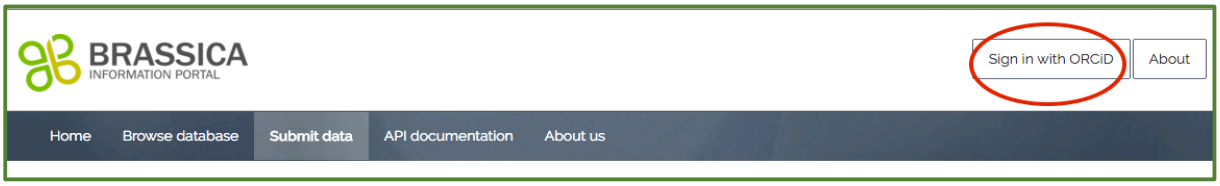
BIP-Wizard upload guide

This document gives an overview on the order of events necessary to submit information about your trial. This can be done using the wizard.
It further names all fields required for the submission of a new plant trial.

BIP user account

In order to submit content to the Brassica Information Portal, you need to sign in with your ORCiD account. If you don't have an ORCiD account yet, you will be referred to their services from our Sign in:

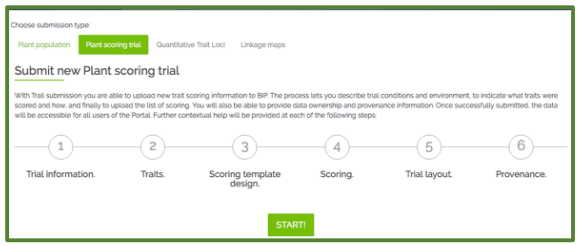


Your data submission to the Brassica Information Portal is split into two different submissions and need to be executed in the following order:

1) Population Submission
2) Trial Submission.

The Population Submission documentation can be found in context with population submissions, here: https://bip.earlham.ac.uk/submissions/new

Trial submission using the wizard



After submitting your experimental plant population, you can submit the trait scoring data (your measured traits) of your trial. This is a 6-step process, during which you also submit metadata that describes your trial. Go to bip.earlham.ac.uk and click on submit data. Choose "Plant scoring trial" and click "START!".
The wizard walks you through all the steps, offering compulsory and optional fields to be filled out. In the table below you see a list of all fields during the submission process. Those fields marked with * are compulsory for the submission.

Step 1 asks you for general trial information. When coming up with a Plant trial name, try to follow the nomenclature in the table to the right.
An already existing Trial name is called U.Nottm_2016_RIPRleafminerals_REMLmeans. In this step you also link your previously submitted plant_population to your plant_trial, by selecting your experimental

Step 1 - Trial information	
Plant trial name*	<institute id>_<YYYY>_<trialSubject>_<raw/processed
Project name*	
Experimental plant population*	Your previously submitted plant population
Trial year*	
Trial description*	
select: data status: raw vs. processed (analysed) data	
Institute*	
Terrain	
Soil type	

plant_population from a drop-down menu.

In step 2 you define the traits which you have investigated during your trial. If you have measured traits with the same method as are already registered in the database, you start typing the trait's name in the box beneath "trait descriptor list". If the trait does not yet exist, you can define a new trait by clicking "add new trait descriptor". When adding new traits, some fields are compulsory, following the Crop Ontology model of <Trait><Method><Scale>. Other information can be added in case it is available.

In step 3 you specify what information you will upload together with your trait scores. Here, you specify whether you give information on the plant_lines or plant_varieties associated with your germplasm.

In case you are submitting raw data, you will be asked to add information on the trial design in case you want to submit raw data. For examples, please look in step 3-scoring template design in the table on the right. Also, you can specify the number of technical replicates, if present. Keep it at "1", if no technical replicates are present.

In step 4 you will be able to download the template (see figure 1) you use for the submission of your trait data. It has been created according to the choices you have made so far in your submission (e.g. traits to be submitted, see Fig 2). If you see that the headers don't correspond to the data you want to submit, navigate back to previous submission steps and amend them accordingly. An altered template can then be downloaded at this step.

Please **be careful when pasting your trait scores** beneath the correct headers, as they may not appear in the order they are recorded in your source spreadsheet.

Step 5 is optional, where you can submit an image of the trial layout, in case you

Statistical factors

Country*

Place name*

Trial location site name

Latitude

Longitude

Altitude

Step 2 -Traits

Select trait descriptors*

When adding new trait descriptor:

Descriptor name*	Materials	Precautions
Trait category*	Instrumentation required	Scoring method
Units of measurements*	Calibrated against	Possible interactions
Score type	Likely ambiguities	Additional annotations
Where to score	Controls	

Step 3 - Scoring template design

Select genetic material origin

plant lines or plant varieties

select design factors:block,plot,rep etc (raw data)

specify technical replicate numbers (raw data)

Step 4 - Scoring Template Submission

download .csv file template

add trait scores to corresponding header

add plant scoring unit (=sample_id)*, plant accession*, originating organisation*,

Plant line or variety*

upload .csv file*

Step 5 Submit Trial Layout

Submit image of trial layout

submit raw data. Such an image would be helpful to interpret patterns in the raw data- in the workshop we don't have such information.

