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PROSPECTS OF IMPORT SUBSTITUTION OF SEMINAL WHEAT IN THE RUSSIAN FEDERATION BY BREEDS OF LOCAL SELECTION

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Abstract: *The goal of this research is to study prospects of import substitution of seminal wheat in the Russian Federation by breeds of the local selection. In order to achieve this goal, the following tasks were set and solved: volumes of the market related to the imported seeds of wheat in the Russian Federation were analyzed, opportunities of the import substitution of imported seeds by breeds of the local selection were defined, economic losses of agricultural goods producers using imported seeds in wheat production were estimated, and prospective areas of the development of import substitution of wheat seeds by breeds of the local selection were defined. The market of imported wheat seeds was analyzed by using the data of the customs statistics of the external trade of the Russian Federation. During the period from 2013 to 2015 prices and volumes of import of wheat seeds were analyzed, and tendencies of their change were revealed and analyzed. Within the estimation of opportunities of import substitution of wheat seeds by breeds of the local selection, the results of the selection process on the territory of the South Ural and West Siberia were analyzed. The breeds of the summer soft wheat created by the Omsk State Agrarian University together with scientific establishments of the South Ural and West Siberia were used as the object of the research. The material of the research is the yield, indicators of the plants productivity elements, ecological flexibility, and stability of wheat breeds. When defining prospective areas of the development of import substitution of wheat seeds by breeds of the local selection, we took into account the volumes of import, cost of import, price of analogous seeds of the local selection, and expenses for creating breeds of the local selection that can provide imported breeds with competition.*

Key words: *import substitution, breeds of local selection, selection and seed center, efficiency, wheat.*

1. INTRODUCTION

Import substitution of agricultural products belongs to the top priority areas of providing food safety of any country. The policy of import substitution development

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may be focused on solving tactical tasks of providing population with food that can be produced on the territory of the country. In this case this policy is adaptive and is stipulated by sharp fluctuations in external political relations between countries when traditional channels of imported food supply cease functioning due to any reasons. Differential characteristics of such policy of import substitution include its focus on solving the current problems and meeting the current needs of the population and processing food-manufacturing industry in imported food. As a rule, all measures taken by the government of the country within this policy have a short-term nature and are not focused on solving system problems related to the agriculture development and increase in its competitiveness because they are focused on fast solving of the problem on substituting imported goods by national ones. Finally such policy pursued for a long period of time can cause the degradation of agricultural areas and a catastrophic decrease in competitiveness because the creation of maximum favorable conditions of functioning for national agricultural goods producers due to artificial restrictions for foreign competitors generates no stimuli for the industry development.

The second area of import substitution development is the creation of maximum favorable conditions for developing national production not on the basis of artificial restrictions for importers but on the basis of the industry intensification, its transfer to the innovational way of development, and increase in the level of national goods producers' competitiveness. This policy of import substitution has a long-term nature. Positive results of its implementation will be observed in a few years.

Works of many authors are devoted to the issues related to developing import substitution and providing food safety. Researches in this area are conducted by Gogolev I.M., Gogolev M.V. (2015), Kopein V.V., Filimonova E.A. (2016), Shagaida N., Uzun V. (2016), Grigorian B.R., Kulagina V.I., Andreeva A.A. (2016), Nardin D.S., Shumakova O.V., Nardina S.A. (2016), Nardin, D.S., Pomogaev, V.M., Nardina, S.A. (2015). To a great degree successful development of import substitution of agricultural products depends on the conditions of functioning of the agroindustrial complex of the country, on the level of infrastructure development and improvement of institutes and tools of the industry development. These issues are revealed in the works of Shumakova, O.V., Kryukova, O.N. (2016), Stukach V.F., Shumakova O.V. (2004), Shumakova O.V. (2010). The development of import substitution on the cereal market is studied in the works of Alimov K.K. (2015), Vasilieva A. (2015), Lukin D.N., Andreec N.R. (2014).

In spite of serious interest of researchers in the problem related to the development of import substitution of agricultural products as a whole and in the cereal production in particular, there are still problems that require closer attention. One of such problems is the development of import substitution when producing the seminal material.

