

Metadata fields description with examples for ICRISAT open data platform

(* fields are mandatory)

Title*

A simple title that is meaningful and fits the dataset.

Standard practice is to start the title with **xxx Data on** followed by the title, where xxx can be Phenotype/Genotype/Spatial/Social science/Soil/Weather etc.

Example: GBS Data for concurrent improvement of sorghum fodder yield and quality under water-stressed condition

Description*

A summary describing the data, its purpose, nature, scope of the Dataset, and its utilization.

Example: This dataset contains the phenotypic data on chickpea - Kabuli improvement at ICRISAT. Chickpea breeding program of ICRISAT supplied samples of breeding materials, which included advanced breeding lines, varieties, segregating populations, marker-assisted backcross lines, near-isogenic lines and other genotypes for evaluation by partners during 2016-17. Twenty entries with a local check were evaluated in two replication following RCBD design, the entries evaluated were uniform across the location except for local checks. The phenotypic evaluation data was received from all locations and were analyzed individually. Scientists can select entries for further evaluation and use them in the breeding programs based on the phenotypic performance at respective locations.

Author/authors*

The person(s), responsible for creating the work.

It should be of the format

(a) Last name, First name (Naming convention followed by ICRISAT Dataverse. DO NOT COPY FROM PUBLICATION)

(b) Affiliation (Organization name),

(c) ORCID id.

All the fields including ORCID id are mandatory.

All the authors corresponding to the dataset should be included.

Author * ?

Name * ?

Kholova, Jana

Affiliation ?

ICRISAT

Identifier Scheme ?

ORCID

Identifier ?

https://orcid.org/0000-0001-7133-1382



Keywords*

Keywords describe the important aspects of the dataset. They are used for building keyword indexes, for classification, and search a dataset. Providing as many keywords with controlled vocabulary helps generate visibility to the dataset.

Keyword ?

Term ?

Vocabulary ?

Vocabulary URL ?

Enter full URL, starting with http://

+

-

Purpose	Ontology
http://www.croponontology.org/	Trait and other crop-related terms
http://agrovoc.uniroma2.it/agrovoc/agrovoc/en/	General terms related to socio-economic, phenotypic, or genotype

Steps to get keywords from the controlled vocabulary

Crop Ontology

Crop	Ontology Link
Chickpea	http://www.croponontology.org/ontology/CO_338/Chickpea
Groundnut	http://www.croponontology.org/ontology/CO_337/Groundnut
Pearl millet	http://www.croponontology.org/ontology/CO_327/Pearl%20millet
Pigeonpea	http://www.croponontology.org/ontology/CO_341/Pigeonpea
Sorghum	http://www.croponontology.org/ontology/CO_324/Sorghum
Other	http://www.croponontology.org/

Steps:

- Open respective crop ontology
- Find the required Trait, open its method and value (till the last expansion).
- Select the identifier and open in a new tab
 - http://www.croponontology.org/rdf/CO_324:0000391
 - Convert it by modifying url as follows
 - Replace **rdf** with **terms**
 - Append **/** at the end
 - http://www.croponontology.org/terms/CO_324:0000391/

Crop Ontology Curation Tool

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Sorghum Ontology

Ontology curators

- Praveen Reddy, ICRISAT

Scientists

- Ibrahima Sissoko, breeder, ICRISAT
- Eva Weltzien, breeder, ICRISAT
- Jean-François Rami, breeder, CIRAD
- Niaba Temé, breeder, IER

Crop Lead Center

Partners

CO_324

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Traits, methods and scales

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English ▼



Sorghum traits

Term information

Name

Per



Sorghum Ontology

Ontology curators

Scientists

Crop Lead Center

Partners

CGIAR research
program

- Praveen Reddy, ICRISAT

- Ibrahima Sissoko, breeder, ICRISAT
- Eva Weltzien, breeder, ICRISAT
- Jean-François Rami, breeder, CIRAD
- Niaba Temé, breeder, IER



