

AGRA 2020 – from soil to table

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From 19 to 23 February 2020, new integrated solutions for agriculture will be demonstrated at the International Agricultural Exhibition „AGRA 2020“, which is traditionally held in Plovdiv. In recent years „AGRA“ has turned into an open platform for innovation and a meeting place for all stakeholders and those employed in agriculture. The forum is rightly considered unique in the Balkans and manages to combine in 4 days in one place agricultural machinery, food, equipment, wine and agricultural crops. Together with the parallel holding of the prestigious exhibitions „VINARIA“ – for viticulture and winemaking, „FOODTECH“ – for the food industry, and „Tastes from Italy“ „AGRA“ succeeds in creating better conditions for the presentation of companies from different sectors, which have common marketing interests. Around 700 companies from 30 countries participate in the forum every year.

The focus of this year's exhibition is animal husbandry. For the first time, bulls from the world's most renowned beef breeds will be presented, with the elite specimens parading every day in a special ring.

Along with the main focus of the forum, many technological innovations in the field of agriculture will be showcased and new varieties of cereal, oilseed and legume crops, developed by the research institutes within the Agricultural Academy, will be presented. Among them is the first Bulgarian sunflower hybrid in which, through breeding, genes for resistance to the parasite broomrape have been incorporated. The new variety is high-yielding and high-oil, suitable for cultivation throughout the country. It is an achievement of the Dobrudzha Agricultural Institute – General Toshevo, which also offers a winter fodder barley for organic production. A new barley variety, whose advantages are productivity, nutritional value and resistance to diseases and drought, has been developed by the Institute of Agriculture in Karnobat.

Four types of maize hybrids have been created with the aim of ensuring yield stability under different growing conditions. They are the work of the Maize Research Institute in Kneja.

The only multifunctional machine in the world for the cultivation of rose plantations will make its premiere during the International Agricultural Exhibition „AGRA 2020“. This machine is intended for mechanized harvesting of oil-bearing rose and for implementing resource-saving pest control in rose plants, application of products for stimulating plant growth, irrigation of plantations in dry periods, selective pruning, transport and other operations in small and medium-sized rose-producing farms. The development is by scientists from the "Nikola Pushkarov" Institute. They also offer an innovative method for cleaning agricultural land from heavy metals. Plants that extract the harmful deposits are used.

The most significant applied scientific achievement of the Space Research and Technology Institute for 2019 will also be shown for the first time at „AGRA“. This is an integrated system for remote determination of the condition of crops, which is an innovation on a European scale. Agricultural land is photographed by a drone, and the information is recorded and analyzed on a server. Also a European innovation is the platform for electronic trade in cereal, oilseed and legume crops, developed by a Bulgarian company.

Innovation Competition at „AGRA 2020“

In the Innovation Competition, which traditionally will be held within the framework of the International Agricultural Exhibition AGRA 2020, 10 of the institutes of the Agricultural Academy will participate, presenting a

total of 16 scientific products. These are above all competitive varieties and technologies for crop production, among which new varieties and hybrids for grain production, viticulture and vegetable production predominate. They are followed by an impressive range of new products and technologies for the food industry, and machinery and implements for crop production.

The new varieties of the Agricultural Academy, which will be seeking recognition and awards in the Innovation Competition at AGRA 2020, are as follows:

- white head cabbage variety Bilyan of the Maritsa Vegetable Crops Research Institute, combining high productive potential, vigor, good morphological, chemical and taste qualities, very good resistance to cracking and tolerance to diseases and pests;
- common wheat SASHETS – a joint development by a team of scientists from the Institute of Plant Genetic Resources – Sadovo and the Field Crops Institute – Chirpan, which has very good baking qualities combined with high yield, demonstrated in the trials of IASAS;
- new wine grape variety „Misket Viking” of the Institute of Agriculture and Seed Science „Obraztsov Chiflik” – Ruse, suitable for organic viticulture and winemaking;
- new spring barley variety Venera of the Institute of Agriculture – Karnobat, which has high productivity and nutritional value of the grain combined with very high disease resistance and drought tolerance;
- new triticale variety Doni-52 of the Dobrudzha Agricultural Institute, General Toshevo, which has very good resistance to powdery mildew, brown, yellow and stem rust, fusarium, septoria and has a productive potential of 8-9 t/ha;
- winter multi-row barley variety Fanagoria of the Dobrudzha Agricultural Institute, General Toshevo.
- new sunflower hybrid Enigma CLP of the Dobrudzha Agricultural Institute, General Toshevo
- maize hybrids: Kneja 320, Kneja 564, Kneja 565 and Kneja 648 of the Maize Research Institute – Kneja.

In the section „Machinery and implements for crop production” and „Scientific activity and developments” of the Innovation Competition at AGRA, the following developments will participate:

„Multifunctional machine for roses” of the Institute of Soil Science, Agrotechnologies and Plant Protection (ISSAPP) „N. Pushkarov”, Sofia, at the Agricultural Academy.

„Installation for purification of sunflower oil using an ultrasonic field”.

„Integrated system for remote determination of the condition of agricultural crop stands”. The system includes: a system for data collection and preliminary processing; a system for generating cartographic products; a server for processing and analysis of data and multispectral images.

„Cover beehive board with extended technological capabilities” of the Institute of Animal Science – Kostinbrod at the Agricultural Academy. With the beehive board, real and induced supersedure of the queen bee in the hive will be carried out, eliminating all manipulations and activities related to traditional introduction.

In the section „New products and technologies for the food industry“ of the Innovation Competition, the following products will participate:

FibrinoZIME – an enzyme product with fibrinolytic action, developed by the Institute of Cryobiology and Food Technologies – Sofia

Algopak – an edible food packaging, developed by the Institute of Cryobiology and Food Technologies – Sofia

Diabetic bread „Energy bio“, developed by the Institute of Cryobiology and Food Technologies – Sofia

Muffin with natural sugar substitutes – mesquite flour and coconut sugar, Institute of Canning and Quality of Food – Plovdiv.

Specialists in the field of agriculture will also see the latest generation of technologies, digital solutions for farms, machinery, implements, seeds and planting material, fertilizers and plant protection products from leading companies participating in „AGRA 2020”.

More than 40,000 visitors are expected to visit the International Agricultural Exhibition, and three of them will win the prizes provided by the International Fair Plovdiv. At the same time, the prestigious exhibitions „VINARIA“ – for viticulture and winemaking, „FOODTECH“ – for the food industry, and „Tastes from Italy“ are held there.