



MELSpace & MELData:

Metadata access via OAI-PMH and REST API

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The International Center for Agricultural Research in the Dry Areas (ICARDA) is a treaty-based, autonomous, non-profit, international organization that was established in 1975, and is governed by a Board of Trustees. Under the auspices of the CGIAR System, and in accordance with the provisions of the Charter, ICARDA focuses on delivering innovative solutions for sustainable agricultural development in the non-tropical dry areas of the developing world. ICARDA provides innovative, science-based solutions to improve the livelihoods and resilience of resource-poor smallholder farmers. This is done through strategic partnerships, linking research to development and capacity building, and by considering gender equality and the role of youth in transforming agriculture in non-tropical dry areas.

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The Monitoring, Evaluation and Learning (MEL) team of ICARDA improves the decision-making and impact of research organizations through four areas of expertise: monitoring and evaluation to plan, implement and evaluate the impact of projects and programs throughout the project lifecycle; knowledge management to capitalize on learning, dissemination and knowledge sharing; data management to collect data and ensure its quality and accuracy; and research software development to improve digital applications in support of the work.

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Revision history

Version	Date	Originator(s)	Reviewer(s)	Description
1.0	June 10, 2026	Valentina De Col		Structure, content
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Acronyms & Glossary

API: Application Programming Interface

DC: Dublin Core

JSON: JavaScript Object Notation

MELData: ICARDA's public repository for disseminating approved datasets.

MELSpace: ICARDA's public repository for disseminating approved knowledge products.

MODS: Metadata Object Description Schema

OAI-PMH: Open Archives Initiative Protocol for Metadata Harvesting

REST: Representational State Transfer

Brief introduction

This brief document describes the metadata exposure and harvesting services offered by ICARDA's knowledge repositories – MELSpace (publications) and MELData (datasets) – including access via the [Open Archives Initiative Protocol for Metadata Harvesting](#) (OAI-PMH) and Application Programming Interface (API).

Repositories overview

Repository	Content	Technology	URL
MELSpace	Publications	DSpace	https://repo.mel.cgiar.org/home
MELData	Datasets	Dataverse	https://data.mel.cgiar.org

OAI-PMH endpoints

MELSpace (publications)

- General endpoint: <https://repo.mel.cgiar.org/server/oai/>
- FAO-AGRIS dedicated set: https://repo.mel.cgiar.org/oai/icarda_agris

MELData (datasets)

- General endpoint: <https://data.mel.cgiar.org/oai>

Supported metadata formats

MELSpace supports harvesting via [OAI_DC](#) (Simple Dublin Core) and [MODS](#) (Metadata Object Description Schema), the latter enabling richer resource-level representation. MELData datasets exposed via OAI-PMH currently use Simple Dublin Core.

Search API for MELSpace and MELData

MELSpace and MELData also provide a Search API that exports metadata in JSON format, supporting programmatic access for external systems:

- MELSpace: <https://repo.mel.cgiar.org/server/api/discover/search/objects?dsotType=item&embed=thumbnail,owningCollection/parentCommunity&size=10&page=0>
- MELData: https://data.mel.cgiar.org/api/search?q=*&type=dataset

Implementation history

Since 2024, MELSpace has supported OAI-PMH harvesting, configured by the MEL Team in collaboration with the CodeObia team, alongside the MODS metadata prefix for richer representation beyond OAI_DC. These improvements have enabled external systems, including [FAO AGRIS](#), to automatically harvest ICARDA research content. For datasets, ICARDA worked with Dataverse metadata support team in early 2024 and established OAI-PMH endpoints for ICARDA and other CGIAR Centres that previously lacked them.

Notes for metadata consumers

[AGROVOC](#) (FAO's multilingual, controlled vocabulary) keywords are captured during data entry in the MEL platform but are exported as plain text (mapped to dc:subject in OAI_DC, or subject/topic in MODS) rather than using qualified AGROVOC encoding. External systems harvesting via OAI-PMH should be aware that these terms will not be automatically recognizable as structured AGROVOC vocabulary and may require matching against the AGROVOC thesaurus if structured handling is needed.

Contact

For questions or requests related to this document, please contact: mel-support@cgiar.org.