CO_324

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Traits, methods and scales

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- Sorghum traits
 - Agronomical traits [is_a](#)
 - Biotic stress traits [is_a](#)
 - Morphological traits [is_a](#)
 - Phenological traits [is_a](#)
 - Quality traits [is_a](#)

Term information

Name [Permalink](#) [General](#) [Comments](#)

Traits, methods and scales

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- Sorghum traits
 - Agronomical traits [is_a](#)
 - Cytoplasmic male sterility [is_a](#)
 - Effective tiller number [is_a](#)
 - Effective tiller number - Counting [method_of](#)
 - tiller/plant [scale_of](#)
 - Empty panicle number [is_a](#)
 - Grain dry matter basis yield [is_a](#)
 - Grain dry matter content [is_a](#)
 - Grain harvest index [is_a](#)
 - Grain moisture content [is_a](#)
 - Grain number per panicle [is_a](#)
 - Grain standardized yield [is_a](#)

Term information

tiller/plant [Permalink](#) [General](#) [0 Comments](#)

Identifier CO_324:0000391

Scale class Numerical

Scale name tiller/plant

created_at Fri Feb 02 13:05:01 UTC 2018

name tiller/plant

[Add a new attribute](#)

Agrovoc

Steps:

- Open Agrovoc ontology
- Search for the corresponding word and select the URL.

The screenshot shows the AGROVOC Multilingual Thesaurus interface. The top navigation bar includes the FAO logo, the text 'Food and Agriculture Organization of the United Nations', and links for 'Vocabularies', 'About', 'Feedback', and 'Help'. The main header is 'AGROVOC Multilingual Thesaurus' with a 'Content language' dropdown set to 'English' and a 'Search' button.

On the left, there are two tabs: 'Alphabetical' and 'Hierarchy'. Below them is an alphabetical index from A to Z and 0-9. The 'Alphabetical' tab is active, showing a list of terms starting with 'A', including 'A horizons', 'Aaptosyax grypus', 'Aaron's rod', 'ABA', 'Abaca', 'abachi', 'Abalites stellaris', 'abalone culture', 'abalones', 'abamectin', 'abandoned land', 'abattoir byproducts', 'abattoirs', 'Abbottina rivularis', 'abbreviations', 'abdomen', 'abdominal cavity', 'abdominal fat', 'abdominal pregnancy', 'Abelmoschus', 'Abelmoschus esculentus', 'Abelmoschus moschatus', 'Aberia', 'Abies', and 'Abies alba'.

On the right, the 'Vocabulary information' section displays details for the 'AGROVOC Multilingual Thesaurus', including the title, last modified date (Wednesday, September 2, 2020 09:42:42), type (http://www.w3.org/2004/02/skos/core#ConceptScheme), VOID:INDATASET (http://aims.fao.org/aos/agrovoc/void.ttl#Agrovoc), and URI (http://aims.fao.org/aos/agrovoc). Below this, there are two tables: 'Resource counts by type' and 'Term counts by language'.

The 'Resource counts by type' table shows:

Type	Count
Concept	37792

The 'Term counts by language' table shows:

Language	Preferred terms	Alternate terms	Hidden terms
Arabic	25486	1102	0
Catalan	229	2	0
Czech	25486	1102	0

Below the search bar, the search results for 'livelihood' are displayed. The search bar is highlighted with an orange box. The results show 2 results for 'livelihood'. The first result is 'livelihood diversification (en)', which is a socio-economic development (en). It is followed by translations in Arabic, Chinese, Czech, French, Italian, Russian, Spanish, and Turkish. The second result is 'livelihoods (en)', which are entities (en). It is followed by translations in Arabic, Chinese, French, German, Italian, Russian, Spanish, and Turkish. The URL for the second result is highlighted with an orange box: http://aims.fao.org/aos/agrovoc/c_1374498089962.

