important to more clearly differentiate levels of degradation. Such indicators grouped us in areal, morphometric, physical and hydrophysical, chemical. Figures are averages for soils of the southern Far East. This indicators can be used to assess the environmental condition of the land and allow for quantitative characteristics to determine the environmental status and the level of soil degradation and land under various forms of destructive processes.

Conclusions:

1. Establishing criteria of fertility decline and environmental degradation on agricultural lands are important for effective soil conservation and control of their fertility. Without this, it is impossible efficient and environmentally oriented cultivation of crops.
2. Legislated the following evaluation criteria reduction of soil fertility: organic matter content (humus), the content of mobile phosphorus and exchange potassium and an increase in the acidity of soils. To these indicators for the conditions of the southern Far East it is necessary to add the power of tillable horizon and its density. These indicators reflect the degree of manifestation of negative destruction processes.
3. In transactions with land plots of agricultural purpose (registration of ownership, tenure, and lease for a term of 5 years or more) landowners (land users) should carry out a full survey of the land, which subsequently will be used as control data.

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The efficiency of use of agricultural land to the Far Eastern South

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Аннотация

Представлен земельный фонд южной части Дальнего Востока и его распределение по видам земельных угодий. Представлено наличие сельскохозяйственных угодий (пашни) в муниципальных районах Приморского края, выделены наиболее освоенные и плодородные районы. Структура и динамика урожайности основных сельскохозяйственных культур. А также различия в урожайности между муниципальными районами. Виды основных производителей сельскохозяйственной продукции и наличие у них пашни. Соотношение обрабатываемых и не вовлеченных в производство сельскохозяйственных земель. Средняя стоимость сельскохозяйственной продукции и средний доход хозяйств в расчете на 1 га (по муниципальным районам). Различия в эффективности использования пашни. Причины низкой эффективности использования пашни –

природные и антропогенные. Государственный мониторинг земель и землеустройство. Государственный земельный контроль.

Ключевые слова: юг Дальнего Востока, земельный фонд, сельскохозяйственные угодья, пашня, эффективность

Abstract

Presents land fund of the Far East southern part and its distribution by type of land. Presents the availability of agricultural land (arable land) in the municipal districts of the Primorye region, the most developed and fertile areas. Structure and dynamics of yield of major crops, as well as the differences in yield between the municipal areas. The main types of farm and the amount of arable land. The ratio of processed and not involved in the production of agricultural lands. The average cost of agricultural production and the average income of farms per 1 ha (in municipal areas). Differences in the effectiveness of the use of arable land. The causes of low efficiency in the use of arable land – natural and anthropogenic. The State Monitoring of lands and land management. The State Land Control.

Keywords: south of the Far East, land fund, agricultural land, arable land, efficiency

In the Southern part of Russian Far East, agricultural land is predominately located on the territory of the Amur region and the Primorye region. The agricultural development of these areas now is a series of government programs (for example, "the Development of agriculture and regulation of markets of farm markets, raw materials and food. Raising the social standard of the Primorye region" for 2013 - 2020). To attract foreign investments in agriculture pays great attention. However, the effectiveness of investment largely depends on local climatic, resource, organizational and technical conditions.

Consider the conditions affecting the efficiency of use of agricultural land on the example of Primorye region. The Central and Eastern part of the territory was covered by mountains of the Sikhote-Alin, in the West part – Ussury and Khanka lowlands. The main agricultural land located within the lowlands and on the hillslopes. In mountainous areas, agricultural land covers a small area along the narrow river bottoms. Climatic and soil conditions of Primorye region allows cultivation of many crops. However, four districts equated to the Northern area of Russia: Dalnegorsk, Kavelerovo, Olga and Terney.

According to the state of the account on 1st of January, 2015 in Primorye region the square area of agricultural zoning category (including tillable lands, forage lands, lealands and gardens) was 1874,4 thousand hectares (11.4% of the total area).

The square of agriculturally used land was in 2015 – 1398,8 thousand hectare (74.6 percent of the total area of land categories). The ratio of the forage land and tillable land are approximately equal, small area are fallow land and gardens. However, this is just statistics, as is valid the condition of agricultural land in Primorye region differs from that presented in the documents.

