarus</b>	-	-	200	-	-
<b>Poland</b>	0.002	-	-	-	-
<b>USA</b>	-	695	-	-	-
<b>Total</b>	301 050	62857	252 307	350 311	270 654

Wheat is of exceptional importance. Wheat and wheat flour are imported to Armenia mainly from the Russian Federation (about 92% of wheat and 97% of wheat flour). Thus, the Russian Federation has a dominant position in the RA wheat market. This means that Armenia needs to find an alternative way to meet its domestic demand for wheat. Such alternative can be Kazakhstan. Kazakhstan's level of wheat self-sufficiency is quite high. Moreover, Kazakhstan is not only able to meet the domestic demand for wheat, but also has a good position in the global wheat market. 3% of the international wheat market is provided by this country. Therefore, Kazakhstan can be

<sup>1</sup> Source: <https://comtrade.un.org/data>, last accessed on November 2022

considered as an alternative route for importing wheat<sup>1</sup>. In general, the low level of wheat self-sufficiency and the dependence on imports indicate the strategic importance of increasing the volumes of domestic wheat production. Armenia has the potential to increase wheat self-sufficiency. By increasing the average yield, using high-yield wheat varieties, as well as cultivating unused arable land, it is possible to greatly increase the gross harvest of wheat thus improving the self-sufficiency of wheat. To promote domestic wheat and cereals production Government of Armenia implements following state support programs:

- State assistance program for promotion of autumn wheat production in the RA,
- State assistance program to promote production of spring bread grains, grass-and legumes, and food grains in the RA<sup>2</sup>.

**Legumes.** Legumes are represented in foreign trade under code 0713, which opens as "Dried leguminous vegetables, shelled, whether or not skinned or split". This group includes peas, chickpeas, lentils, beans, etc. Import data of this group is presented in Table 4.

*Table 4*

**The main directions of legumes imports, kg<sup>3</sup>**

Country	2017	2018	2019	2020	2021
Russia	3,328,262	4,207,965	5,010,073	5,824,236	4,803,476
Uzbekistan	309,150	243,100	279,250	199,918	341,375
Non-recognized territories	162,290	-	-	-	-
Argentina	161,850	217,759	-	-	107,837
Kirgizstan	120,000	202,050	110,000	177,906	-
India	-	177,675	283,805	150,980	168,210
Canada	-	-	127,212	202,307	107,837
Total	4,502,934	5,404,515	5,955,574	6,974,958	5,677,498

Legumes are mainly imported from Russia. Uzbekistan also has a fairly large share in import structure. In various years imports were also made from Argentina, India, Canada, etc. Unfortunately, it should be noted that import volumes have increased and self-sufficiency has dropped to 37% instead of the previous 61.3%. Cultivation of legumes in RA is conditioned by less favorable climatic conditions and scarce arable lands. That is why it is unreasonable to expect high self-sufficiency in terms of legumes in Armenia. However, the self-sufficiency level of previous years shows that there is a potential to bring self-sufficiency of legumes closer to 80%. In that regard, the role of state intervention is strongly emphasized. First of all, the forecast of the market supply

<sup>1</sup> Muradyan M., Food security as a factor of improving living standards of the RA population, The Contemporary Issues of Socio-Economic Development in the Republic of Armenia, Scientific journal of articles, 2022 (1), p. 217-234.

<sup>2</sup> Source: <https://mineconomy.am/en/page/1338>, last accessed on December 2022

<sup>3</sup> Source: <https://comtrade.un.org/data>, last accessed on November 2022

in terms of local production should be carried out annually. According to which it will become clear how much the domestic production will meet the national demand. Based on that, the Government should implement support programs aimed at promoting the cultivation of legumes, like provision of seeds, lending production means (money, materials, seeds, etc.) with preferential terms. Such prerequisites should be created for the domestic producer, in which case the legumes imported from abroad will not be economically more profitable, and the domestic production will be profitable. If we are guided by the theory of comparative advantages in foreign trade, it is more beneficial to import legumes, because the natural and economic conditions of RA are less favorable for their production. However, if we take into account the fact that legumes are an important part of our population's diet and have primary nutritional value, then their self-sufficiency should be increased, at least approaching the threshold of 80%.