The cereal production is one of the main areas of agriculture and issues related to import substitution in it are always specially controlled. The basis of successful

development of the cereal production in the country is the existence of modern selected centers and modern seed farming with modern material and technical base.

The goal of this research is to study prospects of import substitution of seminal wheat in the Russian Federation by breeds of the local selection. In order to achieve this goal, the following tasks were set and solved:

1) Volumes of the market related to the imported seeds of wheat in the Russian Federation were analyzed,
2) Opportunities of the import substitution of imported seeds by breeds of the local selection were defined,
3) Economic losses of agricultural goods producers using imported seeds in wheat production were estimated, and
4) Prospective areas of the development of import substitution of wheat seeds by breeds of the local selection were defined.

2. METHODOLOGY

The volume of the market of imported wheat seeds was analyzed by using the data of the customs statistics of the external trade of the Russian Federation (Official website of the Unified Interdepartmental Informational and Statistical System, 2016). During the period from 2013 to 2015 prices and volumes of import of wheat seeds were analyzed, and tendencies of their change were revealed and analyzed.

Within the estimation of opportunities of import substitution of wheat seeds by breeds of the local selection, the results of the selection process on the territory of the South Ural and West Siberia were analyzed.

Three groups of maturity of breeds of the summer soft wheat created by the Omsk State Agrarian University together with scientific establishments of the South Ural and West Siberia were used as the object of the research. Breeds of the mid-season group include “Pamiati Azieva” (standard breed), “Cherniava 13”; breeds of the middle-early group of maturity include “Duet” (standard breed), “Niva-2”, “OmGAU 90”, “Sibakovskaya 3”, “Sonata”, “Saratovskaya 29”, “Tertsia”; breeds of the middle-late group of maturity include “Omskaya 35” (standard breed), “Sibakovskaya Yubileynaya”, “Erythrospermum 59” (Shamanin, V.P., Morgunov, A.I., Manes, J., (...), Chursin, A.S., Levshunov, M.A., 2011; Morgounov, A., Ablova, I., Babayants, O., (...), Shamanin, V., Syukov, V., 2011; Shamanin V.P., Petuhovskiy S.L., 2012).

The material of the research is the yield, indicators of the plants productivity elements, ecological flexibility, and stability of wheat breeds.

Breeds of summer soft wheat were tested and studied in accordance with the methodology of the state crop variety testing of agricultural crops (Fedin M.A., 1985).

Parameters of the ecological plasticity were calculated according to the method of estimating ecological plasticity of breeds of S. A. Eberhart and B. A. Rusell (1966) as interpreted by V.A. Zykin et al. (2008). The method is based on calculating two parameters: coefficient of linear regression (Bi) and dispersion (S2di). The first one shows the degree of the genotype reaction to changes of the conditions of the growing environment. It possesses the value of above and below the identity element, or it can be also equal to it. The higher the value of the linear regression coefficient (bi above 1) is, the more responsive the breed is. Such breeds require a high level of agricultural technique because in this case they will provide the maximum return. If the linear regression coefficient is below the identity element, the breed will react to changes of the environment conditions weaker than on average the whole set of breeds under study. It is better to use such breeds on the extensive ground where they will provide the maximum return with the minimum expenses. If the linear regression coefficient is equal to the identity element, the change of the breed yield entirely complies with the changes of the growing conditions.

When defining prospective areas of the development of import substitution of wheat seeds by breeds of the local selection, we took into account the volumes of import, cost of import, price of analogous seeds of the local selection, and expenses for creating breeds of the local selection that can provide imported breeds with competition.

3. RESULTS

3.1. Analysis of the Volume of Market of Imported Wheat Seeds in the Russian Federation

Table 1 shows the data that characterizes the volumes of wheat seeds import to the Russian Federation (Official website of the Unified Interdepartmental Informational and Statistical System, 2016).

