

Day of Open Doors at DZI – demonstration of innovative varieties and technologies for smart agriculture

Автор(и): ДЗИ в гр. Ген. Тошево

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On 9 June, the Dobrudzha Agricultural Institute once again opened its doors wide to farmers, business partners and scientists from across the country, united around the idea of supporting the production and market realization of seeds from high-quality and high-yielding Bulgarian varieties of cereal crops – a guarantee of security in domestic agriculture. The event was held under the motto “Authentic varieties and innovative technologies for sustainable agriculture!”.

The day began with a press conference attended by regional and national media.



At the official opening by the Director of the Institute, Assoc. Prof. Eng. Iliia Iliev, the following guests were present: Galin Gospodinov – Regional Governor of Dobrich Region, Valentin Dimitrov – Mayor of General Toshevo, Deyan Dimitrov – Deputy Mayor of General Toshevo, Eng. Desislava Ivanova – Director of the Regional Directorate of Agriculture – Dobrich, and representatives of the Institute's long-standing partner companies from the Republic of Turkey – Birol Tarar from „Tarar“ and Kemal Yuzturk from „Dobrudzha Tohumculuk“.

„The Dobrudzha Agricultural Institute manages to withstand the challenges of dynamic events and crisis shocks on both national and global scale. During the past agricultural year, we successfully carried out seed production and placed on the market 90% of all processed seeds. It is encouraging that in recent years there has been a trend among agricultural producers towards preferring the cultivation of Bulgarian varieties of cereal crops, in particular those of the Dobrudzha Agricultural Institute“, shared the Director of the Institute.

„For our breeders, this is an incentive to create even higher-quality and higher-yielding varieties. Beyond the usual activities carried out at the Institute, teams of our scientists participate in new research programmes of the Ministry of Education and Science – „Healthy foods for a strong bioeconomy“, „Environment“ and „Smart crop production“. The focal points are:

- Studying the effect of climate change on agricultural ecosystems that are a priority for our country and their response;
- Generating new knowledge as a basis for developing flexible models and technological solutions for the management of production agro-systems, including local genetic resources and raw materials, crops, varieties and hybrids resistant to climate change;

- Providing a sustainable bio-resource base at regional and national level.

Targeted research regarding the application of artificial intelligence and digital technologies in agriculture will lead to reduced costs for farmers, improved soil management and water quality, and reduced use of fertilizers and pesticides.

More than 40 cereal crop varieties developed at the Institute were presented to the participants in the event. They had the opportunity to observe in the field the development of stands of common and durum wheat, triticale and barley varieties. Among them are common wheat varieties from group A, distinguished by excellent grain quality – Pchelina, Merilin and Lazarka; from group B – Enola, Rada, Kristalina, Kosara, Fani, Zhana, Bozhana, Kiara, Katarzhina, Korona and Dragana; from group V – Nikodim, Kami and Kalina; the durum wheat Severina; the triticale varieties Respect, Dobrudzanets, Doni-52, Borislav and Blagovest; the barley varieties Ahat and Tangra. Seeds of all these varieties will be offered for the autumn sowing campaign of 2022. Specialists from the Institute provided information on specific questions related to the main advantages and cultivation technology of the offered varieties.

The latest cereal breeding achievements were presented by the common wheat varieties Shibil, Chudomira, Fedora, Indzhe and Andronia; the alternative-type wheat Moresa; the triticale varieties Avitohol, Teran and Hokey; the barley varieties Brilliant and Tsitrin. A distinctive feature of these varieties is their ecological plasticity, resistance to the most widespread diseases, high yield potential and very good grain quality.



Guests had the opportunity to visit demonstration plots sown with field bean varieties – Elixir and Skitia (a variety with an erect bush, suitable for direct mechanized harvesting, which significantly facilitates farmers and reduces costs when harvesting this variety).

Sunflower, although still in an early stage of development, was represented by the variety Favorit and the hybrids Krasela, Enigma CLP and Dara, as well as by the parental lines for seed production of the sunflower hybrids Krasela, Enigma CLP, Dalena CLP and Deveda. The hybrids Deveda, Enigma CLP and Krasela are winners of the Innovation Contest at the AGRA International Agricultural Exhibition in Plovdiv in 2019, 2020 and 2022 respectively.

It was emphasized that this year, on an area of 83.3 decares, the Dobrudzha Agricultural Institute is growing agricultural crops under organic production conditions – soybean, bean, rye and einkorn wheat – a new field of activity, which is a prerequisite for the development of modern and environmentally friendly agriculture.

The programme continued with a discussion on the application of smart agriculture – the future of agricultural production. Assoc. Prof. Dr. Galina Mihova presented "Breeding solutions and digital technologies for sustainable production", and Dr. Hristo Stoyanov delivered a presentation on "Impact of meteorological conditions on the development of cereal crops in Dobrudzha". A discussion was held with farmers on current

topics related to the implementation in production of innovative scientific products of the Dobrudzha Agricultural Institute.



At the festive outdoor cocktail, guests had the opportunity to taste various types of bread made from wheat varieties developed at the Institute.