**Vegetable oil.** Vegetable oil includes soybean, peanut, olive, palm, sunflower and other oil products. The codes used in foreign trade start from 1507. These coding also includes vegetable oils used for technical purposes. So in Table 5 we presented data provided by Statistical Committee, and it includes imports of vegetable oil used only for food.

*Table 5*

**Imports of vegetable oil, thousand kg<sup>1</sup>**

	2017	2018	2019	2020	2021
<b>Vegetable oil</b>	26 179.4	28 249.5	28 094.1	30 615.8	27 182.4

Essentially, the import volumes of vegetable oil have not changed significantly. It is mainly imported from Russia, Italy and Ukraine. Sunflower oil is mainly imported from Russia and Ukraine, and olive oil from Italy. In terms of vegetable oil, local production has never stood out with its large volumes, and the main reason for this is the unfavorable natural and economic conditions of our country. Specifically, it is possible to produce sunflower and corn oil in RA. However, we do not have enough arable land to cultivate sunflowers and corn, besides; their cultivation is not economically beneficial for Armenia. In such a case, in the context of ensuring food security, we simply suggest that the countries importing vegetable oil should be diversified, that is, one should try to satisfy the national demand at the expense of different countries, rather than importing the lion's share of the used vegetable oil from the Russian Federation. Otherwise, in other cases, self-sufficiency with local production is impossible.

Local production of soybean oil is an alternative option for replacing the import of vegetable oil. Local researchers believe that Armenia has enough potential for the formation of local soybean oil production. According to the results of studies carried out

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<sup>1</sup> Source; Statistical Committee of Republic of Armenia. (2022). "Food Security and Poverty, January - December 2021" online database. Retrieved from: [https://www.armstat.am/file/article/f\\_sec\\_4\\_2021\\_3.pdf](https://www.armstat.am/file/article/f_sec_4_2021_3.pdf) ( date of access; 17.01.2023)

by the “Agriculture Scientific Center” SNCO, it is possible to ensure soybean cultivation with a yield of 28-36 c/ha in our country. This will allow to increase the self-sufficiency level of vegetable oil to a certain extent<sup>1</sup>.

**Milk and beef.** We will discuss these two food groups together, because the raw materials needed for their production is provided by the same branch of the economy - beef farming. The self-sufficiency of milk in Armenia is above 80%. Though in recent years the indicator has somewhat decreased, but it still above the 80% threshold. Food products of this group are presented in foreign trade under codes 0401-0406. Milk food group includes data on fresh milk, as well as butter, milk powder, yogurt, sour cream, , cheese, ice cream and other dairy products. According to the data published by the Statistical Committee of RA, in the previous five years we mainly imported milk powder, condensed and sugared milk, butter and cheese. This means that RA mainly imports dairy products in the finished form (not the raw materials). Butter is mainly imported from New Zealand, Finland, Belarus and Ukraine. Milk (of all types) is imported from Iran, Russia, Belarus and Ukraine. Cheese is imported from Russia, Iran and New Zealand.

*Table 6*

**The imports of milk and dairy products, thousand kg<sup>2</sup>**

	2017	2018	2019	2020	2021
<b>Milk (of all types)</b>	7 753.6	7 479.7	8 283.2	9 421.7	9 484.9
<b>Butter</b>	4 046.3	3 979.9	3 625.6	4 575.3	2 590.5
<b>Cheese</b>	1 270.8	1 259.3	1 342.5	1 521.4	1 782.1

Number of state support programs are implemented in RA that directly and indirectly affect the development of beef farming:

- State support program of “Development of cattle breeding in Armenia, 2019-2024”,
- State support program of “Construction or reconstruction of small and medium “smart” cattle houses and state assistance for their technology provision”,
- State support program of “Subsidizing the interest rates on loans provided to the agricultural processing sector for purveyance (acquisition) of agricultural raw materials”<sup>3</sup>.

