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WheatIS EWG updates

Michael Alaux

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WheatIS EWG updates



New chair

- ❑ Thanks to Taner Sen, who stays as co-chair
- ❑ Thanks to Hadi Quesneville
- ❑ Michael Alaux: chair since April 2023
 - ❑ Head of the Plant bioinformatics facility at INRAE-URGI
 - ❑ Wheat projects and consortium:
IWGSC, BreedWheat, Whealbi, AGENT

COVID lockdowns

- ❑ Less coordination activities
 - ❑ No in person-meeting
 - ❑ Only few virtual meetings
- Meetings start again now
 - ❑ WheatIS EWG virtual meeting 13/10/2022
 - ❑ Planning a WheatIS annual assembly at PAG
 - ❑ Friday 13/01/2023 10AM-12PM
 - ❑ You are welcome !

COVID lockdowns

□ Communication activities

□ Article Sen et al.

<https://f1000research.com/articles/9-536>

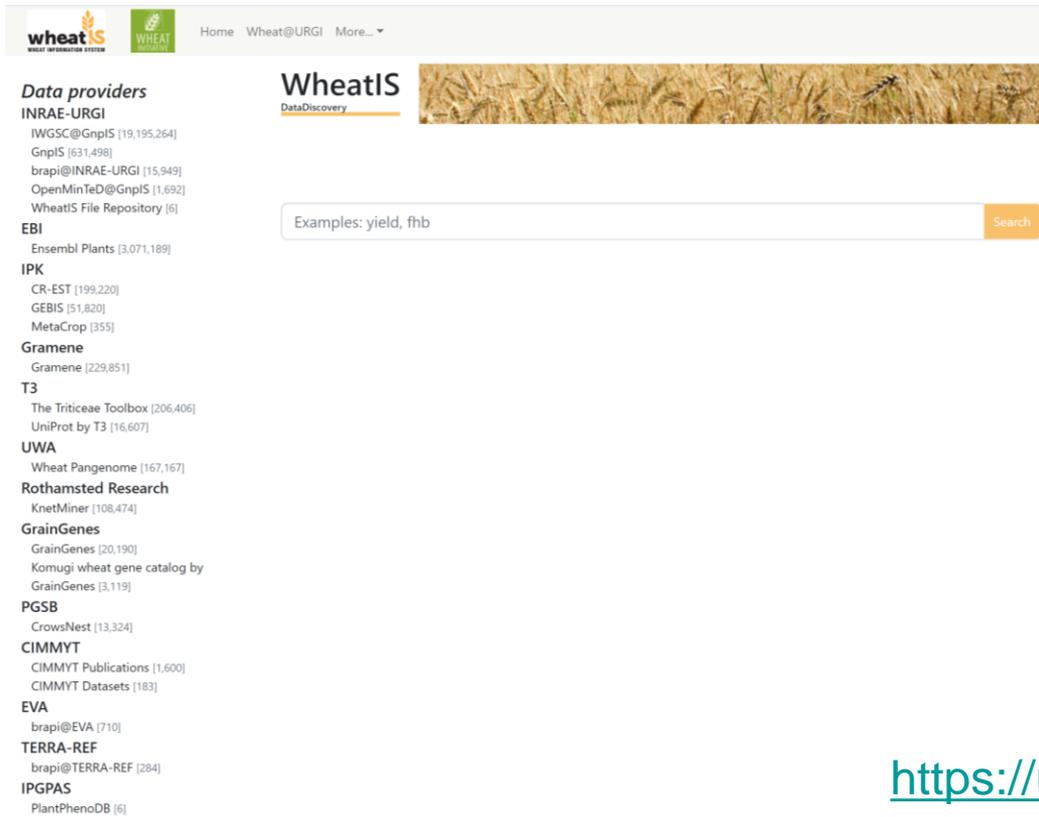
□ Logo design

The screenshot shows the F1000Research website interface. The article title is "Building a successful international research community through data sharing: The case of the Wheat Information System (WheatIS) [version 1; peer review: 2 approved, 1 approved with reservations]". The authors listed are Taner Z. Sen, Mario Caccamo, David Edwards, and Hadi Quesneville. The article has 1231 views and 107 downloads. A sidebar on the right shows the peer review status: "Open Peer Review" with a "Reviewer Status" of three green checkmarks. Below that, "Reviewer Reports" lists three invited reviewers: Runxuan Zhang (James Hutton Institute, UK), Stavros Makrodimitis (Delft University of Technology, The Netherlands), and Nevin Gerek Ince (AVEVA, USA). The article is also noted as being included in the Agriculture, Food and Nutrition gateway.