In relation to agricultural development, administrative districts of the region vary depending on their location. The most agriculturally developed are Mikhaylovka, Khorol, Khanka, Octiabrsky, Lesozavodsk, Pogranichny, Spassky, Kirovsky, Ussuri and Chernigovka municipal districts. They located the largest area of tillable land, which is heavily used. This is primarily due to the location within the Ussuri and Khanka lowlands. According to statistics, the area of tillable land in these territory is 79.6% of the tillable land of the Primorye region. These districts are the most attractive and promising in relation to agriculture in the region. The largest enterprises in the planning of agricultural activities on the territory of these districts are "Rusagro" and "Mercitrade".

In the cultivation of agricultural products on the Primorye region preference was given to such crops as soybeans, grains (wheat and oats), corn for grain, because these crops are widely demanded in domestic and foreign market. The acreage of corn, soybean and grain crops grow every year, as evidenced by the analysis of operative reports of crops in the

municipal districts. However, these areas, except soybean, below the projected state program of agriculture development.

Not all areas having large and comfortable area of tillable land, farmers are embracing them fully. Use of tillable land distributed among the municipal districts of the Primorye region. On average in the Primorye region uses about 44% of all available tillable land. According to the forecast for the current year must be used 23% more. None of the municipal districts of tillable land not was used fully. This is primarily due to organizational and technical problems extant in the region since the collapse of agriculture in the 90-th years, when a large area of tillable land has not been tilled. Many agricultural enterprises have limited production resources, not allowing increasing production. In some farms, there are perennial grasses on tillable land, but in fact, already overgrown weed herbs.

In addition, one of the problems of use tillable land is the problem of bureaucratic. In the presence of a larger amount of available land, local farmers are not able to draw up the documents for the rental of these lands, getting failures at one or another agricultural land. Not always the cause of these failures is reasonable and understandable to the farmer. In fact, the land is idle, and willing to work do not have this capability. This is one of the reasons, which the actual area of crops is below the projected.

There are other reasons not to use tillable land. This causes a natural character. During the Soviet Union developed under cultivation as much lands, regardless of natural conditions. Therefore, in Primorye region, about 30% of all tillable land is located at difficult conditions for cultivation. Far located, small square, improper configuration areas are prone to erosion or waterlogging. Naturally, they are unattractive for agriculture due to high costs of processing. Therefore, it remain in a state lealand. Most of these areas are located in the foothill part of Primorye region.

Also during the period of extensive use of tillable land decreased fertility, many lands due to the soil exhauster. This happened due to lack of fertilization and erosion processes. Tillable land Primorye region have predominantly low to medium soil fertility. The humus content varies from 2.0 to 5.5%.

In municipalities located within the flat region, tillable land is located at meadow gley and meadow-brown soils with average fertility. This soil is about 60% of all flat region. High fertility have river basin soils, which have 23% of the area of tillable land on lowland areas. The remaining area is occupied by low-fertile tillable land.

In the municipal districts, which located in foothills and mountainous parts of the Primorye region tillable land was situated mainly on brown podzolic and brown forest soils. These soils are mostly low-fertile and occupy about 50% of the area of tillable land. Average fertility soils occupy about 30% of the area of tillable land. Soils with a high level of fertility is not more than 10% and are located on the tillable land in the valleys of mountain rivers.

Soil and climatic conditions, as well as the causes of organizational character cause low crop harvest. Thus, the harvest of soybeans on average over the 5 years amounted to 1.0 t/ha, grain 1.9 t/ha, corn 3.0 t/ha. The main reasons for the low harvest are insufficient fertilizer application, low agriculture, crop losses during harvesting and storage products. However, some farmers has high results, and get the crops twice above average for the Primorye region. The highest harvest of major crops was obtained in Spassk, Khanka, Khorol, Mikhaylovka and Partisansk municipal districts.

Low crop harvests and high cost of cultivation results in high production costs. The cost in the best case is about 90% of the sale price. However, agricultural products have to sell at a price equal to or below cost. Thus, in 2014 the average selling price of 1 ton of soybeans was about \$ 163, grain – 127 \$, corn - \$ 200.

From 2004 to 2008, we conducted the analysis of profitability of agricultural enterprises. In that period, only some agricultural enterprises had a profitability close to zero, which did not contribute to the intensive development of agriculture. Since 2008, there has been an increase of agricultural activities in connection with the operation of state programs

and the allocation of grants for improvement of soil fertility, development of fallow lands, and the purchase of equipment.