The data from Table 1 witnesses about the considerable decrease in the volume of seeds import to the Russian Federation. In 2014 the seeds import decreased by 60% and was 115.6 thous. tons. The reduction is related to the fact that at the end of 2014 a number of countries introduced sanctions against the Russian Federation, and Russia reacted in the relevant way. As a result, in quarter 4 of 2014 the volume of seeds import

Table 1
Volumes of Import of Wheat Seeds to the Russian Federation in 2013-2015*

Indicator	*2013*	*2014*	*2015*	*2015 in % as to 2013*
Volume of import, thous, tons	321.6	115.6	31.4	9.8
Volume of import, mln. USD	79.0	25.3	5.4	6.8
Average annual rate of USD to RUB*	31.85	37.81	60.63	×
Volume of import, mln. RUB	2,514.6	955.9	325.8	13.0

*According to data from the official website of the Central Bank of the Russian Federation, 2016.

was only 20 tons, while in 2013 in quarter 4 they imported about 40% of the volume of all seeds imported to Russia for the whole 2013 (Figure 1). As a result of the continued sanction policy in relation to Russia and implementation of the responsive measures, the volume of wheat seeds import decreased down to 31.4 thous. tons and was only 10% as compared to 2013. The share of the imported seeds used in the production of cereals in the country reduced from 7% in 2013 to 0.6% in 2015. In the price of the wheat seeds import was USD 5.4 mln. or RUB 325.8 mln.

Quarter 4 of 2015 showed the inconsiderable increase in the volumes of wheat seeds import (Figure 1). According to the results of the first quarter of 2016 the volumes of the wheat import increased 6.6 times as compared to the similar period of 2015. Specialists relate the outlined growth of the wheat seeds import to the necessity to update the genetic variety of the cereal crops. Herewith, it is possible to solve this problem in another way. It is possible to provide for the increase in the genetic variety of cereal crops due to using new genetic materials when creating breeds of the local selection. According to the results of many years' researches in the area of genetics and selection of cereal crops at the P. A. Stolypin Omsk State Agrarian University Federal State Budgetary Educational Institution of Higher Professional Education and raising of more than 30 breeds of summer soft wheat, it was defined that the expenses for creating one breed made up about RUB 10 mln. (when using traditional methods of selection without using technologies of genetic modification of organisms). In 2015 the price of wheat seeds import to the Russian Federation was about RUB 330 mln. It would allow to raise 33 stable breeds of the local selection that could be used in the organic farming.

A sharp decrease in the wheat seeds import set a question to the goods producers. It is related to the substitution of the withdrawn volumes of seeds by breeds of the

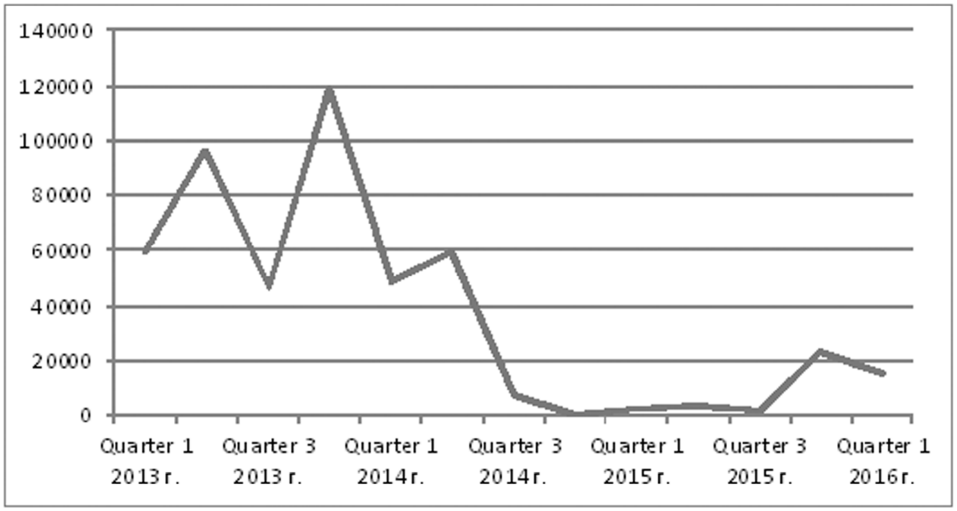

Figure 1: Dynamics of Import of Wheat Seeds to the Russian Federation in 2013 - 1st quarter of 2016, tons

local selection. Over the last 2 years on the governmental level the Russian Federation has harshly activated the work on developing its own selected and seed base, herewith, not only in the cereal area but also in the production of vegetables, fruits, and flowers.

