bits

Bio-Information & Trialing Services

BioAnalytics 2020
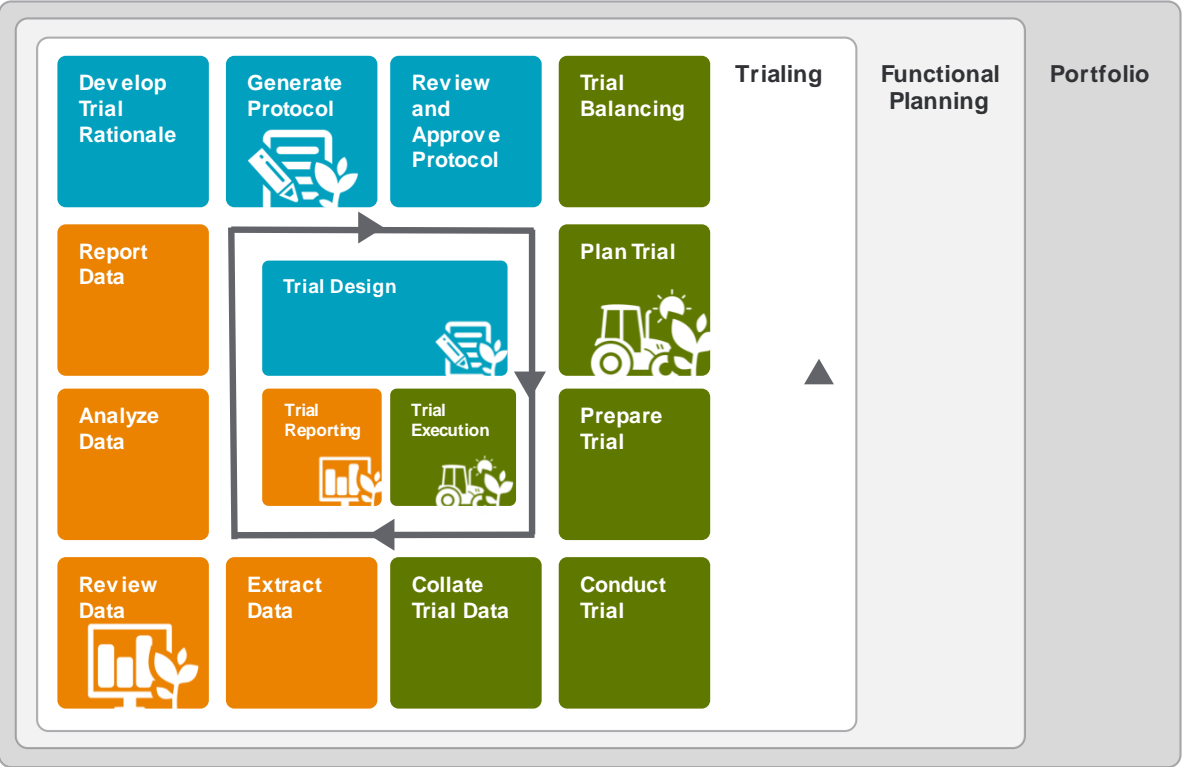## Quick Reference Guide

Biological Data Analytics Team:

represented by Craig Eckel and Monika Saini
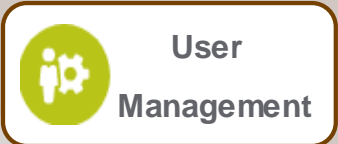
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End to End Process

An end-to-end trialing process that optimizes the way we plan, design, execute and report our biological trials

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Bio-Information
& Trialing Services

				Trialing	Functional Planning	Portfolio
Develop Trial Rationale	Generate Protocol	Review and Approve Protocol	Trial Balancing			
Report Data	Trial Design		Plan Trial			
Analyze Data	Trial Reporting	Trial Execution	Prepare Trial			
Review Data	Extract Data	Collate Trial Data	Conduct Trial			

New technology, systems and integrated tools will help deliver more effective and productive trials

BioPlan a BITS application

BioDesign a BITS application

BioBalance a BITS application

BioConnect a BITS application

ARM

BioAnalytics a BITS application

BioHome

User Management

SLOT (Std. List of Terms)

SmartMart /Data Lake

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BioAnalytics Team – Sept. 2020

| The Team	What's New	What's in the *Works*
Product Team ➢ Representatives from all regions and Global ➢ Monika Saini, Tatiana Lust, and Craig Eckel represent NA ➢ RDIS and ITWorx manage development ➢ Work is coordinated with other BITS product teams	More Intuitive ➢ Screen redesign ➢ * for wildcard ➢ Ability to reuse query More Powerful ➢ More Reports ➢ Attachments ➢ Improved Datasets Quicker ➢ Delivery by e-mail ➢ Larger Datasets	▪ Reports based on GDB and GDB2 data ▪ NA Regulatory Report ▪ Complex Query ▪ Less time cleaning data ▪ Support for Digital Call to Arms

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Home Page : 5 main sections :
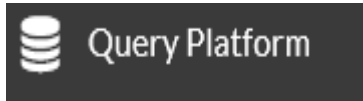
Query Platform → Select data for datasets, analyses, and reports
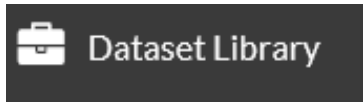
Dataset Library → View, download and standardize Datasets (Raw data files / Full & Optimized) to summarize and analyze outside of BioAnalytics
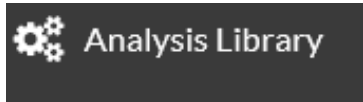
Analysis Library → View detailed statistical analysis

On-Demand Report Library → Open and/or download reports (Trial Status, Single trial (Word and Excel), Single Protocol ... *etc.*)

Report Builder → Specify report format, select analysis and output options, and select delivery options.

