Improvement of Government Support System of Sheep Breeding in Zabaikalsky Krai

Dondokova E.B.*
East Siberia State University of Technology and Management
Ulan-Ude, Russia
E-mail: dondokovae60@mail.ru

Ishina L.A.
Transbaikal Agrarian Institute
Irkutsk State Agrarian University named after A.A. Ezhevsky
Chita, Russia
E-mail: laishina@mail.ru

Vershinina V.A.
Transbaikal Agrarian Institute
Irkutsk State Agrarian University named after A.A. Ezhevsky
Chita, Russia
E-mail: vershininava@mail.ru

Abstract — The experience of global and domestic agricultural production, its successful development, and the food security of a state are determined by agricultural policy, methods of state regulation, and effective state support. The study of foreign experience shows that many countries around the world have accumulated extensive experience in implementing agricultural policies and providing state support for agricultural producers. For example, the experiences of Japan, South Korea, People's Republic of China, the United States of America, the Federal Republic of Germany, Canada, New Zealand, Australia, France, Sweden, Switzerland, Norway, Belarus, Kazakhstan, and a number of other member states of the European Union and Organization for Economic Cooperation and Development deserve significant attention. The governments of the above-mentioned countries are implementing the system of benefits and privileges. The level of government support for agricultural production in these countries is comparatively much higher than similar efforts taken in Russia. In this regard, the representatives of domestic agricultural science, academics of the Russian Academy of Sciences, and many other reputable agricultural scientists and practitioners strongly recommend improving the agricultural policy of the country and providing government support for agricultural sector by increasing several times the current share of its financing in the country's consolidated budget from 1.3% to not less than 5.0%. This article is based on the example of one of the regions of the Russian Federation – Zabaikalsky Krai. It contains the analyses of the current government support for one of the most important branches of agricultural production in the region – sheep breeding, the influence of state support measures on the efficient development of the industry, as well as suggests measures to improve and significantly increase levels of government support.

Keywords — Government Support, Agricultural Producers, Budget, Subsidies, Dotation, Sheep Breeding.

I. INTRODUCTION

Government support of agricultural sector in Japan warrants particular attention. A.G. Paptsov notes that, since 1997 and the next 15 years, state expenditure of Japan for the sector was 3.4% of gross domestic product. Japan occupies a leading position in the world in terms of state support per capita. In 2013–2015 this figure was $ 378. Production in agriculture is supported by market regulation, the introduction of administrative prices, trade barriers, and special programs. The level of state support is especially high for the most important products for the country’s population, such as wheat, rice, milk, pork, oilseeds. The Government takes into account regional peculiarities, paying great attention to the development of production in mountainous and hard-to-reach areas, where agriculture and forestry are the main branches of production.

In relation to this, a special law was adopted on revival of agriculture, forestry, and other activities in mountainous and hard-to-reach regions, according to which local administrations implement programs to improve rural infrastructure, introduce new corps into production, organize local sales, subsidize farmers’ cooperatives, and much more. Thus, state support for agricultural production is at the core of the agrarian policy of Japan [1].

The experience of the People’s Republic of China can be very useful and instructive in improving state support measures. Agrarian reform in China began with the expansion of market mechanisms, freedom of entrepreneurship, the transformation of land relations and the development of cooperation. In 2006 the land tax and various fees were abolished [2]. As noted by academician I.N. Buzdalov, one of the main factors of success is eight-fold increase of state support during the period of agricultural sector reforms, as well as “combination of market relations system with the targeted state regulation, massive budget support, improvement of credit, financial and tax systems in order to stimulate the growth of production” [3].
Government support of agriculture in the Federal Republic of Germany also merits consideration and has been implemented there for a very significant historical period. At the turn of XVII–XIX centuries, Germany began to implement protectionist measures. The modern Federal Republic of Germany, being one of the most important industrial states in the world, is also a world leader in agricultural production. There is 5% of population engaged in agricultural production in the country; however, it produces 15% of beef, 18% of milk, 11% of poultry meat, 21% of sugar beet, 18% of potatoes and 16% of crops of the European Union total volume of agricultural production.

