

The concept of development of "BMKB-AGROMASH" JSC for 2016-2020

Joint stock company "BOSH MAXSUS KONSTRUKTOR BYUROSII-AGROMASH "(JSC "BMKB-AGROMASH") was transformed in 1995 from HSDB (Head Specialized Design Bureau) on cotton machines, established in 1946.

Since the beginning of 90s, the design Bureau has been conducting research and development, applied and experimental works on creation, testing and introduction of new technologies not only for cotton, but also for other sectors of agriculture (grain, feed, potato, etc.); type of activity - Science.

The authorized capital of the Company amounts to UZS 667 437 500. The value of the property at 01.01.2016 - UZS 4.6 billion.

The company's shareholder:

- "ASIAN NATURAL FOOD" LLC - 34.62%;
- "Uzagrosanoatmashholding" Holding Company - 33.5 % of shares; (Italy) - 16,8 %;
- Individuals - 15.08%.

The company is located at: 210, Sultanali Mashhadiy Str., Yasnobod region, Tashkent, 100007, Republic of Uzbekistan, phone number: +998-71-269-78-16, Fax: +998-71-269-34-8; E-mail: uzbmbk-agromash@mail.ru, info@agromash.uz, url: www.agromash.uz.

Development of website has enabled the introduction of information and communication technologies in Company to optimize business processes, enhance transparency and openness of activities of "BMKB-AGROMASH" JSC.

The total area of territory is 2.8 hectares. The number of employees -85 people, including: engineers and technicians – 34; workers – 20.

Purposes and objectives of development concept.

The purpose of concept is to radically improve the system of organization of research and development (R & D) in direction of improving the complexes of machines for horticulture, viticulture, strengthening the forage base of desert animal husbandry.

The main objectives of concept are:

- maximum universalization and unification of developed machines;
- creation of compact, multi-field experimental base with possibility of production of experimental machines and agricultural machinery in small batches;
- modernization of experimental base (polygon) for laboratory, bench and field testing of machines.

2. Assessment of current state of the design Bureau.

(prerequisites for implementation of development concept)

Development of new equipment in JSC is carried out on technological chain due to functioning of specialized departments in the structure.

The main structural units:

1. Department of design development is developing design documentation for the machine. Transition to computer-aided design is in progress. The Department participates in preparation of production at the manufacturing plants. With a large amount of design work (until the early 90-ies), there were a number of design departments formed by type of machines and performed technological operations (Department of machines for pre-sowing tillage, Department of cotton harvesters, etc.). Due to reduction in development, departments were merged.

2. Department of applied, fundamental and research works. The branch research laboratory carries out research and development of energy-and resource-saving, environmentally friendly technology (Electrotechnology) and technical means for cultivation of crops by this technology.
3. Basic Department of standardization (BOS) – performs work in accordance with the legislation on standardization.
4. Department for production of experimental samples and small series with a total area of 5950 m², equipped with 86 units of technological equipment and has production sites, including: procurement, mechanical, welding, thermal, assembly. Up to 90 % of the equipment has a service life of 25 years or more.
5. Testing Agro-Technical Center (TATC) is accredited by "Uzstandard" Agency in accordance with Uzbekistan State Standard O'zDSt ISO/IEC 17025:2007 standard and conducts trials of agricultural machinery (research, preliminary, acceptance, periodic, control, etc.).
6. Experimental Field Base (EFB) is a legally independent structural unit that provides the necessary conditions for testing of developed equipment. EFB has a cultivated area (for cotton and grain) - 13.8 hectares, for garden - 8 hectares. There are garage, workshops, office building, water tower, fuel storage, weight, equipment for cultivation of crops at the EFB. For testing machines for strengthening of fodder base for deserted livestock, by decision of the regional administrator of Forish district, Jizzak region (May 16th, 2012, No. 327), the joint-stock company was given 200 hectares of desert rangelands. Currently "BMKB-AGROMASH" JSC carries out R & D projects, provided by the State scientific and technical program (SSTP), (information attached). Also, works on direct contracts with enterprises and organizations are carried out.