COVID lockdowns

- Bioinformatics development activities
 - WheatIS data discovery tool
 - New version of the tool



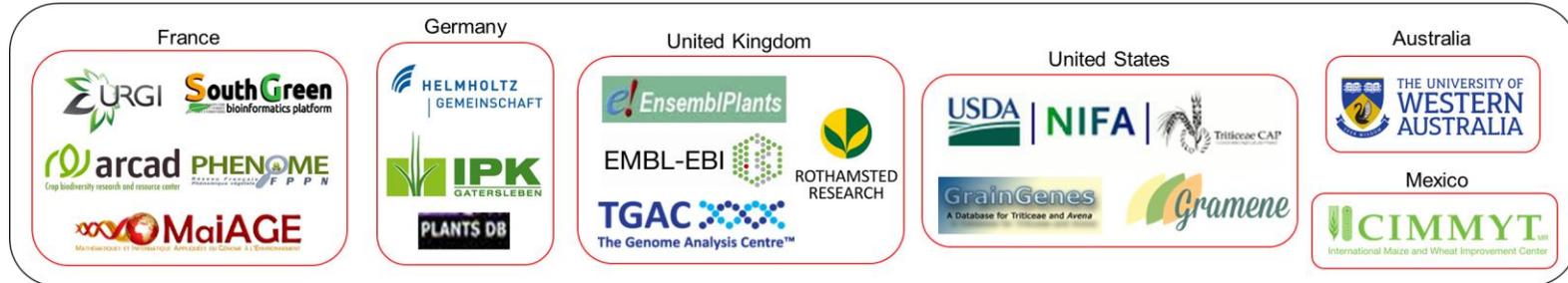
The screenshot shows the WheatIS DataDiscovery website. The header includes the WheatIS logo and navigation links for Home, Wheat@URGI, and More... A search bar is present with the text "Examples: yield, fhb" and a "Search" button. The main content area is titled "Data providers" and lists various data sources with their respective counts:

- Data providers**
- INRAE-URGI**
 - IWGSC@GnplS [19,195,264]
 - GnplS [631,498]
 - brapi@INRAE-URGI [15,949]
 - OpenMinTeD@GnplS [1,692]
 - WheatIS File Repository [6]
- EBI**
 - Ensembl Plants [3,071,189]
- IPK**
 - CR-EST [199,220]
 - GEBIS [51,820]
 - MetaCrop [355]
- Gramene**
 - Gramene [229,851]
- T3**
 - The Triticeae Toolbox [206,406]
 - UniProt by T3 [16,607]
- UWA**
 - Wheat Pangenome [167,167]
- Rothamsted Research**
 - KnetMiner [108,474]
- GrainGenes**
 - GrainGenes [20,190]
 - Komugi wheat gene catalog by GrainGenes [3,119]
- PGSB**
 - CrowsNest [13,324]
- CIMMYT**
 - CIMMYT Publications [1,600]
 - CIMMYT Datasets [183]
- EVA**
 - brapi@EVA [710]
- TERRA-REF**
 - brapi@TERRA-REF [284]
- IPGPAS**
 - PlantPhenoDB [6]

<https://urgi.versailles.inrae.fr/wheatis/>

WheatIS data discovery

International Network



INRAE-URGI

IWGSC@GnpIS [19 195 264]
GnpIS [631 498]
brapi@INRAE-URGI [15 949]
OpenMinTeD@GnpIS [1 692]
WheatIS File Repository [6]

EBI

Ensembl Plants [3 071 189]

IPK

CR-EST [199 220]
GEBIS [51 820]
MetaCrop [355]

Gramene

Gramene [229 851]

T3

The Triticeae Toolbox [206 406]
UniProt by T3 [16 607]

UWA

Wheat Pangenome [167 167]

Rothamsted Research

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GrainGenes

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WheatIS data discovery



Home Wheat@URGI More... ▾

fhb

Search

Species (13)

Filter on Species...

Data type

- Bibliography [48]
- Phenotyping Experiment [32]
- Genetic map [6]
- Germplasm [4]
- Qtl [4]
- Gene [3]
- Phenotyping study [1]
- Physical map [1]
- QTL [1]

Ontology annotation (22)

Filter on Ontology annotation...