In 2014 according to statistics, the average earnings from sales of farms products was in the range of 2.5-4.5 USD/ha.

As of 1st January 2015, 56% of agricultural land is located in the state and municipal property, 35.6% property of citizens and 8.4 % legal entities. Over the past five years, has not changed the area of land in the property of citizens, increased the square area of legal entities and decreased the square area by the state and municipal property.

Agricultural production on the territory of Primorye region in 2014 focused on the various business entities, including 19 state and municipal agricultural enterprise, 37 research and educational institutions, 477 business partnerships and companies, 80 production cooperatives, 26 households, and 137 other businesses, organizations and institutions.

In 2014, witnessed continued redistribution of land (including agricultural land) between legal entities and citizens. Because of the elimination of unprofitable agricultural enterprises, the owners of land shares handed over the land share rent: for farmers. In addition, the owners of land shares out of the existing enterprises with its share for organizing the farms. Part of citizens' land shares after the liquidation of enterprises has not been used.

The use of land for agricultural production on the territory of Primorye region was carried out by the enterprises and organizations of various organizational-legal forms established by the Civil code of the Russian Federation. The availability of land from enterprises, organizations of the Primorye region, engaged in agricultural production, and the distribution of the land in 2014 were presented in the table.

The table shows that the largest area of agricultural land on the territory of Primorye region are production cooperatives, business partnerships and agricultural enterprises. In 2014 focused 34.2% of all agricultural land of the region.

The process of reorganization of agricultural enterprises and the search for the best farms continues to the present time. This is because the difficult economic situation and the lack of serious support from the state agricultural producers in order to survive have to change the form of management.

As mentioned above, the efficiency of agricultural production in Primorye region negative processes affecting the natural character: the stoniness, bushy, waterlogging, erosion. Dominant negative processes in the region are erosion and waterlogging of soils. These processes we can see on the photos.

Erosion processes cause significant damage to agriculture of the region, reducing the efficiency of the use of tillable land. Because of erosion processes, decreases soil fertility. The effect of erosion processes affecting change in the soil profile. Soil erosion leads to soil depletion.

The presence of wetlands due to shallow groundwater. The intensity and duration of the wetlands have an impact on the efficiency of their use. The square of negative processes identified on the land. It should be noted that the processes of soil degradation from erosion and waterlogging are irreversible. Once started, they continue and lead to changes in the soil.

The photo shows the consequences of heavy rains in the soybean crops in the agricultural enterprise Ussuri municipal district. The tillable land of this farm lies on the hillslopes. Soy is erosion-prone culture, because weakly protects the soil from washing out. Therefore, on such land, it is necessary to apply anti-erosion measures to preserve soil fertility. Otherwise, the cost of replacing the lost soil fertility will be very high.

To make an actual reflection of the processes of erosion, wetlands and the creation of provincial and Federal programs to prevent and eliminate the causes of soil degradation there should be regular soil survey of lands.

As a result of supervisory activities in 2014, were identified cases of misuse of the order of 14 thousand hectares of land in agricultural use.

The main violation of land legislation is that land is not used for the intended purpose, overgrown weeds, bushes and trees, waterlogging occurs, and therefore, land degradation. However, the system of control and penalties for violations are not perfect. Supervisory authorities are difficult to prove a violation; especially if it is associated with declining soil fertility as a result is not good management.

Important measure to improve the efficiency of use of agricultural land and regulating the expression of negative processes is land management. However, in the course of 2014 on the territory of Primorye region land management of agricultural enterprises was conducted. Recent projects of land management of agricultural enterprises were made in the 1980-ies. However, the majority of agricultural enterprises were reorganized, which led to the violation of a previously existing organization of the territory. They all currently have significant shortcomings in the organization of the territory and need to land planning.

Conclusions:

1. The southern part of the far East possesses sufficient climatic resources for efficient crop production.
2. A significant area of tillable land is actually a reservoir. Crops in these areas is not performed.
3. The efficient use of tillable land is influenced by both climatic and logistical reasons. Main reasons of low efficiency of use of tillable land are organizational and bureaucratic.
4. The low productivity of major crops due to low soil fertility, lack of funding to improve soil fertility, low levels of agriculture.
5. Despite the state program of development of agriculture, not many people in the region want to farm because of bureaucratic problems.
6. Control of use of agricultural land is deficient, activities on land not held, which reduces the efficiency of land use.

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