In addition to material and technical resources, for successful development of selection and seeds farming, it is necessary to have research progress in this area in order to provide efficiency of all stages of the selection process.

3.2. Analysis of Possibilities of Import Substitution of Wheat Seeds by Sorts of Local Selection

The laboratory of genetics of cereal crops and selected centers of the P. A. Stolypin Omsk State Agrarian University Federal State Budgetary Educational Institution of Higher Professional Education creates and tests breeds meant for cultivating in the steppe and forest-steppe zones of the West and East Siberia, South Ural and Central Chernozemic band of Russia. These bands include 18 regions (Kurgan, Orenburg, Chelyabinsk, Kemerovo, Novosibirsk, Omsk, Tomsk, Tyumen, Irkutsk, Chita Regions, the Republic of Bashkortostan, the Altai Krai, the Republic of Altai, the Republic of Buryatia, Krasnoyarsk Krai, the Republic of Yakutia, the Republic of Tyva, the Republic of Khakassia). The area of wheat sowed in them makes up above 4% of the whole area sowed with wheat in the Russian Federation.

Table 2 shows the characteristic of the breeds of the local selection that are meant for cultivating in the above regions.

Table 2
Characteristics of Sorts of Local Selection Meant for Cultivating in Steppe and Forest-Steppe Zones of the Western and East Siberia, South Ural and Central Chernzemic Zones of Russia *

Breed	*Year of breed*	*Actual yield, t/ha*	*Productive tuft*	*Number of grains in a head, pcs.*	*Mass of 1,000 grains, g*	*Mass of grain from a head, g*	*Flexibility, B_i*	*Stability σdr^2*
"Pamiati Azieva"	2000	2.22	1.14	18.96	38.17	0.72	0.71	0.09
"Cherniava 13"	2000	1.83	0.91	16.38	35.83	0.65	0.82	0.10
"Duet"	2003	2.50	1.12	17.27	37.65	0.65	1.12	0.09
"Niva-2"	1997	1.78	0.99	16.53	36.06	0.60	1.24	0.09
"OmGAU 90"	2011	2.48	1.25	18.80	35.41	0.67	0.60	0.28
"Sibakovskaya 3"	1990	2.08	1.10	15.30	39.49	0.62	1.17	0.06
"Sonata"	2002	2.01	1.04	17.53	34.64	0.62	1.23	0.07
"Saratovskaya 29"	1957	2.05	1.11	16.13	37.64	0.61	0.71	0.16
"Tertsia"	1995	2.24	1.08	17.23	35.63	0.62	1.14	0.11
"Omskaya 35"	2004	2.43	1.10	18.10	37.80	0.71	1.04	0.16
"Sibakovskaya Yubileynaya"	2010	1.75	1.04	20.35	35.48	0.72	1.17	0.06
"Erythrospermum 59"	1994	2.21	1.07	18.11	36.09	0.65	1.08	0.06

*According to the data of the authors 'experiments.

The analysis of the data from Table 2 allows to make the following conclusions. The greatest yield (about 25 dt from 1 ha) in experiments was displayed by such breeds as "Duet" (25 dt/ha), "OmGAU 90" (24.8 dt/ha) and "Omskaya 35" (24.3 dt/ha) under the average yield from 12 to 20 dt/ha in the specified 18 regions. These breeds are adapted to natural and climate conditions, diseases and varmints of Siberia, South Ural and Central chernozemic band of Russia. Breeds "Duet" and "OmGAU 90" belong to the middle-early group of maturity but they do not compete with each other because "Duet" has high plasticity and to the greatest degree it suits for growing in farms that simultaneously comply with two basic conditions: 1) these farms have enough resources to provide a high level of agricultural technology, and 2) in a less degree (as much as it is possible in Siberia and Ural) the territory of these farms undergoes harsh changes of the natural and climate conditions of cereals cultivation. As this breed is not stable, any violation of the agricultural technology can cause a considerable decrease in the productivity and consequently economic efficiency of the cereal production.