Expand search ?

Database

- OpenMinTeD@GnpIS [44]
- The Triticeae Toolbox [36]
- GrainGenes [11]
- CIMMYT Publications [4]
- Komugi wheat gene catalog by GrainGenes [3]
- GnpIS [1]
- PlantPhenoDB [1]

Results 1 to 20 of 100

[10.3389/fpls.2019.01007](#) - OpenMinTeD@GnpIS

Bibliography **Triticum**

Genetic Mapping and Prediction Analysis of **FHB** Resistance in a Hard Red Spring Wheat Breeding Population. 2019 Genetic Mapping and Prediction Analysis of **FHB** Resistance in a Hard Red Spring Wheat Breeding Population Fusarium head blight (**FHB**) is one of the

[10.1371/journal.pone.0057500](#) - OpenMinTeD@GnpIS

Bibliography **Triticum** **Triticum aestivum**

Whole Genome Association Mapping of Fusarium Head Blight Resistance in European Winter Wheat (*Triticum aestivum* L.). 2013 Whole Genome Association Mapping o [...] valuated for resistance to Fusarium head blight (**FHB**) caused by *Fusarium graminearum* and *Fusarium cu*

[10.3389/fpls.2018.00573](#) - OpenMinTeD@GnpIS

Bibliography **Triticum**

Genetic Analysis of Fusarium Head Blight Resistance in CIMMYT Bread Wheat Line C615 Using Traditional and Conditional QTL Mapping. 2018 Genetic Analysis of [...] nd Conditional QTL Mapping Fusarium head blight (**FHB**) is a destructive wheat disease present through

[KS031027-FHB-8](#) - The Triticeae Toolbox

Germplasm **Triticum aestivum**

KS031027-FHB-8 Property Growth habit=Winter, Species=aestivum

[10.1007/s00122-019-03362-9](#) - OpenMinTeD@GnpIS

Bibliography **Triticum**

Genetics for low correlation between Fusarium head blight disease and deoxynivalenol (DON) content in a bread wheat mapping population. 2019 Genetics for lo [...] owing minor and the latter showing no effects on **FHB** resistance. Abstract Deoxynivalenol (DON) contami

[UNLFHB_NH_2020](#) - The Triticeae Toolbox

Phenotyping Experiment **Triticum**

UNLFHB_NH_2020 **FHB**

[10883/18889](#) - CIMMYT Publications

<https://urgi.versailles.inrae.fr/wheatis/>



WheatIS data discovery



Home Wheat@URGI

More... ▾

- About
- Join us
- Terms of use
- Help
- News/Perspectives

How to join the wheatIS for the Plant federations of searchable data?

If you want your information system to be referenced, you should provide a [JSON](#) file with metadata only. The metadata format must follow the indications below and we invite you to [contact us](#) as soon as possible so that we can provide the best way to go ahead.

Note that since the tool makes a backlink to your information system, we need a URL allowing researchers to get detailed information about the indexed entry directly in your information system.

Overview of the metadata associated to each searchable entry/document

- a short *name* identifying uniquely the entry, ie. [BTH_Le_MouIon_2000_SetA](#)
- an *url* linking back to the entry in your own web application, ie. <https://urgi.versailles.inrae.fr/ephephesis/ephephesis/viewer.do#trialCard/trialId=56>
- a *description*, of the entry that contains all the relevant keywords allowing to find your entry. All the terms of this field are used by the search tool to allow users to find entries
- an *entryType* describing the type of the entry, that could be any of the terms listed in the dedicated section below
- a *species* field, containing the species related to the entry (zero, one or several, but it is highly recommended to provide at least one)
- a *node*, the name of your laboratory/institute, it should be the same for all the entities you manage
- a *databaseName*, the name of the database from which the entry has been extracted. It can differ from one entry to another if you handle several databases

Detailed specifications for the metadata fields

name

I

The value of the *name* field must be unique in your own dataset and should be clear enough to help scientists to identify at the first glance this entry among the other.