All these programs are positive incentives for the further development of beef farming and increasing the self-sufficiency of beef and milk. Taking into account the fact that the vast majority of agricultural land in RA is allocated to pastures and natural fodder, we believe that there is a realistic opportunity to further increase the gross output of the beef industry. The main problems of the development of cattle breeding in

<sup>1</sup> Harutyunyan K., et al, Assessment and modeling of food security in the short and long term,- Yerevan. Tntesaget "Amberd series 48", 2021, p. 51, 41-44:

<sup>2</sup> Source; Statistical Committee of Republic of Armenia. (2022). “Food Security and Poverty, January - December 2021” online database. Retrieved from: [https://www.armstat.am/file/article/f\\_sec\\_4\\_2021\\_3.pdf](https://www.armstat.am/file/article/f_sec_4_2021_3.pdf) ( date of access; 17.12.2022)

<sup>3</sup> Source: <https://mineconomy.am/en/page/1338> , accessed on May 2022

RA are related to the fodder base. Ensuring the efficient use of pastures and natural fodder is very important, because in some years due to drought, a sharp decrease in the fodder base is observed. It is very important that in parallel with the existing programs the Government develops a comprehensive action plan, which will regulate the effective use of pastures. The further development of pedigree work is also very important for the growth of gross output of beef and milk.

Beef is one of the few products that have high level of self-sufficiency. In international trade it is represented under codes 0201 and 0202. According to the data of the Statistical Committee of RA, the volume of beef imports has nearly doubled over the past five years. It is due to the fact that its self-sufficiency has decreased, but utilization has increased. So the gap was filled in the expense of imports. Beef is mainly imported from India, Brazil, Ukraine and Russia.

*Table 6*

**The imports of beef, thousand kg<sup>1</sup>**

	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>Beef</b>	2 715.6	4 869.6	5 190.2	3 882.5	4 583.6

There are sufficient prerequisites for increasing the self-sufficiency of beef in Armenia. Beef farming has development potential and a number of state support programs are being implemented in this direction. As we have already mentioned above, if applied the right agrarian policy, it is possible to achieve an increase of self-sufficiency of milk and beef.

**Pork.** In Armenia pork is widely used in food, though it has a decreasing and low level of self-sufficiency in Armenia. If in 2017 the self-sufficiency of pork was 58%, in 2021 it reduced to 53.2%. Since the consumption of pork in the daily diet has increased, the demand of pork in Armenia increased too. This means that dependence on imports increased too, because local production did not cover the excess of demand. The dynamics of pork import is presented in Table 7.

*Table 7*

**Import of pork in RA in 2017-2021, thousand kg<sup>2</sup>**

	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>Pork</b>	7 027.2	8 899.4	8 723.3	5 920.0	9 697.5

Pork is represented in international trade under code 0203. Pork is mainly imported to Armenia from Brazil, Canada, Russia, Denmark, etc. Increasing the self-sufficiency of this type of food can be ensured through the development of pig breeding

<sup>1</sup> Source; Statistical Committee of Republic of Armenia. (2022). "Food Security and Poverty, January - December 2021" online database. Retrieved from:

[https://www.armstat.am/file/article/f\\_sec\\_4\\_2021\\_3.pdf](https://www.armstat.am/file/article/f_sec_4_2021_3.pdf) ( date of access; 17.12.2022)

<sup>2</sup> In the same place.



in RA. The main problem with this part is the fodder base. Most of the compound fodder and the raw materials used fodder (cereal crops) are imported, which additionally increases the cost of the pork and causes other difficulties. In order to solve the problem of the development of pig breeding, it is necessary to develop domestic production of fodder first. In RA, the state agrarian policy should give a boost to the promotion of fodder production, which is vital for the whole sector of animal husbandry. All types of fodder, combined fodder, additives and other nutritional mixtures should be produced in the Republic of Armenia and be available, as that availability will contribute to the development of not only pig breeding, but also poultry farming and partially beef farming. It is noteworthy that, compared to cattle breeding, there are no major problems in terms of pedigree work in pig breeding and it is conducted in a more industrial way, in closed areas. Agriculture experts insist that state support must be implemented in following directions:

- Purchasing pedigree animals of high forage breeds from abroad,
- Compensating the costs of artificial insemination of sows,
- Promoting the domestic production of fodder<sup>1</sup>.