Financial and economic characteristics for 01.01.2016:

- volume of output– UZS 2964,9 million, including R & D on State scientific and technical programs – UZS 1672,7 million.

Development and production of small batches of resource-saving equipment for desert livestock, orchards and vineyards and other food crops will be the main activities in the future.

These directions are selected based on the following:

Increasing the level of agricultural equipment with modern highly productive machinery, including for horticulture and viticulture, is determined by resolution (May 21st, 2012, № PP-1758) "On the Program of further modernization, technical and technological re-equipment of agricultural production for 2012-2016".

System of machines and technologies for complex mechanization of agricultural production for 2011-2016 provided: 35 items of technical means for gardens, 18 items for vineyards and 7 – for cultivation and cleaning of fodder crops in desert areas.

Currently, the fleet of machines for mechanization of works in gardens and vineyards consists mainly of previously released equipment.

Due to lack of technical means, the level of mechanization is: 15-20 % in gardens, 12-16 % in vineyards.

Also, the use of obsolete and worn-out technical means leads to lower yields, material and labor costs growth.

Currently, the areas occupied by gardens are 261.9 thousand hectares, vineyards – 128.9 thousand hectares.

Resolution of December 29th, 2015 № PP-2460 "On measures for further reformation and development of agriculture for the period 2016-2020" provides for optimization of acreage with placement of vegetable crops and other crops, creation of gardens and vineyards on the released areas.

Previously, "Central Asian agricultural machinery" NGO dealt with issues of mechanization of horticulture and viticulture, the design Department of which was transferred to "BMKB-AGROMASH" JSC in 1993.

Production part was transformed into "Uzbekiston bogdanchik mashinasozlik zavodi" (UzBMZ) JSC producing agricultural machinery for orchards and vineyards until the conversion in 2007.

Thus, there is no single center of design development for mechanization of horticulture and viticulture, comprehensively solving problems of development of technical means which carry out new resource-saving technologies.

In the Republic of Uzbekistan semi-desert and desert (arid) pastures cover an area of about 20 million hectares, the yield of forage crops is 1.5-3 t/ha.

Mostly sheep of Karakul breed are bred in this territory.

Using technology for improvement of arid pastures by developed technology of "BMKB-AGROMASH" JSC, it is possible to increase the yield of forage crops and, accordingly, livestock.

3. Main stages of implementation of purposes and objectives of the concept.

3.1. The main directions and priorities in development of design.

The priority in development of new machines will be given to:

- maximum universalization and unification of created machines;
- creation of combined machines to perform several agricultural operations in one pass of the tractor unit;
- resource saving and environmental protection.

Implementation of these areas will provide:

- productivity increase;
- yield increase;
- saving of human, fuel, water and other resources;
- effective capacity of power facilities.

"BMKB-AGROMASH" JSC will complement the work of design Bureau, newly established in framework of Holding Company, and perform the role of parent organization in development of machinery for horticulture, viticulture, techniques for desert farming.

Batch production of agricultural machinery will be carried out by the Company in cooperation with plants that reduce the need for technical re-equipment of "BMKB-AGROMASH" JSC and increase the capacity of equipment at the enterprises.

After the release of pilot batches and extensive economic inspection of technical means, design documentation for them will be transferred to plants of Holding Company for further serial production.

Preparation of production will be carried out with participation of specialists from "BMKB-AGROMASH" JSC.

3.2. The formation of R & D programs.

Projects of R & D program are based on comprehensive solution of problems of developing the new resource-saving technologies and technical means.

Development machines will be held in conjunction with relevant scientific research institutes (SRI), Uzbek State Center for certification and testing of agricultural machinery and technologies and other organizations primarily in the framework of single projects.

Projects on mechanization of cultivation of orchards, vineyards and development of desert animal husbandry are included in State scientific and technical program for 2015-2017 and are financed from Committee for coordination of science and technology development under the Cabinet of Ministers of the Republic of Uzbekistan (CMRUz).

Taking into account the need to expand the range of agricultural machinery, work will also be carried out under direct contracts with enterprises and organizations for modernization and technical improvement of design of agricultural machines.

