

International Genebank for the Drylands, ICARDA, Lebanon and Morocco



Genebank at a Glance

Full name	International Genebank for the Drylands
Country	Lebanon and Morocco
Year established	1984
Conservation methods and facilities	Seed
Number of staff	19
Total number of accessions	152,223
Number of accessions distributed annually	20,500

Recent Highlights

- The use of the collection for pre-breeding efforts involves the discovery of landraces and wild species holding genes for valuable traits such as drought resistance, salinity and heat tolerance, disease tolerance, and improved nutritional content. By breeding these traits into existing crop varieties, ICARDA enhances the adaptability and resilience of agricultural systems, particularly in regions vulnerable to climate change.
- Research activities include seed longevity studies, which focus on optimizing seed storage conditions to prolong viability.
- The genebank conducts diversity studies by characterizing the phenotypic and genetic diversity within crop collections. This helps identify valuable traits and genetic resources for breeding programs. A continuous gap analysis helps understand the representation of the collection and identifies gaps within the genebank, ensuring that critical diversity is not lost and that the collection remains comprehensive.
- Ongoing training in techniques of seed collection, conservation, and utilization ensures that countries can independently and reliably manage and utilize their own genetic resources for agricultural development. ICARDA is actively participating in the Crop Trust-led BOLD project, initially focusing on national genebanks in Lebanon and Morocco.
- ICARDA faced a critical challenge when the collection in Syria became inaccessible due to the conflict. ICARDA's genetic resources team managed to re-establish the collection by retrieving a safety duplicate from the Svalbard Global Seed Vault and other reliable genebanks. Through hard and meticulous effort, the team conducted an intensive regeneration program to ensure the conservation of this genetic diversity. In less than 10 years, ICARDA not only restored its collection but also made it available to the international community.



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