Status	Cardinality	Constraints
Mandatory	1	Unique

<https://urgi.versailles.inrae.fr/wheatis/>

Plans for 2023 (challenges and help)

- ❑ WheatIS data discovery development planned
 - ❑ Challenge: few PM without dedicated hiring
 - ❑ Help: support to institutional boards of direction
- ❑ Perform some videos
 - ❑ Challenge: difficult to have a professional quality
 - ❑ Help: communication people from the WI or budget ?
- ❑ Article on the WheatIS data discovery tool to write
 - ❑ Challenge: little time available

Plans for 2023 (challenges and help)

- ❑ Other subjects that will be discussed during the annual assembly at PAG:
 - ❑ Website updates
 - ❑ Perhaps help needed
 - ❑ Future of the files repository
 - ❑ Is there a need from other WI EWG ?
 - ❑ Standards and nomenclature follow-up
 - ❑ Perhaps financial help for meetings

Plans for 2023 (challenges and help)

- ❑ For underrepresented countries
 - ❑ New EWG members
 - ❑ New data sources to index in the WheatIS data discovery tool

Topics that should be addressed in partnership with other EWGs

- ❑ What are the needs of other EWGs in terms of data ?
 - ❑ Data discovery: new sources to add ?
 - ❑ Files repository to store data ?
 - ❑ Guidance about data standards, tools to analyse their data, etc. ?

Acknowledgements

WheatIS Expert Working Group



Mr. Michael Alaux

Deputy leader of "Information System and data integration" team at URGI
INRAE
France
Email: michael.alaux@inrae.fr



Dr. Ruth Bastow

Innovation Director
Crop Health and Protection Limited (CHAP)
UK
Email: rubi@crophealthcouncil.org



Dr. Ute Baumann

Bioinformatics Group Leader
Australian Centre for Plant Functional Genomics
Australia
Email: ute.baumann@qut.edu.au



Dr. Vijai Bhadauria

Research Scientist
Agriculture and Agri-Food Canada
Canada
Email: vijai.bhadauria@canada.ca



Dr. Mario Caccamo

Head of Crop Bioinformatics
NIAB
UK
Email: mario.caccamo@niab.com



Dr. Laurel Cooper

Scientific Curator and Project Coordinator, Plant Ontology and oROP projects
Oregon State University
USA
Email: cooperl@science.oregonstate.edu



Dr. Robert Davey

Data Infrastructure & Algorithms Group Leader
Earlham Institute (EI)
UK
Email: robert.davey@earlham.ac.uk



Dr. Kate Dreher

Gemtoplasm Data Coordinator
CIMMYT
Mexico
Email: k.dreher@cgiar.org



Prof. Jorge Dubcovsky

Professor
UCO and HHMI
USA
Email: jubcovsky@ucdavis.edu



Dr. Sarah Dyer

Ensembl Plants Project Leader
EMBL-EBI
UK
Email: sd141@ebi.ac.uk



Prof. David Edwards

School of Plant Biology
University of Western Australia
Australia
Email: Dave.Edwards@uwa.edu.au



Dr. Paul Kersey

Deputy Director of Science (Bioinformatics and Genomics)
Royal Botanic Gardens, Kew
UK
Email: p.kersey@kew.org



Prof. Gerard Lazo

Geneticist, GrainGenes Curator
USDA ARS
USA
Email: gerard.lazo@ars.usda.gov



Prof. David Marshall

Reader
SRUC, Scotland's Rural College
UK
Email: David.Marshall@scot.nps.ac.uk



Dr. Klaus Mayer

Research Director
MIPS, Helmholtz Center Munich
Germany
Email: k.mayer@helmholtz-munich.de



Dr. Amidou N'Diaye

Professional Research Associate
University of Saskatchewan, Crop Development Centre
Canada
Email: Amidou.Ndiaye@usask.ca



Dr. Hadi Quesneville

Head of research unit in Genomics-Info (URGI)
INRAE
France
Email: hadi.quesneville@inrae.fr



Prof. Christopher Rawlings

Head of Computational and Systems Biology
Rothamsted Research
UK
Email: chris.rawlings@rothamsted.ac.uk



Dr. Mark Sawkins

Assistant Director
IWYP
USA
Email: m.sawkins@iwrp.org



Dr. Taner Sen

GrainGenes, Lead Scientist & Coll. Assit. Prof.
USCA-ARS & Iowa State University
USA
Email: taner.sen@ars.usda.gov



Prof. Doreen Ware

Research Scientist & Adj. Associate Professor
USDA ARS & Cold Spring Harbor Laboratory
USA
Email: ware@csih.edu

Chair: Michael Alaux

Co-chairs: Taner Sen, Mario Caccamo, Dave Edwards