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ANALYSIS OF THE CURRENT CONDITIONS OF MACHINE AND TR4CTOR FLEET IN THE RUSSIAN FEDERATION

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Abstract: *This article considers tendencies in quantitative structure changes of the main types of agricultural machinery in the agricultural organizations for Federal districts of the Russian Federation; shows the dynamics of change in machine and tractor fleet determines the rating of the leading Federal districts of the country by availability of agricultural machinery and considers the production of agricultural products. Priority activities of agricultural producers were determined by the leading districts. The dynamics of cultivated areas for grain, their productivity and gross is presented in the paper, the chart of write-off and acquisition of the main types of agricultural machinery is shown where reduction of machine and tractor fleet and decrease in energy supply of tractor producers for agriculture, grain and the forage harvesting combines per 1000 hectares of a cultivated area of the Russian Federation in recent years on the basis of which the conclusion was made about reduction of technical supply. as reduction not only quantities of agricultural machinery is observed but also energy supply of agricultural producers with tractors - and the forage harvesting combines per 1000 hectares of a cultivated area of the Russian Federation. Based on the analysis the main ways to increase the efficiency of agricultural producers were identified.*

Keywords: *machine and tractor fleet, agribusiness, wear, acquisition, agricultural production, reproduction, plant growing, livestock breeding, productivity, gross product.*

The transformations taking place in the domestic agrarian economy in recent decades have led to a significant reduction in the material and technical support of agricultural producers; also there are disproportions in the need and actual updating of material and technical base which makes it urgent to consider current conditions and prospects of machine and tractor fleet development as basis of the material and technical base of agrarian production.

For the last 3 years the fleet of main types of agricultural machinery in the agribusiness of our country declines that is clearly.

For a given period, the Crimean Federal district takes a leading place in increase of grain harvesters and tractors, in 2015 the number of grain harvester combines increased by 43% compared to 2014 and the number of tractors increased by *2%.* Thanks to the effective use of local irrigation sources and introduction of

resource-saving technologies the agribusiness of the Crimea managed to increase yield of grain crops by 14,5% more than in 2014 [1].

Livestock breeding in the Crimea is unprofitable, so there is a need of the complex analysis of the constituent entities activity in the Russian Federation, identification the most effective and perspective directions of development taking into account the natural and climatic features and features of the available resource potential.

Except the Crimean the quantitative structure of machine and tractor fleet in other federal districts decreased on average by 4-5% for 3 years [1].

The leading place for the availability of agricultural machinery is the Volga (Privolzhskiy) Federal District. The agrarian sector of this district is at a high level, the share in production of agricultural products is 22,4% of total agricultural output of Russia that provides it the 2nd place after the Central Federal District.

In the Volga Federal District the plant growing prevails over livestock breeding. The main direction in crop growing is grain production.

However, the agrarian sector of the Volga Federal District needs to be modernized and updated as some of agricultural machinery became outdated or has a high percent of wear of equipment unsuitable for further use that indicates to reduction of machine and tractor fleet in 2015 compared to 2014 [2].

Central Federal District for availability of agricultural machinery takes the 2nd place in a rating of districts. The share of Central Federal District in production of agricultural products is 26,3% of total agricultural products in general which led this district to the first place among all Federal districts [1, 3].

The Siberian Federal District takes the 3rd place in a country rating of districts by the availability of agricultural machinery. Agriculture in this district is widely developed, so, in 2015 production of agricultural products accounted for 12,4% of all agricultural products in Russia. Reduction of agricultural machinery in 2015 occurred at 7,7% that also indicates the need to re-equip machine and tractor fleet of the district [1].

The fourth place is the Southern Federal District it shares the second place with the Volga Federal District in terms of the volume of grain harvesting. Leaving of machinery in 2015 was 6.4% compared to 2014. A sharp decrease in the amount of equipment was due to self-propelled harvesters, in 2015 their number decreased by 10% compared to 2014 [1].

The fifth place belongs to North Caucasus federal district. Intensity of plant growing for which an environment in foothill areas of the district is the most favorable, is much higher, than for livestock breeding. So, leaving of the forage harvesting combines in 2015 was 15% compared to 2014, and grain harvesters and tractors decreased only by 4,5% [1].

To effectively analyze the reasons for the retirement of agricultural machinery in the agricultural sector, it is necessary to estimate the area of sowing, yield and gross yield for the last 3 years For a specific example, let us take the sowing area of cereals, their yield and gross yiel.

A slight increase in cultivated is observed for 2014-2015 (about 1% compared to 2013). Peak growth in gross harvest and grain yields occurred in 2014. The reason for this was mainly weather conditions. In 2015 cultivated areas were further increased, however yield productivity was reduced by 0,4 c/hectare. Weather conditions, in particular drought in the country prevented to gather more grain [1].

One of the powerful reasons for reducing the gross harvest of grain is the high share of agricultural machinery leaving.

During the period from 2013 to 2015, leaving of agricultural equipment is much faster than the acquisition, so, by 2013, 2730 tractor units, 1351 grain harvesters and 756 units of forage harvesters were left. In 2014, the acquisition of these types of agricultural equipment has increased significantly, and in 2015 there is a decrease in the equipment purchased. First and foremost, this indicates a difficult financial condition, a rise in the cost of machinery' and a high credit rating of agricultural producers [4]

Despite the increase in yield and gross harvest, a significant reduction in technology occurs, which causes untimely gathering of agricultural products and leads to economic losses.

Proportionately with decrease in the amount of agricultural machinery also energy supply of agricultural organizations with tractors and combines to 1000 hectares of a cultivated area which indicates financial difficulties of agricultural producers in due time falls to acquire modern equipment [1].

According to this research the following conclusions can be drawn:

There is an obvious need for application of targeted support from the state of agricultural producers in the form of subsidizing, preferential terms for lending of other forms. When implementing this support it is necessary to take into account both the natural and climatic and resource potential of the Federal Districts as a whole. Due to the limited budgetary funds, support is advisable for those districts that have sufficient resource potential for further development.

An important task is to increase energy saturation of machine and tractor fleet which can increase productivity and reduce energy costs . Thus there is a need for determination of proportionality of reduction in the quantitative composition of the fleet and the growth of energy saturation, which will be the subject of lurther research.

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