The "OmGAU 90" breed also belongs to the middle-early group of maturity. However, unlike the 'Duet" breed, it is less flexible (it is the most inflexible breed of all specified in Table 2) and at the same time super stable (the most stable breed of all specified in Table 2). These characteristics of the breed mean that even under the conditions of unfavorable impact of natural and climate factors and relatively low level of agricultural technology, its productivity will remain relatively high. These features are especially valuable under conditions of the risky farming of the specified 18 regions of the Russian Federation, as well as unstable economic position of the majority of small and medium-sized agricultural enterprises of Siberia, Ural and Central chernozemic band of Russia.

The "Omskaya 35" breed belongs to the middle-late group of maturity and has a high level of plasticity. That is why this breed will be the most efficiently used on the high agricultural ground.

Thus, the conducted experiments showed a high potential of import substitution of foreign seeds by breeds of the local election. In regions there are breeds that can become the basis to increase the efficiency of the seeding area and more effective cereal production.

3.3. Promising Areas of Developing Import Substitution of Wheat Seeds by Sorts of Local Selection

The first prospective area of the development of import substitution of wheat seeds by breeds of the local selection is the use of the existing breeds in the process of cereal production. The availability of such breeds and selection and seed centers, which within a relatively short period of time are ready (1-2 years) to meet the need of agricultural goods producers in seeds of the first, second, and third reproduction, allows within a relatively short period of time to supersede importers from the market. The economic

Table 3
Direct Economic Effect from Import Substitution of Wheat Breeds by Sorts of Local Selection

Indicator	*2013*	*2014*	*2015*	*Total for 3 years*
Volume of import, thous. tons	321.6	115.6	31.4	468.6
Cost of import, RUB mln.	2,511.2	999.7	332.2	3,843.1
Price of 1 ton of import, RUB	7.8	8.6	10.6	27.0
Price of 1 ton of seeds of the local selection, RUB	5.8	6.6	8.6	21.0
Cost of the seminal cereal of the local selection (average economy RUB 2 thous. from each ton), RUB mln.	1,867.9	768.5	269.5	2,906.0
Direct economy of expenses when using breeds of the local selection, RUB mln.	643.2	231.2	62.7	937.2

effect from developing this area includes the economy of expenses of agricultural goods producers due to the lower price of seeds of the local selection breeds (in average RUB 2 thous. per ton). Table 3 shows the calculation of the direct economic effect from developing the first direction of import substitution.

The data from Table 3 point at the fact that during the period from 2013 to 2015 the economy of expenses of agricultural goods producers when purchasing seeds of the local selection could make up to RUB 940 mln. Besides, if in their production agricultural producers would have initially applied breeds of the local selection, Russian selection and seed centers could have obtained funds in the amount of about RUP 3 bln. during three years. Within the technologies of the traditional selection applied in Russia today, these funds would be enough to raise about 200 breeds of wheat. This area can be also considered as prospective for the development of import substitution of seeds when producing wheat. Raising new breeds of the local selection considerably increases the flexibility and perceptibility of the area to diseases and varmints as well as to unfavorable impact of the environmental factors. In addition, modern technologies applied in the selection are focused on the use of foreign selection material as well. It allows to solve the problem related to maintaining genetic variety without buying imported seeds.

One more component of the economic effect from developing import substitution of wheat seeds by breeds of the local selection is additional profit that can be earned due to increasing the wheat yield. In case of the average standard of seeding being 200 kg per 1 ha, the area of about 160 thous. ha was sowed with the wheat seeds (31.4 thous. tons) imported in 2015. Taking into account the fact that the use of breeds of the local selection will allow to increase the yield on average by 5 dt with the same expenses (that is proved by data from Table 2), the production of the additional volume of cereal can make up to 80 thous. tons. In case of the average price of RUB 6.5 thous. per 1 ton, it will make up the profit of about RUB 520 mln. Taking into account that the local breeds are adapted to diseases and varmints, and that they are resistant to the impact of unfavorable weather conditions, the probability to get the predicted economic effect can be estimated as high.

