

## **ASPECTS OF FORMATION OF SCIENTIFIC MAINTENANCE OF AGRICULTURE OF ENCLAVE REGIONS OF RUSSIA (using an example of the Kaliningrad region)**

© 2009 E.A. Nosachevskaja\*

**Keywords:** formation, scientific maintenance, scientific achievements, agriculture, exclave region of Russia, the Kaliningrad region, the scientific contribution to development of branch, structural model of scientific maintenance, modelling of the program of scientific maintenance, methodical positions, the system approach, efficiency of functioning of scientific maintenance.

It was considered a peculiarity of development of agriculture of the Kaliningrad region as enclave region of Russia. Aspects of formation scientific maintenance of branch on an example of agriculture of the Kaliningrad region are investigated.

Enclave position and change of conditions of economic development of the Kaliningrad region in 90th years of 20 centuries has aggravated the problems connected to its specialization within the framework of a division of labour inside the country, and that has influenced decrease in rates of development and has led to the crisis phenomena in the majority of branches of region.

For example, to the beginning of 1990s the level of development of agrarian manufacture of area exceeded average for the Russian Federation. On area in 1989 were necessary 0,6 % of the population of republic, and agricultural production were made during same time 0,65 %. The share of the Kaliningrad region in manufacture of meat made 0,7 %, milk - 1 %. Manufacture of furs has reached 5 % from all-union level.

Subsequently enclave position of region became the factor complicating export of agricultural products in other regions of the country and delivery in area of fertilizers, combustive-lubricating materials. The volume of gross output of agriculture of region has decreased more than twice both due to decrease in efficiency, and due to reduction of a livestock of cattle and areas under crops.

In the beginning of 1990s, with a view of maintenance of the population with the foodstuffs the decision on duty-free import of articles of food on territory of area was accepted. In result production of local agricultural commodity producers has not sustained a competition to cheaper import goods. It was the additional factor, which has strengthened depth of recession of an agricultural production of the Kaliningrad area.

Sharp decrease in rates of development of agrarian and industrial complex in region has influenced the functioning of scientific maintenance of

branch, especially, regarding recession of introduction of agrarian scientific development in production.

Opening essence of the process of formation of scientific maintenance of agriculture of the Kaliningrad area, it is important to note, that during post-war years in region establishments for performance of agrarian research works on different directions were created and their further functioning before change of a political system in the country has been based on principles of socialism.

For example, with the purpose of realization of the activity connected to cultivation of breeding agricultural animals and artificial insemination in territory of area in 1947 the pilot farm "Kaliningradskoje" for breeding work was created. Since 1946 it has been the Kaliningrad interregional veterinary laboratory. The beginning of development of protection of plants in territory of region is considered to be 1954. In 1964 the zone agrochemical laboratory was created, on the basis of which later has been based the agrochemical center "Kaliningradskij".

The given establishments promoted the development of the regional agrarian and industrial complex, the lead experiments confirmed efficiency of introduction of progressive technologies in an agricultural production.

After disintegration of the USSR in 1991 there were problems in change of structure of regional economy, which has ceased to meet to new conditions. During this period difficulties of financing of scientific development were observed, the financial position agricultural commodity producers has sharply worsened, and many institutes of scientific maintenance of regional agrarian and industrial complex have slowed down the development. That now

\* Ekaterina A. Nosachevskaja, post-graduate student, Russian State University of I.Kant.

there is a potential for their balanced functioning in view of realization in the field of lines of the state programs and increase of activity of agrarian manufacture is obviously important. Besides the regional agrarian and industrial complex has a line of the advantages connected to rather favorable nature-climatic and geographical conditions for conducting of an agricultural production and development of a dairy cattle-breeding direction of branch, presence of the unused grounds of agricultural purpose, privileges special an economic zone.

For the description of the current scientific maintenance of branch of agrarian and industrial complex of the Kaliningrad region in research the structural model has been constructed on the basis of the Graphictheory. Ordering of institutes of scientific maintenance of regional agrarian and industrial complex, revealing of a level of interaction between them, within the framework of construction of model have allowed to conclude research of directions of development, that in work of scientific institutes there are serious omissions.

Firstly there was separation of the spent research, insufficient orientation to the decision of the major problems of agriculture of area as the majority of scientific institutes are focused on tasks of Northwest Federal district or the federal centre. Alongside it, absence of the mechanism of the state support for managing subjects actively cooperating with scientific sector, absence of system actions on increase in the scientific contribution to development of branch in a section of each area, and also regular industrial check of development at the regional level, recommended to wide introduction in manufacture and as consequence, now is observed a low level of introduction of development in a regional agricultural production and an inefficiency of scientific maintenance of regional agrarian and industrial complex is important.