**Poultry.** Poultry has a rather large share in the structure of dietary energy of consumed food, and the volume of its consumption has been increasing in recent years<sup>2</sup>. However, Armenia has a serious problem of poultry self-sufficiency, because not only has the index decreased over the previous five years, but also its level is very low: in 2021 it was only 26.7%. At the same time the imports of poultry increased (Table 8). The import of poultry is represented under code 0207 and includes data on slaughter-weight poultry (chickens, roosters, turkeys, ducks, geese and other domestic birds). Poultry is mainly imported from Ukraine, Russia, USA, Brazil, etc.

*Table 8*

**The imports of poultry, thousand kg<sup>3</sup>**

	2017	2018	2019	2020	2021
<b>Poultry</b>	35 345.6	32 875.8	43 587.6	34 142.3	38 454.9

The self-sufficiency of poultry is largely conditioned with the development of poultry farming in RA and the increase of its gross output. Despite the fact that the sector in RA is industrialized, the latest technologies are used and more than 100 percent self-sufficiency of eggs is provided, the production volumes are not enough to

<sup>1</sup> Bayadyan A., The problems of the development of the agricultural production of The Republic of Armenia and the ways of their solution, 2013, p. 64

<https://library.anau.am/images/stories/grqer/Gyughatntesutyun/agroveramshakum.pdf>

<sup>2</sup> Asatryan H., Analysis of the RA national food balance, Proceedings of I International Scientific and Practical Conference, London, United Kingdom, <https://sci-conf.com.ua/wp-content/uploads/2022/09/SCIENCE-AND-INNOVATION-OF-MODERN-WORLD-28-30.09.22.pdf>

<sup>3</sup> Source; Statistical Committee of Republic of Armenia. (2022). "Food Security and Poverty, January - December 2021" online database. Retrieved from: [https://www.armstat.am/file/article/f\\_sec\\_4\\_2021\\_3.pdf](https://www.armstat.am/file/article/f_sec_4_2021_3.pdf) ( date of access; 17.12.2022)

secure high level of self-sufficiency for poultry. Like in the case of pig breeding, there is a problem of fodder, combined fodder, additives and other nutritional mixtures. Since Armenia does not possess sufficient local production of fodder, it is mainly imported, which raises the costs for domestic poultry production and creates additional obstacles for producers. According to S. Avetisyan the local supply of poultry and eggs is provided by poultry factories operating on an industrial basis. Their further expansion and the growth of production volumes require the increase in the volumes of locally produced grain fodder<sup>1</sup>.

**Sugar.** The self-sufficiency of this important type of food in RA has decreased drastically in recent years. In Armenia sugar is mainly produced at the expense of imported raw materials, but in 2016, 91.4% self-sufficiency was recorded. Already in 2020, the indicator has been reduced more than 2 times, reaching 38%. Local sugar production has seen ups and downs since independence. According to A. Bayadayan “Local production of sugar was delayed for a long time due to the relatively high profitability of imports, monopoly in the market, etc.” According to the calculations, the full price of 1 kg of sugar in RA would be 180 AMD, not including secondary products<sup>2</sup>. In the 2010s, the local production was revived after the factory of the Akhuryan community was put into operation<sup>3</sup>. However, today there is again a problem of sugar self-sufficiency and the volume of sugar imports has doubled in 2020 compared to 2017 (table 9).

*Table 9*

**The imports of sugar, thousand kg<sup>4</sup>**

	2017	2018	2019	2020	2021
<b>Sugar</b>	23 926.7	23 746.3	19 778.3	43 396.6	47 724.4

We mainly import sugar and hnu raw materials from Brazil, Russia, Ukraine, etc. Taking into account the conducted researches, we can say that there is an unrealized potential in Armenia in terms of ensuring sugar self-sufficiency. According to the calculations, 15,000 ha of arable land is needed for the production of 100,000 tons of sugar, while in the Shirak and Lori marzes of the RA, the arable land left out of circulation in 2013 consisted of 60,000 ha. In other words, there is sufficient land fund in RA to cultivate sugar beet. The problem lies in the fact that it is necessary to decide for which crop the existing arable lands should be used and whether it is worth starting

<sup>1</sup> Avetisyan S.S., Agriculture and agro-processing of Armenia, Yerevan, 2010, p. 68  
<https://library.anau.am/images/stories/grqer/Gyughatntesutyun/agroveramshakum.pdf>