Such achievements of the Federal Republic of Germany have been achieved thanks to the successful implementation of the state agrarian policy, which is based on the development of rural farms and their financial and technical support. In this case, the scientific justification proposed by the German scientific community on taking into account the specifics of agricultural production as a special type of economic activity, which requires a complex of various targeted measures (administrative, regulatory, stimulating and protecting agricultural producers) is very important. Such events contribute to equalizing the conditions of economic activities and social living conditions in cities and rural communities [4].

A very diverse, significant, and interesting experience of state support for agriculture is present in Switzerland, France, Sweden, and Norway. The Swiss Constitution, for instance, explicitly states that protectionist support is to be consistently provided to farmers. As a result, while having five times less agricultural land per capita than Russia, this state not only provides almost complete food security, but is also an exporter of high-quality agricultural products. A case in point is France (which ranks second in the world for agricultural exports), Sweden, and Norway, in which state support for agricultural producers is many times higher than that of Russia.

The United States of America, Canada, New Zealand, Australia, South Korea, England, Finland, Italy, Belarus, Kazakhstan and several other countries of the European Union and the Organization for Economic Cooperation and Development also have significant experience in providing state support for the agricultural sector. Privileges and preferences, the level of state support for agricultural production in these states is much higher than similar measures implemented in the Russian Federation. In the countries of the European Union, for instance, state support in 2016 per hectare of arable land was more than 30 times higher than in our country [5–9].

It is very useful to draw attention to the experience of the member states of the Organization for Economic Cooperation and Development, which includes 34 developed and dynamically developing countries. These countries account for about 80% of the global gross domestic product. On the basis of the methods of the Organization for Economic Cooperation and Development, the following types of government support for agriculture are carried out as a result of state policy: Producer Support Estimate (PSE), General Services Support Estimate (GSSE), Consumer Support Estimate (CSE).

Over the past two decades, countries of the Organization for Economic Cooperation and Development have shown a tendency towards a decrease in the level of state support as a percentage of gross domestic products. Thus, the percentage of government support for agricultural production in the gross domestic product of the European Union was decreased from 1.5 to 0.8%, in the United States of America from 0.6 to 0.5%, in Canada from 0.8 to 0.4%, and in Russia from 2.6 to 0.7%.

Despite the fact that members of the World Trade Organization are obliged to limit state support to manufacturers, it still remains in high levels in most countries. Only in the USA and New Zealand it is 38% and 27% of the total state support, respectively. In the European Union, Japan, South Korea, Switzerland, Norway, Turkey, Iceland, the People’s Republic of China – it is 85% or higher and in the Russian Federation – 80%. Many countries have begun to increase support for common services and consumers. Budget consumer support is used in an extremely small number of countries. It is most often applied in the United States of America [10–13].

According to A.A. Shutkov, it is necessary to develop agro-industrial production in our country, taking into account the changes in the global economy of the world and the fierce competition of agri-food markets. The methods of development should be based on fundamentally new approaches related to the rational use of land, material, financial, and labor resources, based on the achievements of scientific and technological progress, modernization, and intensification of agricultural production, with its transfer to the fifth and sixth technological level [14].

Therefore, given the current socio-economic state of the agro-industrial complex of the Russian Federation and low level of government support in this sector, one of such approaches should be a significant and economically justified increase in support for the agricultural sector.

II. DISCUSSION

According to academicians of the Russian Academy of Sciences A.I. Altukhov, V.M. Bautin, I.N. Buzdalov, V.I. Kashin, P.M. Pershukevich, A.V. Petrikov, A.N. Semin, I.G. Ushachev, A.A. Shutkov and others, agriculture is characterized by specific nature of production. It is the most important system-forming sphere of the economy and it objectively requires state support.

As the confirmation of the low level of state support in our country, A.A. Shutkov provides the following data: subsidization per 1 hectare of arable land in the Russian Federation in 2016 amounted to $10, and at that time in the European Union – $300, the United States of America – $356, Canada – $310, Japan – $475 [14].