Within the framework of carrying out of research have been selected by expert way of communication between the elements, playing an essential role in efficiency of scientific maintenance and the model of perspective scientific maintenance of agrarian and industrial complex of the Kaliningrad region has been constructed.

The distinctive characteristic of model is the complex approach, the organization of interaction of all elements of system by means of creation of the institute coordinating functioning of key elements of scientific maintenance and called to spend complex work in a direction of introduction of sci-

entific results in production for distribution of the developed technologies in all agroindustrial enterprises of the Kaliningrad region.

On the basis of a block principle of construction with the help of information and logical interrelation of actions the network model of the program of scientific maintenance of agrarian and industrial complex of the Kaliningrad region has been designed, containing 18 events and also experimental modelling has been carried out.

According to the received data, duration of actions of the program of scientific maintenance of branch of the enclave region using the example of agrarian and industrial complex of the Kaliningrad region will take 34 months or 2 years of 10 months. Each action has the appropriated code. The critical way has included program actions under the code: 1-2 (Creation of the regional Centre of scientific maintenance of agrarian and industrial complex), 2-3 (the Analysis of agrarian scientific potential and directions of its use in region), 3-4 (Macromarketing of potential directions of development of agrarian and industrial complex of region), 4-7 (Creation of regional information system of maintenance of interaction of agrarian scientific sector of region and managing subjects), 7-8 (Development of the concept and the mechanism of the state support of agrarian scientific activity in region and the managing subjects actively cooperating with scientific sector), 8-11 (Development of mechanisms of accommodation of orders), 11-17 (Complex coordination of the program and actions), 17-18 (Realization of the program and actions on the state support of agrarian scientific activity in region and the managing subjects actively cooperating with scientific sector).

Results of the lead research can become additions regarding development of agriculture and its scientific maintenance to the strategy of development of the Kaliningrad region accepted at a federal level for 25 years - until 2031 on the basis of which the intermediate program of social and economic development of the Kaliningrad region for 2007-2016 has been formulated. In modern conditions of global financial crisis and high probability of its long character updating of the given programs can be demanded in view of a condition of economy for the current period.

Consideration of scientific maintenance of agriculture of the Kaliningrad region now is important. So, the Northwest Scientific - Methodical Centre of Russian Agriculture Academy functions as

the state scientific institute the Kaliningrad scientific research institute of agriculture.

Studying of the lead research and developmental works of institute for last years allows us to draw a conclusion, that the establishment was engaged in the greater degree in performance of federal tasks on various directions of an agricultural production.

Besides Kaliningrad scientific research institute of agriculture in 2007 began one of two establishments of Northwest branch of the Russian agricultural academy, where works on introduction of results of development in agrarian manufacture were not made, that is inadmissible in view of the factor of the exclave position of Kaliningrad region.

Component of institute of agriculture alongside with research veterinary station till 2008 was the skilled - industrial facilities "Slavjanskoje", created simultaneously with a regional experimental station in 1949 with the general area 6198 ha.

If the institute was engaged and continues to carry out research works the skilled - industrial facilities "Slavjanskoje" has been called on the basis of research to do industrial checks and offer recommendations to managing subjects of agrarian and industrial complex of the Kaliningrad region.

Research of manufacture of the basic kinds of agricultural production the skilled - industrial facilities "Slavjanskoje" for 2004-2007 has shown, that in 2007 in comparison with 2004 all parameters tended to decrease, that in turn allows to draw a conclusion on a low level of experimental activity the Kaliningrad scientific research institute of an agriculture last years. It is necessary to note, that under decision the Russian agricultural academy since 2007 "Slavjanskoje" is in a stage of liquidation.

Concerning interaction activity the Kaliningrad scientific research institute of an agriculture and regional agricultural commodity producers it is possible to explain developed negative tendencies from the point of view of absence of corresponding material resources for introduction of new technologies and backwardness of the organizational-economic mechanism of innovative activity.

Alongside with it, it is necessary to note, that for last years growth of the lead research and incomes of the Kaliningrad interregional veterinary laboratory, caused by increase in standard items of import production in the Kaliningrad region is observed. Dynamic development of the given establishment allows us to consider it as a research

basis for functioning regional agrarian and industrial complex in the future.

It is necessary to pay attention also that realization of sperm production of the open society "Kaliningradskoje" on the breeding work, being the basic parameter of activity of establishment, in 2007 has decreased for 8,5 thousand dozens in comparison with 2006, and one of the main reasons of such tendency are decrease in a number of cattle in region, and also a low level of interaction of the enterprise with agricultural commodity producers of region.

Besides strengthening industrial base of the meliorative organization for escalating works on repair and reconstruction of a meliorative network by means of attraction of unappropriated sources, that is means of land users, concrete agricultural commodity producers is important. Thus, the question of functioning federal official body "Kaliningradmeliodwodhoz" as parts of scientific maintenance of regional agrarian and industrial complex is now actual.

