

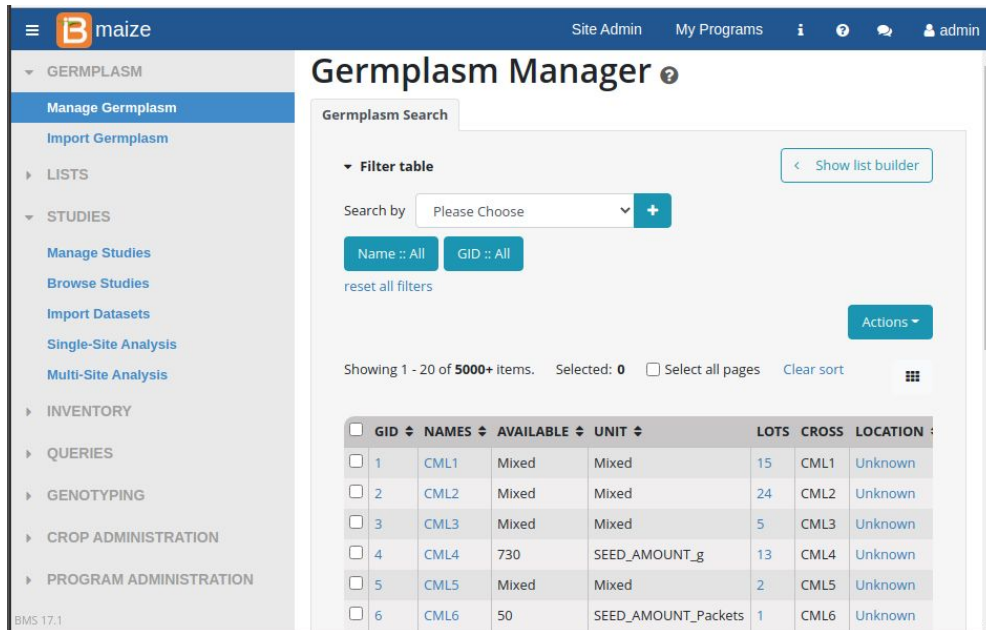


Integrated Breeding Platform (IBP)

BMS - BREEDING MANAGEMENT SYSTEM

BMS

- Multi-module system
- Multi-crop
- Multi-program
- User management
- Phenotyping studies management
- Germplasm management
- Inventory management



The screenshot displays the 'Germplasm Manager' interface within the BMS system. The top navigation bar includes 'maize' branding and user roles like 'Site Admin' and 'My Programs'. A left sidebar lists various modules, with 'Germplasm' and its sub-items ('Manage Germplasm', 'Import Germplasm') highlighted. The main content area features a 'Germplasm Search' section with a 'Filter table' dropdown, a search input field, and buttons for 'Name :: All' and 'GID :: All'. Below this, a table lists germplasm entries with columns for GID, NAMES, AVAILABLE, UNIT, LOTS, CROSS, and LOCATION. The table shows 6 items, with the first three having 'Mixed' availability and the last three having specific seed amounts. An 'Actions' button is visible on the right side of the table.

Germplasm Manager

Germplasm Search

Filter table

Search by: Please Choose

Name :: All GID :: All

reset all filters

Showing 1 - 20 of 5000+ items. Selected: 0 ☐ Select all pages Clear sort

GID	NAMES	AVAILABLE	UNIT	LOTS	CROSS	LOCATION
1	CML1	Mixed	Mixed	15	CML1	Unknown
2	CML2	Mixed	Mixed	24	CML2	Unknown
3	CML3	Mixed	Mixed	5	CML3	Unknown
4	CML4	730	SEED_AMOUNT_g	13	CML4	Unknown
5	CML5	Mixed	Mixed	2	CML5	Unknown
6	CML6	50	SEED_AMOUNT_Packets	1	CML6	Unknown

What's new

- New inventory manager
- KSU Fieldbook data capture interoperability
- Study Comparison BrAPP integration
- New germplasm search capabilities

TECH STACK

Backend

- Java / Spring / Hibernate
- MySQL

Frontend

- AngularJs / Angular 2 / 6
- Thymeleaf
- Vaadin (legacy)

BMSAPI

https://app.swaggerhub.com/apis/ibp_bms/BMSAPI/17.2

- All new modules interact directly with BMSAPI
- BrAPI for external interaction

The screenshot displays the SwaggerHub interface for the BMSAPI 17.2. The top navigation bar includes links for Apps, Bookmarks, Development, Infra, Meetings, Gestion, Servers, Papers, Triage, COBli, Cocina, Pluralsight, and Compras cocina. The main header shows the API name 'BMSAPI' and version '17.2'. On the left, a sidebar lists API resources: 'experimental-design-type-resource', 'inventory-unit-resource', and 'germplasm-list-resource-group'. The central area shows the OpenAPI specification in JSON format, detailing the API's metadata and the structure of its resources. The right sidebar contains a 'Welcome!' message, the base URL 'www.bms-uat-test.net', and a list of links for service documentation and support.

```
1 swagger: "1.2.0"
2 info:
3   description: Try out the Breeding Management System API methods listed below!
4   version: "17.2"
5   title: Welcome!
6   termsOfService: "http://bit.ly/KQXlnL"
7   contact:
8     name: BMS Support
9     email: support@integratedbreeding.net
10  license:
11    name: GNU General Public License
12    url: "http://bit.ly/8Zv0M"
13  host: www.bms-uat-test.net
14  basePath: /bmsapi
15  tags:
16    - name: experimental-design-type-resource
17      description: Experimental Design Type Resource
18    - name: inventory-unit-resource
19      description: Inventory Unit Resource
20    - name: germplasm-list-resource-group
21      description: Germplasm List Resource Group
22    - name: study-resource
23      description: Study Resource
24    - name: variable-resource-brapt
25      description: Variable Resource Brapt
26    - name: preset-resource
27      description: Preset Resource
28    - name: basic-error-controller
29      description: Basic Error Controller
30    - name: variable-type-resource
31      description: Variable Type Resource
32    - name: account-resource
33      description: Account Resource
34    - name: class-resource
35      description: Class Resource
36    - name: germplasm-resource
37      description: Germplasm Resource
38    - name: user-resource
39      description: User Resource
40    - name: trial-resource-brapt
```

