The Scientific and Expert Council under the Chairperson of the Council of the Federation

The Council on agro-industrial complex and environmental management under the Council of the Federation

Analytical Department, Council of the Federation
(associated member of European Parliamentary Technology Assessment)

Advanced technological developments of Russian scientists in the agriculture sector

On October 4, 2016 the joint meeting of the Presidium of the Scientific-Expert Council subject to the Chairperson of the Council of the Federation and the Council on agricultural and natural resources subject to the Council of the Federation on "Ensuring food security of the Russian Federation" took place in Moscow. Participants of the meeting noted the need to provide Russian farmers with modern equipment and advanced technological developments of Russian scientists.

Russia with its enormous potential in the areas under crops, fresh water, energy and labor resources is one of the key suppliers of agricultural products in the world food market. Condition of the domestic agricultural sector now defines consistently high agricultural production, especially export-oriented grain production, in excess of domestic needs of the country.

Sustainable development of agro-industrial complex, providing the country's food safety and access to world food markets became possible through the use of the latest achievements of science.

Trends of transformation of the Russian agro-industrial complex in the most technically advanced sphere emerged in recent decades. The industry sector demands engineering achievements and robotics, information technology, space, nuclear and nanotechnology, the latest biotechnology.

Agricultural machinery, which equipped with a computer vision system, allows to work without a tractor driver. The capacity of machinery to work steadily in poor visibility conditions, including night time is an important competitive advantage.

Computer Vision System allows to recognize dangerous objects with high accuracy, to determine their size and position for compilation of high precision maps. The project of "smart" agricultural machinery is implemented

by Cognitive Technologies (Russian company – developer of software) in association with the manufacturer of agricultural machinery "Rostselmash" and agro-holding "Soyuz-Agro".

World-famous factory "Rostselmash" also has launched the production of the new generation domestic combine harvester threshers, characterized by high efficiency and easy operation. The machine has a capacity of about 45 t/h and suitable for handling all the traditional cereal crops. Straw separator with a large area of separation and autonomous finish threshing device allow to minimize field losses. Modern platform with the original cutter bar also reduce grain losses due to shedding.

ANLukjanova@senat.gov.ru 8 (495) 697-52-54