3.3. Organization of Design Department work.

In order to improve the quality of design development by 2019, transition to computer-aided design will be fully completed, for which the annual business plans reflect the acquisition of office equipment, software updates and training (advanced training) of personnel.

3.4. Program of machinery production.

"The first priority set of agricultural machinery for orchards and vineyards" (taking into account the possibilities of use of technical means from other complexes and resumption of machinery production in "BMKB-AGROMASH" JSC) was prepared for the first phase of equipping the horticulture and viticulture farms with the necessary equipment.

The primary set of equipment after consultation with stakeholders (first quarter of the year), representing the consumer, will be a programmatic document for technology production in 2016-2017.

By 2018, development of new and modernization of previously produced agricultural machinery, under the Program (attached), will be completed, which will also be a policy document for production of equipment in 2018-2020 after coordination with interested organizations (second quarter of the year).

3.5. Organization of work of pilot production.

In order to create a compact, multi-profile experimental base with possibility of producing experimental machines in small batches, stage-by-stage modernization and technical re-equipment of pilot production will be carried out.

Repair and restoration of existing equipment, maintaining it in working condition will be carried out at the first stage. Relevant activities are included in annual business plan of the JSC.

Modernization of production base, mainly related to painting and welding - assembly work is carried out at the second stage. At the same time, high-tech products, complex metal cutting will be produced at the holding's plants within the framework of production cooperation.

Modern equipment that allows to produce a variety of prototypes and small batches with high quality will be purchased at the third stage. Implementation of this stage will be with borrowed funds.

3.6. Further development of testing and agrotechnical center.

In 2015, Testing and agrotechnical center (TATC) is accredited by "Uzstandard" Agency for the next 5 years.

Annual verification of available measuring instruments and retrofitting with modern equipment, stands, instruments and other test facilities, allowing to ensure the necessary accuracy of measurements and to reduce the time of testing will be carried out in TATC in 2016-2020.

Allocation of own funds in annual business plans will be provided for these activities.

3.7. Organizational structure of Design Bureau.

Organizational structure of JSC was clarified in 2015 (pursuant to Decree of President of Uzbekistan № DP-4720 of 24 April 2015 "On measures to introduce modern methods of corporate governance in joint stock companies").

The company's current activities are managed by General Director and Directors in the areas of work.

Management structure of "BMKB-AGROMASH" JSC attached.

4. Expected result:

Implementation of program will provide:

- reducing the share of manual labor, increasing the productivity of machine-tractor units, increasing the yield of cultivated crops;
- introduction of advanced technologies and new technical means with cost reduction in cultivation, including in gardens - by 1.7 times and in vineyards - by 2.8 or more times;
- increase in productivity of desert pastures by 1.5-2 times and, accordingly, livestock;

- reducing the number of used machines (item – at the expense of universalization, on quantity, at the expense of performance);

- sustainable growth of production of "BMKB-AGROMASH" JSC.

5. Necessary support measures.

In order to expand R & D and to conduct an unified scientific and technical policy in the field of agricultural machinery by "Uzagrosanoatmashholding" Holding Company, it is proposed to form a special Fund at Holding Company from funds of enterprises in the amount of 1% of the cost of sales, provided for by resolution № 1758 of 21 May 2012 "On program of further modernization, technical and technological re-equipment of agricultural production for 2012-2016".

Annex.

1). List of the main projects implemented by "BMKB-AGROMASH" JSC under State scientific and technical program in 2015-2017 and achieved effect in agroindustrial complex of Republic.

2). Priority set of agricultural machines for orchards and vineyards (production for the period 2016-2017).

3). Program of development of new, improvement (modernization) of existing agricultural machines for orchards, vineyards and strengthening the forage base of desert livestock for 2015-2017, (production for the period 2018-2020).

4). Management structure of "BMKB-AGROMASH" JSC.

Director General of
«BMKB-Agromash» JSC

D. A. Ibragimov

Director of Research

A.O. Aripov

Technical and production Director

S.N. Voinov

Chief designer

Y.I. Damaev

Head of Strategic Planning, Business Development
and Investment Department

I.E.Portov