Step 6 asks you to fill in some information about the provenance of the data you just submitted. You can choose to put an embargo on the data and wait with the submission until for example your paper is ready to be published.

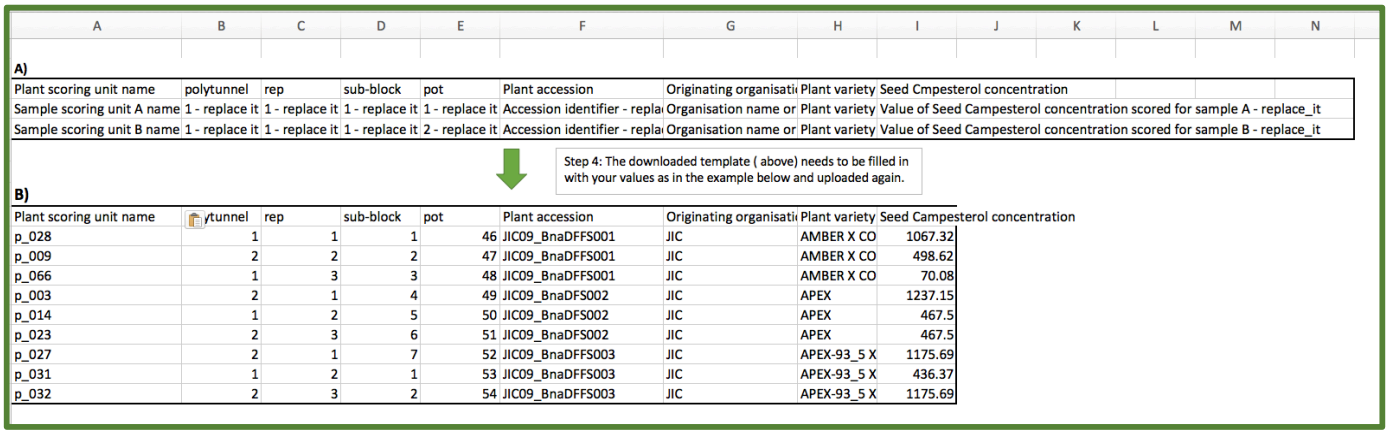
Step 6- Provenance

Data owned by

Data provenance

Comments

Visibility-public/private*



A)

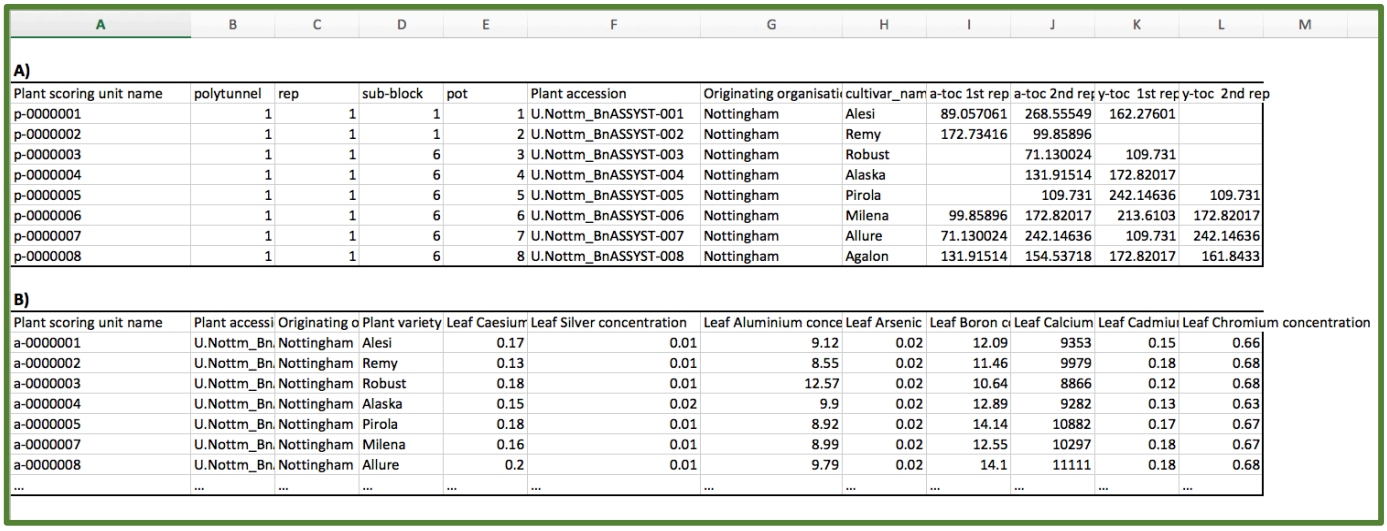
Plant scoring unit name	polytunnel	rep	sub-block	pot	Plant accession	Originating organisati	Plant variety	Seed Cmpesterol concentration
Sample scoring unit A name	1 - replace it	1 - replace it	1 - replace it	1 - replace it	Accession identifier - repla	Organisation name or	Plant variety	Value of Seed Campesterol concentration scored for sample A - replace_it
Sample scoring unit B name	1 - replace it	1 - replace it	1 - replace it	2 - replace it	Accession identifier - repla	Organisation name or	Plant variety	Value of Seed Campesterol concentration scored for sample B - replace_it

Step 4: The downloaded template (above) needs to be filled in with your values as in the example below and uploaded again.