Example: Shoot fly incidence (CROP ONTOLOGY) http://www.cropontology.org/terms/CO_324:0000067/

Stay-green (CROP ONTOLOGY) http://www.cropontology.org/terms/CO_320:0001215/

Livelihoods (AGROVOC) http://agrovoc.uniroma2.it/agrovoc/agrovoc/en/page/c_1374498089962

Surveys (AGROVOC) http://agrovoc.uniroma2.it/agrovoc/agrovoc/en/page/c_7537

Publication

The publication that uses the data from this dataset. This should include a full bibliographic citation for the related publication. Type of digital identifier for this publication and its identifier(DOI number or URL of the publications).

For published data, publication information is mandatory.

Related Publication ?

Citation ?

Varshney, R.K., Thudi, M., Nayak, S.N. et al. Theor Appl Genet (2014) 127: 445.



ID Type ?

doi

ID Number ?

10.1007/s00122-013-2230-6

URL ?

Enter full URL, starting with http://

Notes

Additional important information about the dataset.


Producer*

The producer has financial or administrative responsibility for this Dataset. It can be an organization name or person name who produced/generated the data.

For every dataset, at least two producers should be specified:

1. Information about the project. This includes the project name, and link to the website(if any)
2. Information about institution
 - If the data is generated only by ICRISAT then the producer is ICRISAT
 - If the data is produced by the partner institute then the producer is the partner institute.
 - If the data is generated by both the ICRISAT and partner institute, then both are producers.

Example:

1. ICRISAT Project: Improving Postrainy Sorghum Varieties to Meet the Growing Grain and Fodder Demand in India – Phase 2 <http://gems.icrisat.org/gems-projects/aci-ar-improving-postrainy-sorghum-varieties-to-meet-the-growing-grain-and-fodder-demand-in-india-phase-2/>
2. International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) <http://www.icrisat.org/> 

Producer ?

Name ?

1. ICRISAT Project: Tracking change in r

Affiliation ?

Abbreviation ?

VDSA

URL ?

http://vdsa.icrisat.ac.in/

Logo URL ?

http://vdsa.icrisat.ac.in/vdsa-images/vds:

Name ?

2. International Crops Research Institute

Affiliation ?

Abbreviation ?

ICRISAT

URL ?

http://www.icrisat.org/

Logo URL ?

http://www.icrisat.org/wp-content/upload:

Contributor

The organization or person, responsible for either collecting, managing, or otherwise contributing in some form to the development of the resource.

Various available contributor types are: Data collector, Data curator, Data Manager, Editor, Hosting Institution, Project Leader/Manager, Research Group, Supervisor, other

Example: Research Group: International Rice Research Institute(IRRI)

Research Group: National Centre for Agricultural Economics and Policy Research (NCAP))

Grant information*

- Funding agency name.
- Grant number

Example: Bill & Melinda Gates Foundation: 12345

Distributor*

The organization designated by the author or producer to generate copies of the particular work including any necessary editions or revisions.

Name of organization, Affiliation, Abbreviation, URL

Example: International Crops Research Institute for the Semi-Arid Tropics

Distributor ?

Name ?

International Crops Research Institute fo

Affiliation ?

Abbreviation ?

ICRISAT

URL ?

http://www.icrisat.org/

Logo URL ?

http://www.icrisat.org/wp-content/upload:

Depositor

The person (*Last name, First name*) or the name of the organization that deposited this Dataset to the repository.

Time Period Covered*

The period to which the data refer. It reflects the time covered by the data, not the dates of coding or making documents machine-readable or the dates the data were collected.

Example: start: 2012-08-14; End: 2013-11-25

Date of Collection*

It contains the date(s) when the data were collected.

Example: start: 2012-08-14; End: 2013-11-25

Production place*

Place where the survey/ experiment was conducted. Name of the place, Province, City, Country. If available please provide the geographical location using latitude and longitude.