V.I. Kashin reports that only 1.3% of the federal budget of the Russian Federation goes to the development of agriculture,
while the amount of allocated funds in the Union of Soviet Socialist Republics was at least 15%. According to Kashin it is necessary now to increase this indicator in the federal budget of the Russian Federation to at least 5%. He also draws attention to the necessity of increasing the transparency of state support, providing equal access to preferential subsidies and loans for agricultural producers. This need is confirmed by the fact that the results of inspections of the Accounts Chamber of the Russian Federation constantly show a high concentration among a limited number of recipients of state support [15, 16].

A.I. Altukhov indicates a very low level of state support, significantly inferior to the developed countries of the world. He notes that, despite the outpacing growth rates of gross domestic product, macroeconomic indicators in agricultural development are deteriorating. Agriculture, for instance, accounts for 4.0% of the gross domestic product and 3.7% – in investments. At the same time, we draw attention to the fact that the rules of the World Trade Organization allow village support in the Russian Federation in the amount of $9 billion, but in fact it is about 75%. This has been taking place in the greater context of fast growth of our agriculture. The significant results in import substitution in agriculture were achieved, unlike many other sectors of the country’s economy, but it does not receive effective preferences and has not become a priority industry. In this regard, as noted above, expenditures on agriculture in the consolidated budget of the Russian Federation in recent years have been 1.3%, while in Kazakhstan they make up 4.6% and in Belarus – 7.5%. At the same time A.I. Altukhov notes that the tax burden on agricultural organizations in these countries is much lower than in Russia (12.2%), while in Kazakhstan it is 4.2% and in Belarus – 9.5%. He provides the following data:

According to some experts in Russia, state support for agricultural producers in the value of gross output is not higher than 7%, while in many other states it is 32–35%. The share of state support in farm income: Switzerland – 80%, Finland – 71%, Japan – 66%, Sweden – 59%, Canada – 45%, the United States of America – 30%. In the Russian Federation it is only 3.5% [17, 18].

Currently, state support for the agro-industrial sector of Russia is carried out by direct methods, mainly in the form of subsidies from the federal budget to regional budgets. There are different points of view regarding this. A number of economists believe that direct state budget support for agricultural production is inefficient and explain this by the fact that a certain part of the support goes to processors or other buyers of agricultural products. In our opinion, this is not entirely justified, as most of it remains in agricultural production, which means that it provides the real effectiveness of subsidies. At the same time, subsidies go to state support for the most important areas of agricultural production, such as certain branches of livestock and crop production, livestock breeding, and elite seed production, cost compensation for the purchase of material and technical equipment.

Many researchers note that there are regional characteristics and specifics of state support for agriculture and there is a significant difference in its receipt by region. R.G. Yanbykh notes that there are regions that show the greatest growth in agricultural production due to the highest level of state support, as well as the opposite there are regions with the lowest level of state support, but with the high growth in agriculture. Thus, she concludes that the hypothesis that the growth of state support automatically leads to an increase in agricultural production is not confirmed. She notes that there are many differences in state support within the regions. A very high share of support from regional budgets is observed in the Republic of Sakha (Yakutia), the Tyumen Region, the Khabarovsk and Krasnoyarsk Territories – over 60%, and significantly less in the Karachay-Cherkess and Kabardino-Balkarian Republics, Oryol and Belgorod Regions, Stavropol and Krasnodar Territories – less than 30% [19].

In addition, it is necessary to note that, within the framework of state support mechanisms for various agricultural producers, there are very few forms of support for households, although their share in 2018 was 33%. The Federal Law “On personal subsidiary plots” stipulates that all measures of state support are extended to households, but in fact they can only receive subsidies to recover part of the costs of loans taken for the development of small forms of farming. In accordance with the above data, the development of households is of great industrial and social importance, both for the state as a whole and especially for many regions where it is the main area of production. For example, the Republic of Ingushetia, the Chechen Republic, the Republic of Tuva, the Republic of Buryatia, Zabaikalsky Krai, Astrakhan Region, and many other regions.