<sup>2</sup> Bayadayan A., The problems of the development of the agricultural production of The Republic of Armenia and the ways of their solution, 2013, p. 64-67  
<https://library.anau.am/images/stories/grqer/Gyughatntesutyun/agroveramshakum.pdf>

<sup>3</sup> Avetisyan S.S., Agriculture and agro-processing of Armenia, Yerevan, 2010, p. 109  
<https://library.anau.am/images/stories/grqer/Gyughatntesutyun/agroveramshakum.pdf>

<sup>4</sup> Source; Statistical Committee of Republic of Armenia. (2022). “Food Security and Poverty, January - December 2021” online database. Retrieved from:  
[https://www.armstat.am/file/article/f\\_sec\\_4\\_2021\\_3.pdf](https://www.armstat.am/file/article/f_sec_4_2021_3.pdf) ( date of access; 17.12.2022)

local production of sugar, if its import is more economically beneficial. In addition, it is important to note that there are other products which can replace sugar (honey, aspartame, saccharin, etc.) if necessary in case of its deficit and also are more preferable from a health point of view<sup>1</sup>.

**Scientific novelty.** The scientific novelty of this article lies in the fact that by taking into account the analysis of import substitution potential of main food products with vulnerable self-sufficiency the possibilities of import replacement at the expense of domestic production was assessed. Also the main directions of growth of domestic production were indicated. The obtained results can be used for the development of conceptual documents and strategies of RA food security.

**Conclusions.** As a result of the conducted research, we come to the conclusion that there is a certain potential for increasing the self-sufficiency of wheat, legumes, milk and dairy products, beef, pork and poultry. In this context, the main obstacle is the scarcity of arable lands, as a result of which it is impossible to ensure high self-sufficiency in terms of some important food products (wheat, legumes). However, there is a potential to at least bring the sufficiency of these products closer to 80% in RA. The article presents the possibilities of using this potential in terms of individual food products. In particular, the use of competent and scientifically sound state policy is highly important. It is necessary to develop a food security strategy, in which detailed action programs aimed at promoting domestic production will be included.

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## ՑԱԾՐ ԻՆՔՆԱԲԱՎՈՒԹՅԱՆ ՄԱԿԱՐԴԱԿ ՈՒՆԵՑՈՂ ՊԱՐԵՆԱՅԻՆ ԱՊՐԱՆՔՆԵՐԻ ՆԵՐՄՈՒԾՄԱՆ ՓՈԽԱՐԻՆՄԱՆ ՆԵՐՈՒԺԻ ԳՆԱՀԱՏՈՒՄԸ ՀՀ-ՈՒՄ

### Հովհաննես Սիմոնի Ասատրյան Մերի Գագիկի Մանուչարյան

**Համառոտագիր:** Պարենային անվտանգության ապահովումը այն կարևոր հիմնաքարերից է, որը հանգեցնում է երկրի տնտեսական անվտանգության մակարդակի բարձրացմանը, աղքատության հիմնախնդրի մեղմացմանը և այլն: Հաշվի առնելով Հայաստանի ուրույն աշխարհաքաղաքական առանձնահատկությունները, պարենային ապահովության բարձր մակարդակի ապահովումը ունի հրատապ նշանակություն: **Թեմայի արդիականությունը** կայանում է նրանում, որ որոշ հիմնական պարենային ապրանքների ինքնաբավության մակարդակը շատ ցածր է և տարիների ընթացքում նվազում է: Ահա թե ինչու իրավիճակը պետք է համակողմանի ուսումնասիրվի և բացահայտվեն այդ ապրանքների ներմուծման ներմուծման փոխարինման հնարավորությունները: Սույն հոդվածի **հիմնական նպատակն** է գնահատել ցածր ինքնաբավության մակարդակ ունեցող պարենային ապրանքների ներմուծման փոխարինման ներուժը: Այդ նպատակով հետազոտության շրջանակներում դրվել են հետևյալ **խնդիրները**.

