



*Scientific Association of Geneticists and Breeders of the Republic of Moldova (SAGBRM)*  
*Institute of Genetics, Physiology and Plant Protection (IGPPP)*  
*Center of Functional Genetics, Moldova State University (CFG, MSU)*  
*Moldovan Research and Development Association (MRDA)*

# **XI<sup>th</sup> International Congress of Geneticists and Breeders from the Republic of Moldova**

## **ABSTRACT BOOK**

June 15-16, 2021  
Chisinau, Republic of Moldova

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**TUESDAY - June 15, 2021**

- 9<sup>30</sup> - 10<sup>00</sup> Registration**  
**10<sup>00</sup> - 10<sup>30</sup> Opening Ceremony**  
**10<sup>30</sup> - 11<sup>00</sup> Public lecture** presented in the cycle of Academic Lectures  
**"MOLECULAR TECHNIQUES AND INFORMATION TECHNOLOGIES IN MODERN AGRICULTURE"**  
Acad., Prof., Maria DUCA, Moldova State University  
**11<sup>00</sup> - 11<sup>15</sup> Coffee Break**  
**11<sup>15</sup> - 13<sup>00</sup> Plenary Session**  
**13<sup>00</sup> - 14<sup>00</sup> Lunch Break**  
**14<sup>00</sup> - 17<sup>00</sup> Thematic Sessions**  
**15<sup>00</sup> - 17<sup>30</sup> International Webinar**  
**"SUNFLOWER GENETIC RESOURCES FOR BREEDING: GERMPLASM EVALUATION AND CONSERVATION"**  
organized under the auspices of *International Sunflower Association (ISA), France*

**WEDNESDAY - June 16, 2021**

- 10<sup>00</sup> - 12<sup>00</sup> Thematic Sessions**  
**12<sup>00</sup> - 13<sup>00</sup> Lunch Break**  
**13<sup>00</sup> - 13<sup>30</sup> Congress conclusions on Thematic Sessions**  
**13<sup>30</sup> - 14<sup>00</sup> Final decision of the Congress**  
**14<sup>00</sup> - 14<sup>30</sup> Report on the activity of the SAGBRM**  
**14<sup>30</sup> - 15<sup>00</sup> Election of the leadership of the SAGBRM**

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## GENERAL AND MOLECULAR GENETICS



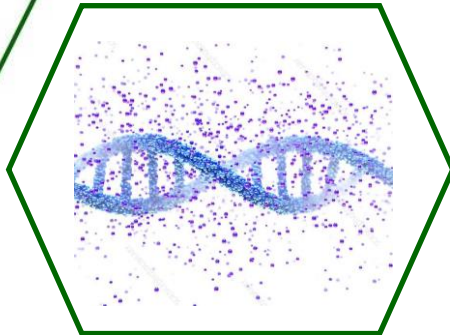
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## GENE BANKS FOR WILD AND CULTIVATED SUNFLOWER

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Modern breeding of sunflower (*Helianthus annuus* L.), which started 100 years ago, increased the number and the diversity of cultivated forms. In addition, for more than 50 years, wild sunflower and other *Helianthus* species have been collected in North America where they all originated. Collections of both cultivated and wild forms are maintained in gene banks in many countries where sunflower is an important crop. Cultivated material includes land races, open pollinated varieties, synthetics and inbred lines. The majority of wild accessions are ecotypes of wild *Helianthus annuus*, but also 52 other species of *Helianthus* and a few related genera.

The USDA sunflower gene bank has been in Ames, Iowa since 1948. Majority of the wild accessions are wild *H. annuus* but the collection also contains more than 600 other wild annual and 900 perennial accessions. In France, the sunflower collection is maintained by INRA at Toulouse. The material includes wild *Helianthus* species and more than 2300 cultivated lines originating mostly from INRA. IFVCNS (Serbia) collection of wild species was founded in 1980 and primarily used for disease resistance interspecific breeding program. It now contains 21 perennial and 8 annual species. The Vavilov Research Institute for Plant Genetic Resources (Russia) is the oldest gene bank for sunflower, with the first entries in 1922 and more than 2200 accessions. DAI-General Toshevo (Bulgaria) maintains a collection as important initial material for research and breeding for resistance to abiotic and biotic stress factors. The INTA sunflower gene bank is located at Manfredi (Cordoba). The collection includes naturalized wild accessions from Argentina. ICAR-IOR (India) coordinates sunflower network in India while ICAR-NBPGR facilitates import and maintenance. The INIA gene bank contains collection of confectionary type landraces collected in Spain. The collection at Turkey holds 942 locally collected confectionery and oilseed sunflower landraces.

The available online platforms can be used to access information and genetic resources, but not all material is presented, nor available, even though significant collections also exist at IPK-Germany, NARDI-Romania, China, Canada and other countries.

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