Although state support measures for agriculture in our country remain yet insufficient, they are gradually improving. In 2020, for instance, the Ministry of Agriculture of the Russian Federation plans to introduce a number of innovations that can help resolve accumulated problems. At the Moscow Financial Forum in September 2019, Deputy Minister of the Ministry of Agriculture of the Russian Federation O. Lut said: “Starting next year, we plan to provide government support depending on the characteristics of the regions. This is due to the fact that our market participants are different in that they are in different regions, and the conditions for introducing agriculture in different regions are certainly not the same”. Thus, according to the deputy minister, it is planned to expand the individual approach in providing state support, taking into account the specific circumstances and the most important goals of the regions. According to these rules, there will be two directions of support: a compensatory subsidy to support agricultural production in the subjects, and a stimulating subsidy for regions that have established priority areas of regional development. Thus, the changed mechanism of state support will facilitate the distribution of subsidies to priority areas and increase the volume of production in which a
particular region specializes, as well as increase the efficiency of the allocated subsidies [20].

III. RESULTS

We have chosen a specific region of the Russian Federation for the analysis – Zabaikalsky Krai and its leading branch of agriculture – sheep breeding. It is necessary to note that previous achievements of sheep breeding in the region were the result of priority protectionist organizational, economic, scientific, and technological measures; systemic measures of financial state support; regulation of pricing and market for products; the formation of the infrastructure for the procurement, processing of products and its material and technical support; rational distribution, specialization and concentration of production; high level of personnel and scientific support; and continuous improvement of sheep breeding technology.

Currently, state support for sheep breeding is carried out through the implementation of the State Program of the Zabaikalsky Krai “Development of agriculture and regulation of agricultural products, raw materials and food markets for 2013–2020” (State program). The funds provided by the federal program to support the development of sheep breeding are provided to the subjects of the Russian Federation on the basis of co-financing for similar events [21–23].

The analysis of state support financing for livestock and sheep breeding in accordance with the regional State program demonstrates that from 2015 to 2018, state support for livestock breeding in total increased by 21.3 % and sheep breeding only by 12.5 %. There are large fluctuations over the years, both in livestock in total and in sheep breeding in particular. This means that provided support is very unstable. The share of state support for sheep breeding remains at approximately the same level – from 37.5 to 42.5 %. The co-financing from the regional budget has insignificant volumes and its share remains very low – from 5.1 to 9.1 %. The share of federal budget financing ranges from 90.9 % to 94.2 %. The only exception is 2015, when 5.2 million rubles were allocated from the regional budget to support the production of wool and its share was 80.8 %.

It is especially necessary to note that the stimulation of the production of fine and semi-fine wool with extremely low annual financing of 4.6–6.5 million rubles decreased in 2018 compared with 2015 by 27.8 %, and the share of support for sheep breeding was only 5.3–9.9 %.

It is necessary to note that there are only two measures in the regional State program that have direct impact on the development of sheep breeding: measures to increase the breeding stock as well as the development of the production of fine and semi-fine wool.

The first measure is carried out by providing state support in the form of subsidies to agricultural producers to reimburse part of the cost of increasing the breeding stock of sheep. It can be provided to the producers having a breeding stock of at least 75 goals (at a rate of 1 goal), including offspring, on the basis of financial statements of the enterprise for the previous year. At the same time, subsidies are provided to agricultural producers (excluding households), which ensured the safety of the total population and ensured the increase in the number of breeding stock at the beginning of this year to the level of the previous year. Since 2018, subsidies have been provided to the breeding stock for those who have passed the identification procedure and registered with the state veterinary institution. The second measure – the production of fine and semi-fine wool is stimulated by the provision of subsidies for their production to agricultural producers (excluding households) at a rate of 1 kg of physical weight. In this case, the wool should be of its own production, sold only to enterprises registered in the Russian Federation, and certified by an accredited laboratory. Regarding the exclusion of households from state support, it should be said that their importance in the total agricultural production of Zabaikalsky Krai is very high and has amounted to about 80 % in recent years, and 40 % of sheep are kept in sheep farms [24, 25].

The regional State program also has a number of other measures on providing subsidies for breeding and artificial insemination of animals, reimbursement for the purchase of agricultural machinery, and grants for young farmers and family livestock farms. However, the problem is that it is impossible to determine the amount of support received by sheep-breeding enterprises. In addition, agricultural organizations of an intersectoral nature are involved both in animal husbandry and crop production. It is still possible to attribute the costs of acquiring agricultural machinery to crop and livestock production using this approach, but it is very difficult to separate them by type: for example, cattle breeding, horse breeding and sheep breeding, not to mention reimbursing a portion of the requisite costs.