B)

Plant scoring unit name	ytunnel	rep	sub-block	pot	Plant accession	Originating organisati	Plant variety	Seed Campesterol concentration
p_028	1	1	1	46	JIC09_BnaDFFS001	JIC	AMBER X CO	1067.32
p_009	2	2	2	47	JIC09_BnaDFFS001	JIC	AMBER X CO	498.62
p_066	1	3	3	48	JIC09_BnaDFFS001	JIC	AMBER X CO	70.08
p_003	2	1	4	49	JIC09_BnaDFS002	JIC	APEX	1237.15
p_014	1	2	5	50	JIC09_BnaDFS002	JIC	APEX	467.5
p_023	2	3	6	51	JIC09_BnaDFS002	JIC	APEX	467.5
p_027	2	1	7	52	JIC09_BnaDFFS003	JIC	APEX-93_5 X	1175.69
p_031	1	2	1	53	JIC09_BnaDFFS003	JIC	APEX-93_5 X	436.37
p_032	2	3	2	54	JIC09_BnaDFFS003	JIC	APEX-93_5 X	1175.69

Figure 2 *Example trial submission template in step 4* ***A)*** *a user's constructed submission template based on the user's dataset. Prior to downloading this template, the user would have specified information about the dataset to be submitted, which has resulted in the final template.* ***B)*** *The filled in template previously seen in A). In all cases, fields like Plant scoring unit name (column A), Plant accession (column F), originating organization(column G) and Plant variety or Plant line (column H) are compulsory fields to be filled out.*



A)

Plant scoring unit name	polytunnel	rep	sub-block	pot	Plant accession	Originating organisati	cultivar_nam	a-toc 1st rep	a-toc 2nd rep	y-toc 1st rep	y-toc 2nd rep
p-0000001	1	1	1	1	U.Nottm_BnASSYST-001	Nottingham	Alesi	89.057061	268.55549	162.27601	
p-0000002	1	1	1	2	U.Nottm_BnASSYST-002	Nottingham	Remy	172.73416	99.85896		
p-0000003	1	1	6	3	U.Nottm_BnASSYST-003	Nottingham	Robust		71.130024	109.731	
p-0000004	1	1	6	4	U.Nottm_BnASSYST-004	Nottingham	Alaska		131.91514	172.82017	
p-0000005	1	1	6	5	U.Nottm_BnASSYST-005	Nottingham	Pirola		109.731	242.14636	109.731
p-0000006	1	1	6	6	U.Nottm_BnASSYST-006	Nottingham	Milena	99.85896	172.82017	213.6103	172.82017
p-0000007	1	1	6	7	U.Nottm_BnASSYST-007	Nottingham	Allure	71.130024	242.14636	109.731	242.14636
p-0000008	1	1	6	8	U.Nottm_BnASSYST-008	Nottingham	Agalon	131.91514	154.53718	172.82017	161.8433

B)

Plant scoring unit name	Plant accessi	Originating o	Plant variety	Leaf Caesium	Leaf Silver concentration	Leaf Aluminium conce	Leaf Arsenic	Leaf Boron c	Leaf Calcium	Leaf Cadmiu	Leaf Chromium concentration
a-0000001	U.Nottm_Bn	Nottingham	Alesi	0.17	0.01	9.12	0.02	12.09	9353	0.15	0.66
a-0000002	U.Nottm_Bn	Nottingham	Remy	0.13	0.01	8.55	0.02	11.46	9979	0.18	0.68
a-0000003	U.Nottm_Bn	Nottingham	Robust	0.18	0.01	12.57	0.02	10.64	8866	0.12	0.68
a-0000004	U.Nottm_Bn	Nottingham	Alaska	0.15	0.02	9.9	0.02	12.89	9282	0.13	0.63
a-0000005	U.Nottm_Bn	Nottingham	Pirola	0.18	0.01	8.92	0.02	14.14	10882	0.17	0.67
a-0000007	U.Nottm_Bn	Nottingham	Milena	0.16	0.01	8.99	0.02	12.55	10297	0.18	0.67
a-0000008	U.Nottm_Bn	Nottingham	Allure	0.2	0.01	9.79	0.02	14.1	11111	0.18	0.68
...	...	...	...	...	...	...	...	...	...	...	...

Figure 1 *Readily filled out submission templates, which would be uploaded to the BIP in Trial submission step 4. The user determines the final content of the trial submission template depending on the type of data submitted.* ***A)*** *A submission template enabling raw data submission was filled out with information on the trial design (columns B-E) as well as technical replicates (columns J, L)* ***B)*** *A submission template generated for processed data, where the trait measurements (columns E-L) are derived from statistical analysis.*