Welcome!
17.2
[Base URL: www.bms-uat-test.net/
Try out the Breeding Management Syst
Terms of service
Contact BMS Support
GNU General Public License

experimental-design-t
GET /crops/{crop}/e

BMS - BrAPI

- Interact / provide data for other Systems
 - BrAPI-R
- Support a large number of v1 calls
- New v1 calls:
 - `/search/germplasm`
 - `/search/germplasm/{id}`

BMS - BrAPI

■ New v2 calls:

- GET v2/seedlots
- GET v2/transactions
- GET /trials
- GET /studies
- GET /germplasm
- GET /breedingmethods
- GET /locations
- GET /programs
- GET /germplasm
- POST /germplasm
- PUT /germplasm (In progress)

■ BrAPPs

- Graphical Filtering tool
- Fieldmap (new): editing geo-coordinates (geoJSON)
- Study Comparison tool

BMS - BrAPI

MAIZE 17.1

GERMPLASM

Manage Germplasm

Import Germplasm

LISTS

STUDIES

INVENTORY

QUERIES

Graphical Queries

Head to Head Query

Multi-trait Query

GENOTYPING

CROP ADMINISTRATION

PROGRAM ADMINISTRATION

Query type

Graphical Filtering

Load

Export

WHERE

Show 10 entries

Search:

TrialInstance	Study	Name	observationUnitDbId	Accession	EntryNumber	GiD	Location	Aflatox_M_ppb	EndoLys_M_pct
1	Mar9 Trial_1	PLOT1	ZGQAPJvFnQM5a	ACCNO14	18	364728	Africa Rice Centre	16	79
1	Mar9 Trial_1	PLOT2	ZGQAPzOqPvZPH	ACCNO5	3	364719	Africa Rice Centre	37	88
1	Mar9 Trial_1	PLOT3	ZGQAP3eBSX2zM	ACCNO9	12	364723	Africa Rice Centre	29	19
1	Mar9 Trial_1	PLOT4	ZGQAPrj6clrrH	ACCNO10	7	364724	Africa Rice Centre	77	54
1	Mar9 Trial_1	PLOT5	ZGQAPxrwssAn6	ACCNO11	6	364725	Africa Rice Centre	73	14
1	Mar9 Trial_1	PLOT6	ZGQAPIW06FkFi	ACCNO1	5	364715	Africa Rice Centre	66	11
1	Mar9 Trial_1	PLOT7	ZGQAPwaihUCwm	ACCNO20	16	364734	Africa Rice Centre	65	36
1	Mar9 Trial_1	PLOT8	ZGQAPHnxVI7j1	ACCNO13	8	364727	Africa Rice Centre	17	92
1	Mar9 Trial_1	PLOT9	ZGQAP3IT7DQk3	ACCNO4	4	364718	Africa Rice Centre	44	20
1	Mar9 Trial_1	PLOT10	ZGQAPJW02Lv8E	ACCNO7	10	364721	Africa Rice Centre	55	33

Showing 1 to 10 of 80 entries


Previous12345...8Next

Site Admin

My Programs

i

admin



BMS 17.2

BMS - BrAPI

MAIZE 17.1

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admin

GERMPLASM

Manage Germplasm

Import Germplasm

LISTS

STUDIES

INVENTORY

QUERIES

Graphical Queries

Head to Head Query

Multi-trait Query

GENOTYPING

CROP ADMINISTRATION

PROGRAM ADMINISTRATION

Query type

Study Comparison

Load

Aflatox_M_ppb

Compare Variable

Mar9 Trial_2

BMS - BrAPI

maize

GERMPLASM

Manage Germplasm

Import Germplasm

LISTS

STUDIES

Manage Studies

Browse Studies

Import Datasets

Single-Site Analysis

Multi-Site Analysis

INVENTORY

QUERIES

GENOTYPING

CROP ADMINISTRATION

PROGRAM ADMINISTRATION

MANAGE STUDIES

fieldmap-2

BASIC DETAILS

Settings

Germplasm & Checks

Treatment F

STUDY SETTINGS

Click Add to begin selecting items to record in this se

Site Admin

My Programs

admin

Return to Manage Studies

Actions

Georeference editor

BETA


Click on the area to move and resize. Right-click on the individual plot area to edit its size.

Save

+

-

Q



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BMS 17.1

BrAPI Virtual Hackathon

- New BrAPP: Synchronize Germplasm across BMS (or any other BrAPI-compliant) instances
- Discuss data synchronization