



Plot harvesting by hand, Terbol station, photo: A. Shehadeh

Context

- ICARDA exploited the 35,000 accessions of forage, pastures and range genetic resources in its genebank to enrich the forage agrobiodiversity in the MENA region
- most of them are not tested under agricultural conditions

Our innovative approach

- under the project, a total of 1355 forage pastures and range species accessions of fourteen genus from the ICARDA's genebank were tested to field evaluation under rainfed conditions for drought resistance and high biomass yield in the ICARDA research station in Terbol, 2018-2020, Lebanon
- suitability to cutting, grazing and combination of both have been evaluated using the parameters of biomass yield, sward density and sward height (observation scale from 1 – 9) under intensive and extensive dryland systems



ENVIRONMENTAL HEALTH & BIODIVERSITY

Enriching Agrobiodiversity of Annual Forage and Range Plant Species in Semi-Arid Regions in the Middle East and North Africa from the ICARDA Genebank

- using ICARDA's genebank for farmers
- on-station screening and on-farm evaluation
- community-based seed multiplication and dissemination



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Outcomes

- out of 1355 forage and range plant accessions tested, a total of 279 accessions were selected consisting of 109 accessions (8.0 %) and 170 accessions (12.5 %) with high potential of forage production and rangeland improvement under intensive and extensive dryland systems
- most of the selected accessions are annual Medicago species (68.1 %) and Trifolium species (22.9 %). The remaining 9.0 % accessions are Trigonella sp., Astragalus sp., Hedysarum sp., Melilotus sp., Coronilla sp. and Hymenocarpus sp.

Future steps

- In a next phase the selected species will be subjected to:
 - (a) assessment of nutritional values
 - (b) on-farm evaluation under grazing and cutting and carry management
 - (c) a community-based seed multiplication and dissemination

Partners

LARI (Lebanese Agricultural Research Institute)

INRA Morocco



The CGIAR Research Program on Livestock thanks all donors & organizations which globally support its work through their contributions to the [CGIAR Trust Fund](https://www.cgiar.org/funders). [cgiar.org/funders](https://www.cgiar.org/funders)



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