4. DISCUSSION

The obtained results of the research allow to make a conclusion about the presence of rather specific prospects of developing the import substitution of wheat seeds by breeds of the local selection. Herewith, it is necessary to understand that the above areas of import substitution development require close attention on the part of the state. On the one hand, it is stipulated by issues related to providing food safety and decreasing the dependence on import of the key areas of agriculture of the Russian Federation. On the other hand, without state support agricultural goods producers are not able to efficiently develop selection and seeding areas due to its high capital capacity and long terms of the investments return. Taking into account that the use of traditional methods of selection (without using technologies related to creating genetically modified organisms) allows to get and introduce a new breed to the market during not less than 8 years and requires the current expenses in the amount of RUB 10 mln. (when using the material and technical basis of the selection and seed center that has already been formed), this project will hardly interest every private investor. In this case, the support of state is especially required at the first stages of the selection process when creating the initial genetic material for new breeds.

The above areas of the development of import substitution of wheat seeds are focused on the long-term perspective and will contribute to the increase in the stability of the cereal area in the Russian Federation.

5. CONCLUSION

When considering issues related to import substitution of wheat seeds by breeds of the local selection, within this research the issues on organizing the selection process and seeds farming in the Russian Federation were not considered. Herewith, it is necessary to accurately understand that the agricultural goods producers' wish only to transfer to the nationally produced seeds may not be enough. The more efficiently the selection process and seeds farming in the area are organized, the more competitive national seeds are. This issue becomes especially actual taking into account possible necessity in the very near future to compete with foreign seeds obtained through using technologies of creating genetically modified organisms. Today the use of such seeds on the territory of the Russian Federation is prohibited by the law. However, the existing world and internal tendencies of the development of the regulatory framework point at the fact that relatively soon the legal restrictions can be removed. As a result, the national selection and seeds farming will have to equally compete with foreign producing companies. Herewith, the focus on traditional methods of selection allows to use national breeds in the development of the organic farming. This is an additional competitive advantage because it guarantees the quality of the final product.

Further researches within the development of import substitution of wheat seeds by breeds of the local selection will be focused on the stipulation of measures that

contribute to the increase in the efficiency of the selection process by using traditional technologies and increase in the efficiency of seeds farming.

References

Fedin, M.A., 1085. Metodika gosudarstvennogo sortoispytania selskohoziaystvennyh kultur [Methodology of State Testing of Agricultural Crops Sorts]. Moscow, pp: 257.

Zaykin, V.A., I.A. Belan, V.S. Yusov and S.P. Korneva, 2008. Metodika rascheta parametrov ekologicheskoy plastichnisti selskohoziaystvennyh rasteniy po discipline "Ekologicheskaya genetika" [Methodology of Calculating Parameters of Ecological Plasticity of Agricultural Plants on the Discipline "Ecological Genetics"]. Omsk, p. 36.

Eberhart, S.A. and W.A. Russell, 1966. Stability Parameters for Comparing Varieties. Corp Sci., 6 (1): 40.

Nardin, D.S., O.V. Shumakova and S.A. Nardina, 2016. Perspektivnye napravleniya razvitiya importozameshcheniya selskohoziaystvennogo proizvodstva v APK Omskoy oblasti [Prospective Areas of Agricultural Production Import Substitution in the AIC of the Omsk Region]. Siberian Financial School, 1 (114): 77-82.

Nardin, D.S., V.M. Pomogaev and S.A. Nardina, 2015. Prospects for Import Substitution of the Equipment in Forming Machine Utilization Systems in the Agriculture of Siberian Federal District. International Journal of Economics and Financial Issues, 5: 320-325.

Shamanin, V.P., A.I. Morgunov, J. Manes, A.S. Chursin and M.A. Levshunov, 2011. Breeding of Spring Common Wheat for Resistance to Local Populations and the Virulent Race Ug99 of Stem Rust in West Siberia. Russian Journal of Genetics: Applied Research, 1: 38-43.