The need to increase state support for the development of sheep breeding and wool production is made evident by an analysis of the distribution of dotations for production in agricultural enterprises of the region (see table 2).

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsidies for livestock support, total</td>
<td>153593.1</td>
<td>132884.1</td>
<td>216349.8</td>
<td>186292.5</td>
</tr>
<tr>
<td>Including sheep breeding</td>
<td>/ 42.5</td>
<td>/ 37.5</td>
<td>/ 40.2</td>
<td>/ 39.4</td>
</tr>
<tr>
<td>Subsidies for breed stock increase</td>
<td>17650.3</td>
<td>18794.5</td>
<td>35935.5</td>
<td>22984.6</td>
</tr>
<tr>
<td>By the regional budget</td>
<td>/ 90.9</td>
<td>/ 94.9</td>
<td>/ 91.4</td>
<td>/ 94.0</td>
</tr>
<tr>
<td>By the federal budget</td>
<td>/ 90.9</td>
<td>/ 94.9</td>
<td>/ 91.4</td>
<td>/ 94.0</td>
</tr>
<tr>
<td>Subsidies for the production of fine and semi-fine wool</td>
<td>6463.8</td>
<td>4490.2</td>
<td>4604.3</td>
<td>4668.9</td>
</tr>
<tr>
<td>By the regional budget</td>
<td>/ 89.8</td>
<td>/ 85.4</td>
<td>/ 7.6</td>
<td>/ 6.0</td>
</tr>
<tr>
<td>By the federal budget</td>
<td>/ 89.8</td>
<td>/ 85.4</td>
<td>/ 7.6</td>
<td>/ 6.0</td>
</tr>
</tbody>
</table>

- according to the data of the Ministry of Agriculture of Zabaikalsky Krai.
As it is mentioned above, there is no stability in the implementation of state support for sheep breeding. There is the same situation in agricultural production and unstable support for the agricultural enterprises of the region. The share of sheep breeding in the structure of state support is decreasing and it reduced almost three times during the analyzed period. In the agricultural production, there is a constant reduction in the proportion of state support for wool compared with lamb. Recently it made up only 6.4–7.7 %, but in 1999, for instance, it was 54.3 %. At the same time, it should be noted that the existing state support yields a very positive impact on the economic efficiency of the industry (see table 3).