Last years increase of protective actions is observed, for example in 2005 is protected 300 th.ha, in 2006 - 340,5 th.ha, and in 2007 - 354,6 th.ha. Now branch FGU "Russian agricultural centre" carries out supervision over distribution and development of wreckers, illnesses and is an element of the scientific base to development of agriculture in the Kaliningrad region.

Also insignificant growth of volumes of inspection of grounds the agrarian chemical centre takes place in connection with participation of the given scientific institute in realization of the regional target program "Preservation and restoration of fertility grounds of agricultural purpose of the Kaliningrad region for 2007-2016".

Concerning normative-legal base in the field of a researched problem it is necessary to note, that the program of fundamental and priority applied researches on scientific maintenance of development of agrarian and industrial complex of the Russian Federation for 2006-2010 in the Kaliningrad region had been stipulated directions of scientific maintenance of realization of the priority national project "Development of agrarian and industrial complex" on increase of efficiency of development of small forms of managing and machine-technical, an energy potential of an agriculture, development of highly effective "know-how" of production of animal industries, etc.

These directions of activity have found the reflection and in the concept of development of an agrarian science and scientific maintenance of agriculture of the Russian Federation for the period until 2025, the Russian Federation coordinated with the Ministry of Agriculture and approved by the General year assembly of the Russian agricultural academy in 2007.

Thus, now in region all research of scientific institutes in sphere of agriculture, animal industries and primary seed-growing are spent according to requirements of the given Concept at absence of the corresponding regional program.

In the budget of the Kaliningrad region on 2007-2008 is stipulated as 2 mln.rub. annually on financing of actions on scientific maintenance of an agricultural production. The given means are given for the payment of expenses on the organization and carrying out of scientific - practical conferences, branch professional competitions, the publication of research works, materials on agriculture, propagation of the best practices in agriculture.

However the problems stated in the regional target program "The Basic directions of development of agriculture of the Kaliningrad region for 2007-2016" in a context of scientific maintenance of a complex do not cover activity of research, design and other scientific - infrastructural organizations.

Besides in point 5 of article 6 of the law "About development of an agriculture" one of measures on realization of the state agrarian policy determines a supply with information of agricultural commodity producers, granting of the consulting help by it. And necessity of creation of system of the state supply with information for sphere of agriculture is specified in article 17 of the given law.

In the State program of development of an agriculture accepted at a federal level and regulations of the markets of agricultural production, raw material and the foodstuffs on 2008-2012 are provided significant financial assets on carrying out of research and developmental works.

However, despite of the prepared normative-legal base the mechanism of real informing of subjects of agrarian and industrial complex, including an agriculture about scientific achievements till now is not worked, the system of introduction of innovations in process of manufacture does not func-

tion effectively, that is proved to results of activity of the majority of agrarian scientific institutes of the Kaliningrad region.

Research of a problem of formation of scientific maintenance of agrarian and industrial complex of the Kaliningrad region has shown, that the given process had the features, which majority are connected with exclave position of the region, and now scientific maintenance does not meet to rates of development of branch as activity of many agrarian scientific institutes and collectives is not coordinated, it is insufficiently focused on the decision of the major problems of agriculture of area.

In this connection we develop methodical positions on designing system and modelling of the program of scientific maintenance of agriculture of the Kaliningrad region, definition of efficiency of functioning of scientific maintenance of regional agrarian and industrial complex, spent experimental approbation of put forward methodical positions.

Thus, dynamical development of branch of regional agrarian and industrial complex needs corresponding scientific maintenance of this development, that is the question is application of the complex approach, that, certainly, finds the subsequent reflection as a result of work agricultural scientific institutes, agricultural productions and all branch of agrarian and industrial complex.

As a whole the lead research allows to conclude, that scientific maintenance is a basis and one of key conditions for effective functioning branches of regions and demands carrying out of the further research.

---

1. The history of agriculture of Kaliningrad region / Edited by J.S Shalimov, A.L.Gusev, A.V. Romanov, Kaliningrad, 2006.

2. *Panasin V.I., Slobozhaninova V.D., Sharamov V.G.* By thirty five years' anniversary of agrarian chemical services of the Kaliningrad region. Kaliningrad, 2000.

3. *Bujankin N.I., Minasjan V.G., etc.* The Collection of proceedings of the Kaliningrad scientific research institute of an agriculture. Kaliningrad, 2004.

4. *Panasin V.I., Slobozhaninova V.D., Sharamov V.G.* By thirty five years' anniversary of agrarian chemical services of the Kaliningrad region. Kaliningrad, 2000.

5. The concept of development of an agrarian science and scientific maintenance of agriculture of the Russian Federation for the period till 2025. M., 2007.