Morgounov, A., I. Ablova, O. Babayants, V. Shamanin and V. Syukov, 2011. Genetic Protection of Wheat from Rusts and Development of Resistant Varieties in Russia and Ukraine. Euphytica, 179: 297-311.

Shumakova, O.V. and O.N. Kryukova, 2016. Methodological Aspects of Forming the Vegetable Micro-cluster, and Its Influence on Sustainability of the Industry. Journal of Internet Banking and Commerce, 21: 2-19.

Shamanin, V.P. and S.L. Petukhovskiy, 2012. Sozdanie ishodnogo materiala dlia selektsii yarovoy miagkoy pshenitsy v usloviyah Zapadnoy Sibiri [Creation of Source Material for Selecting Spring Soft Wheat under Conditions of West Siberia]. Siberian Bulletin of Agricultural Science, 6: 10-16.

Gogolev, I.M. and M.V. Gogolev, 2015. Importozameshchenie kak factor rosta proizvodstva selskohoziystvennoy produktsii [Import Substitution as a Factor of Production Growth]. Problems of Regional Economy, 1-2: 179-183.

Stukach, V.F. and O.V. Shumakova, 2004. Informatsiya na regionalnom agrarnom rynke [Information on Regional Agrarian Market]. Omsk, pp: 206.

Shumakova, O.V., 2010. Mekhanizmy regulirovaniya transaktsionnyh izderzhek v selskom khoziaystve [Mechanisms of Regulating Transactional Expenses in Agriculture]. Omsk, p. 187.

Alimov, K.K., 2015. Bazovoe tsenoobrazovanie kak factor stimulirovaniya innovatsionnogog proizvodstva konkurentosposobnogo zerna [Basic Price Formation as a Factor of Stimulating Innovaitonal production of the Competitive Grain]. Bulletin of the Michurin State Agrarian University, 3: 165-172.

Lukin, D.N. and N.R. Andreev, 2014. K voprosu importozameshcheniya produktov glubokoy pererabotki zerna i kartofelia [On Issue on Import Substitution of Products of Deep Processing of Grain and Potatoes]. Bulletin of the Voronezh State University of Engineering Technologies, 4 (62): 291-294.

Vasilieva, A., 2015. Prodovolstvennaya bezopasnost RF i razvitie natsionalnogo selskogo hoziaystva (na primere rynka zernovyh kultur) [Production Safety of the Russian Federation and Development of National Agriculture (Through the Example of Cereal Crops Market)]. Actual Issues of Innovational Economy, 9: 42-47.

Customs Statistics of the External Trading, 2016. Date Views 15.07.2016 stat.customs.ru/apex/f?p=201:2:2122666681691146::NO.

Kopein, V.V. and E.A. Filimonova, 2016.Importozameshchenie v selskom hoziystve: otsenki, problemy I ekonomicheskaya bezopasnost [Import Substitution in Agriculture: Estimations and Economic Safety]. International Research Journal, 3-1 (45): 31-34.

Shagaida, N. and V. Uzun, 2016. Importozameshchenie v selskom khoziaystve [Import Substitution in Agriculture]. Economic development of Russia, 23 (3): 63-67.

Grigorian, B.R., V.I. Kulagina and A.A. Andreeva, 2016. Organicheskaya produktsiya selskogo hoziaystva I importozameshcnehie [Organic Agricultural Products and Import Substitution]. In the Proceedings of the VI Internaitonal Conference of the Saratov State Agrarian University, pp. 66-68.

Golubev, A.V., 2016. Importozameshcnehie na agroprodovolsrvennom rynke Rossii: namereniya I vozmozhnosti [Import Substitution on Russian Agroindustrial Market: Intentions and Opportunities]. Issues of Economy, 3: 46-62.

Dynamics of Official Rate of Set Currency, 2016. Date Views 15.07.2016 www.cbr.ru/currency_base/dynamics.aspx?VAL_NM_RQ=R01235&date_req1=01.01.2013&date_req2=31.12.2014&rt=1&mode=1