### TABLE III. Economic Efficiency of Sheep Products Sales in Agricultural Enterprises of Zabaikalsky Krai *

<table>
<thead>
<tr>
<th>Year</th>
<th>Product</th>
<th>Total cost, million rubles</th>
<th>Revenue, million rubles</th>
<th>Profit (loss), million rubles</th>
<th>Level of profitability (profit ratio)</th>
<th>State support, million rubles</th>
<th>Profitability level (profit ratio including state support), %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>Lamb</td>
<td>142,095</td>
<td>141,846</td>
<td>0.249</td>
<td>-37.3</td>
<td>72,338</td>
<td>51.1</td>
</tr>
<tr>
<td></td>
<td>Wool</td>
<td>76,682</td>
<td>40,395</td>
<td>-26,287</td>
<td>-47.3</td>
<td>49,803</td>
<td>32.8</td>
</tr>
<tr>
<td>2013</td>
<td>Lamb</td>
<td>129,388</td>
<td>121,958</td>
<td>-7,422</td>
<td>-5.7</td>
<td>49,803</td>
<td>32.8</td>
</tr>
<tr>
<td></td>
<td>Wool</td>
<td>53,597</td>
<td>35,314</td>
<td>-18,283</td>
<td>-34.1</td>
<td>0</td>
<td>-34.1</td>
</tr>
<tr>
<td>2014</td>
<td>Lamb</td>
<td>144,748</td>
<td>129,243</td>
<td>-15,505</td>
<td>-10.7</td>
<td>46,823</td>
<td>21.6</td>
</tr>
<tr>
<td></td>
<td>Wool</td>
<td>50,522</td>
<td>32,718</td>
<td>-17,804</td>
<td>-35.2</td>
<td>0</td>
<td>-35.2</td>
</tr>
<tr>
<td>2015</td>
<td>Lamb</td>
<td>136,099</td>
<td>119,665</td>
<td>-16,434</td>
<td>-12.1</td>
<td>44,961</td>
<td>21.0</td>
</tr>
<tr>
<td></td>
<td>Wool</td>
<td>49,45</td>
<td>37,695</td>
<td>-11,755</td>
<td>-23.8</td>
<td>6,139</td>
<td>-11.4</td>
</tr>
<tr>
<td>2016</td>
<td>Lamb</td>
<td>136,143</td>
<td>128,119</td>
<td>-8,024</td>
<td>-5.9</td>
<td>34,573</td>
<td>19.5</td>
</tr>
<tr>
<td></td>
<td>Wool</td>
<td>44,729</td>
<td>39,846</td>
<td>-4,883</td>
<td>-10.9</td>
<td>4,413</td>
<td>-1.1</td>
</tr>
<tr>
<td>2017</td>
<td>Lamb</td>
<td>151,958</td>
<td>120,155</td>
<td>-31,803</td>
<td>-20.9</td>
<td>63,615</td>
<td>20.9</td>
</tr>
<tr>
<td></td>
<td>Wool</td>
<td>50,261</td>
<td>46,632</td>
<td>-3,629</td>
<td>-7.2</td>
<td>4,361</td>
<td>1.5</td>
</tr>
<tr>
<td>2018</td>
<td>Lamb</td>
<td>116,042</td>
<td>96,481</td>
<td>-19,561</td>
<td>-16.9</td>
<td>54,925</td>
<td>30.5</td>
</tr>
<tr>
<td></td>
<td>Wool</td>
<td>69,79</td>
<td>51,911</td>
<td>-17,879</td>
<td>-25.6</td>
<td>4,604</td>
<td>-19.0</td>
</tr>
</tbody>
</table>

* *According to the data of the Ministry of Agriculture of Zabaikalsky Krai

As we can see from the table, a higher level of state support for the production of lamb significantly increases the economic efficiency of its production; as a result, profitability from zero level in 2012 increased to 30.5 % in 2018. Support for wool production, which has also had a positive impact since 2015, has led to decrease in loss ratio. In 2017, profitability of 1.5 % was achieved, although it still remains unprofitable even with support: −11.4 %, −19.0 %.

### IV. CONCLUSION

1. International and domestic experience in the development of agricultural production indicates that its development is largely determined by the current agricultural policy, methods of state regulation, and effective state support. However, in Zabaikalsky Krai, agricultural production and one of its leading sectors – sheep breeding – have not received a sufficient level of state support in recent years.

2. Regional features of agricultural production in the region, centuries-old practice and traditions of the local population, and socio-economic significance determine the priority development of sheep breeding in the region. However, this industry is significantly lagging behind in the level of state support, the share of which is declining, generally in both agricultural production and in livestock. The state support for stimulating the production of wool is extremely insufficient and is not provided for the development of sheep husbandry in households, although they contain 40 % of the number of sheep. Therefore, constant improvement of state support mechanisms and a significant increase in its volumes to an economically feasible level are required.

3. One of the effective mechanisms of state support can be the use of great potential and competitive advantages of Zabaikalsky Krai and the Republic of Buryatia, since these regions have 92.1 % (58.9 % and 33.2 %, respectively) of the number of sheep in the Far Eastern Federal District. Therefore, on the basis of various government support programs for the Far Eastern regions and integration of Zabaikal and Buryatia into the Far Eastern Federal District, there is an opportunity to significantly increase the volume of state support for sheep breeding – one of the most critical sectors, which is extremely important for social and economic development of the regions.

### References


[15] V.I. Kashin, “The main task is to ensure the profitability of the agro-industrial complex”, Legislative support for the development of the agro-industrial complex of Russia, Materials of the parliamentary hearings. Moscow: Publ. of the State Duma, 2018, 144 p.