- Նախ որոշվել են ցածր ինքնաբավություն ունեցող պարենի հիմնական տեսակները,
- Այնուհետև խումբ առ խումբ քննարկվել և գնահատվել է դրանց ներմուծման վիճակը և տեղական արտադրության հնարավորությունները:

Հոդվածի **գլխական նորությունը** կայանում է նրանում, որ հաշվի առնելով խոցելի ինքնաբավությամբ հիմնական պարենային ապրանքների ներմուծման փոխարինման ներուժի վերլուծությունը՝ գնահատվել են ներմուծման փոխարինման հնարավորությունները՝ տեղական արտադրության հաշվին, ինչպես նաև նշվել

են տեղական արտադրության աճի հիմնական ուղղությունները: Ստացված արդյունքները կարող են օգտագործվել ՀՀ պարենային անվտանգության հայեցակարգային փաստաթղթերի և ռազմավարությունների մշակման համար:

**Բանալի բառեր.** պարենային անվտանգություն, սննդամթերքի ինքնաբավություն, պարենային ապրանքներ, ներմուծում փոխարինման ներուժ, ցորեն, շաքարավազ, խոզի միս, բուսական յուղ, տավարի միս:

## ОЦЕНКА ПОТЕНЦИАЛА ИМПОРТОЗАМЕЩЕНИЯ ПРОДОВОЛЬСТВЕННЫХ ТОВАРОВ С НИЗКОЙ САМООБЕСПЕЧЕННОСТЬЮ В РА

Оганнес Симонович Асатрян  
Мери Гагиковна Манучарян

**Аннотация.** Обеспечение продовольственной безопасности является одним из важных факторов, ведущих к повышению уровня экономической безопасности страны, смягчению проблемы бедности и т.д. Учитывая уникальные геополитические особенности Армении, крайне важно обеспечить высокий уровень продовольственной безопасности.

**Актуальность** темы заключается в том, что уровень обеспеченности некоторыми основными продуктами питания очень низок и с годами снижается. Поэтому необходимо всесторонне изучить ситуацию и выявить возможности зависимости от импорта. Основной целью данной статьи является оценка потенциала импортозамещения продуктов питания, имеющих низкий уровень обеспеченности. Для этого были решены следующие задачи:

- Сначала были определены основные группы продуктов питания с низкой самообеспеченностью,
- Затем по группам обсуждалось и оценивалось состояние их импорта и альтернатив для отечественного производства.

**Научная новизна** данной статьи заключается в том, что с учетом анализа потенциала импортозамещения основных продуктов питания с уязвимой самообеспеченностью - оценены возможности импортозамещения за счет отечественного производства, а также определены основные направления роста отечественного производства. Полученные результаты могут быть использованы для разработки концептуальных документов и стратегий продовольственной безопасности РА.

**Ключевые слова:** продовольственная безопасность, само обеспечение продовольствием, продукты питания, потенциал замещения импорта, пшеница, сахар, свинина, растительное масло, говядина.

## THE ASSESSMENT OF THE IMPORT SUBSTITUTION POTENTIAL OF FOOD PRODUCTS WITH LOW SELF-SUFFICIENCY IN RA

Hovhannes Simon Asatryan  
Meri Gagik Manucharyan

**Abstract.** Ensuring food security is one of the important cornerstones that lead to increasing the level of economic security of the country, the alleviation of the problem of poverty, etc. Taking into account the unique geopolitical characteristics of Armenia it is of urgent importance to provide high level of food security. **The relevance** of the topic lies in the fact that the sufficiency level of some main food products is very low and is decreasing throughout years. So the situation must be comprehensively studied and import dependency possibilities must be revealed.

**The main purpose** of this article is to assess the import substitution potential of food products that have low sufficiency levels. For that purposes following **problems** were solved.

- First were determined the main food groups with low self-sufficiency,
- Then group by group was discussed and evaluated the state of their imports and alternatives for domestic production.

**The scientific novelty** of this article lies in the fact that by taking into account the analysis of import substitution potential of main food products with vulnerable self-sufficiency **the possibilities of import replacement at the expense of domestic production was assessed, and the main directions of growth of domestic production were indicated.** The obtained results can be used for the development of conceptual documents and strategies of RA food security.

**Keywords:** food security, self-sufficiency of food, food products, import substitution potential, wheat, sugar, pork, vegetable oil, beef.