Example: ICRISAT, Patancheru, Hyderabad, India, RP-14A,

Babrol, Gujarat, India, longitude - 73.753818; latitude – 22.643788

Kind of data*

Type of data included in the file.

(Example: Trial data, phenotypic data, socio-economic data, survey data, census/enumeration data, aggregate data, administrative records data, experimental data, coded textual, coded documents, observation data/ratings, process-produced data, or other)

Software

Information about the software used to generate the Dataset. Name of the software used along with version information

(Example: TASSEL-12)

Data source

List of books, articles, serials, or machine-readable data files that served as the sources of the data collection

(Examples: If the project used 'Survey of India' for primary data, then the data source is Survey of India.)

File Name

The filename should contain only characters and should follow sentence case. All phenotypic, survey data should be in XLSX format. If there are multiple files they should be numbered.

<input type="checkbox"/>		1.Growth and development.docx MS Word (docx) - 18.8 KB - Sep 14, 2020 - 8 Downloads MD5: 7b96abe9484555de84059f502febee23
<input type="checkbox"/>		1.Growth and development.xlsx MS Excel (XLSX) - 858.4 KB - Sep 14, 2020 - 0 Downloads MD5: 3ffe7f638e3150969372d8f31f7990a5
<input type="checkbox"/>		2.Experiment.docx MS Word (docx) - 14.5 KB - Sep 14, 2020 - 0 Downloads MD5: 90df25b1633de1f4a349a5f965cab620
<input type="checkbox"/>		2.Experiment.xlsx MS Excel (XLSX) - 113.0 KB - Sep 14, 2020 - 0 Downloads MD5: a8bd42bdf0a1669d884ffe3cf705a584
<input type="checkbox"/>		3.Geno type.tab Tabular Data - 3.0 KB - Sep 14, 2020 - 0 Downloads 7 Variables, 90 Observations - UNF:6:PbA3wnXSwgAUxCOyWXxHVw==
<input type="checkbox"/>		3.Genotype.docx MS Word (docx) - 12.1 KB - Sep 14, 2020 - 0 Downloads MD5: 035dafc454114a028aaed9f89817bb39
<input type="checkbox"/>		4.Soil bulk density.docx MS Word (docx) - 13.6 KB - Sep 14, 2020 - 0 Downloads MD5: 184224342bf5dc077fdee00091552d1a

Explanation File

Along with each of the data files, a definition/code file should be uploaded.

Variable Name	Description	Units
TC-grain-wt	Total crop-grain weight	g/plant
TC-grain-wt-ha	Total crop-grain weight/hectare	kg/ha
TC-stover-wt	Total crop-stover weight	g/plant
TC-tot-biom	Total crop-total biomass	g/plant
TC-stover-wt-ha	Total crop-stover weight/hectare	kg/ha
TC-tot-biom-ha	Total crop-total biomass/hectare	kg/ha
TC-la	Total crop-leaf area	cm ²
TC-density	Total crop-density	plants/m ²
TC-lai	Total crop-leaf area index	m ² /m ²
TC-leaf-biom	Total crop-leaf biomass	g/plant
TC-stem-biom	Total crop-stem biomass	g/plant
TC-leaf-biom-ha	Total crop-leaf biomass/hectare	kg/ha
TC-stem-biom-ha	Total crop-stem biomass/hectare	kg/ha
TC-pan-wt	Total crop-panicle weight	g/plant
TC-pan-wt-ha	Total crop-panicle weight/hectare	Kg/ha

Reference Datasets

Please use recently published datasets for reference while preparing metadata and data:

Data Type	Reference Link
Genotypic	http://dataverse.icrisat.org/dataverse/genotypic
Phenotypic	http://dataverse.icrisat.org/dataverse/phenotypic
Social Science	http://dataverse.icrisat.org/dataverse/socialscience
Soil & Weather	http://dataverse.icrisat.org/dataverse/soilandweather
Spatial	http://dataverse.icrisat.org/dataverse/spatial