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Query Platform

Goal: "To retrieve data for analyses and reports"

1. Select <u>Query Platform</u> and select a criterion.
2. Type or paste a value to search for (use * as a wildcard, multiple * can be used).
3. Use the arrow buttons to move items in and out of the right-hand box.
4. Click Add to Query
5. Repeat steps to build a multi-step query
6. If needed, use trash to undo the last step
7. Buttons at the bottom determine how the selected trials are used.
8. Saved queries can be a timesaver
9. In Create and Save Dataset you can use default or enter a more meaningful name
10. Checkboxes to control what is included with the dataset (GeoTroll adds environmental data)
11. As a final step, click on the Save button or start Label Standardization to start creation of the dataset.

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Query Platform – Tips and Tricks

1. Either **"*" or "%"** can be used as wild card

2. Search string is **not case sensitive**

3. Using "wild card" in search window displays a list of all the values currently contained in the data selection on the left-side box

4. The right-side box shows the criteria that will be used for the query

5. You can select one or more values and move them left or right using the > (single arrow) button

6. Clicking on >> (double arrows) will move all available values left or right

7. When the right-side window shows the correct values, click **add to query** button to add your selection to filter

8. Except product search "*" can be used in the beginning, middle or end of search string, for e.g. *2020US will find all 2020 protocols from United States, *wheat* will find all different ways crop wheat has been recorded

9. The parameters can be entered in any order however, the product rate & Unit, method, placement and timing buttons only become active after product selection criteria has been set

10. To modify selection criteria already set use to trash icon under actions to remove filter steps one at a time and add in new criteria.

11. At any time it is possible for you to save the current parameters used in the filter. This enables you to run the filter again at later date, for e.g. when more data has been loaded to database. To save click **Save Query** button and enter a name for the filter.

12. The reset button removes all filter steps allowing you to start over.

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Dataset Library

> Click on the download arrow to download a copy of the excel dataset

> Select option to download Full or optimized dataset

> Optimized dataset: choose whether to combine Trt information with CP_Plot_Data sheet or keep in separate sheet

	⬍Name	⬍Linked to report?	⬍Creation Date	Actions
☐	USNL0F1142014(+)	No	08-Sep-2020 03:45 PM	
☐	Pydi_Wheat_Puccinia_US_CA_Sep_08	No	08-Sep-2020 11:54 AM	
☐	FSF159B3-2015CA(+)	No	08-Sep-2020 10:59 AM	
☐	USSF0F1072020	No	02-Sep-2020 11:13 AM	
☐	Orondis_Label_Update	No	31-Aug-2020 08:50 AM	

Dataset Download Format

Download Dataset in:

☐ Full Format
☑ Optimized Format
    ☑ Combine Plot Data & Treatment Details

Ok   Cancel

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Report Builder

1. After querying for your data, click on report builder to launch the report builder screen
2. Choose analysis options
3. Choose a report template from dropdown list, Components in the template are shown on the right side of screen
4. Click on Save to start creating the report. Alternately, Open can be used to create the report on-screen
5. In general, use checkboxes to select method of delivery. Leaving them blank creates the report on-screen.

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Comments Report

1. Each protocol is listed at the beginning of the report with its trials. Clicking on the trial ID will move focus to that trial.

2. Comments, including Conclusions, are provided for each trial.

COMMENTS REPORT

FMG100A3-2020US
USWC0F0042020
FMG360A3-2020US
USSI0F0042020
FMG420A3-2020US
USSJ0F1082020
FMG731A3-2020US
USVX0F1022020
FMP200A3-2020US
USVX0F1082020
USWG0F2002020
FOP685A3-2020US
USWC0F0072020
FOP691A3-2020US
USWF0F9522020
FOP760A3-2020US
USSF0F0092020
USVX0F1032020
FOP960A3-2020US
USWG0F9602020
IMG100A3-2020US
USSC0I1162020
USSD0I2012020
USSI0I0412020

| Project: | **FMG731A3-2020US** | Trial: | **USVX0F1022020** |

NOTES

Date	Text
18-Mar-2020	Automatically added by ARM: Trial Status updated to 'E' when Initiation Date entered.
18-Mar-2020	Automatically added by ARM: Trial Status updated to 'S' during trial creation.

CONCLUSIONS

Text

1. Determine if proposed rates of A22011B, A23156A, and A19649H, as soil-applied treatments at planting, have activity against *Stemphylium spp.* in spinach.

2. Determine if proposed rates of A23156A provide equal or better control of *Stemphylium spp.* in spinach, compared to a soil application of A22011B or A20093A.

3. Determine if proposed rates of A22011B, A23156A, and A19649H provide equal or better control of *Stemphylium spp.* in spinach, compared to a standard foliar program.

I direct seeded an infected Bloomsdale seed. The disease appeared as soon as the older leaves started showing symptoms of senescence. It was very aggressive. The disease symptoms began as blight spots that coalesced and killed entire leaves.

No statistical differences were detected between the treatments in the control of Stempylium sp. of spinach. The disease was very aggressive, and 7-day applications perhaps will not cut it. Also, it may be a good idea to start spraying as soon as the leaves are out of the ground.

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Trial Status Report (TSR)

1. Each trial is shown on a separate line
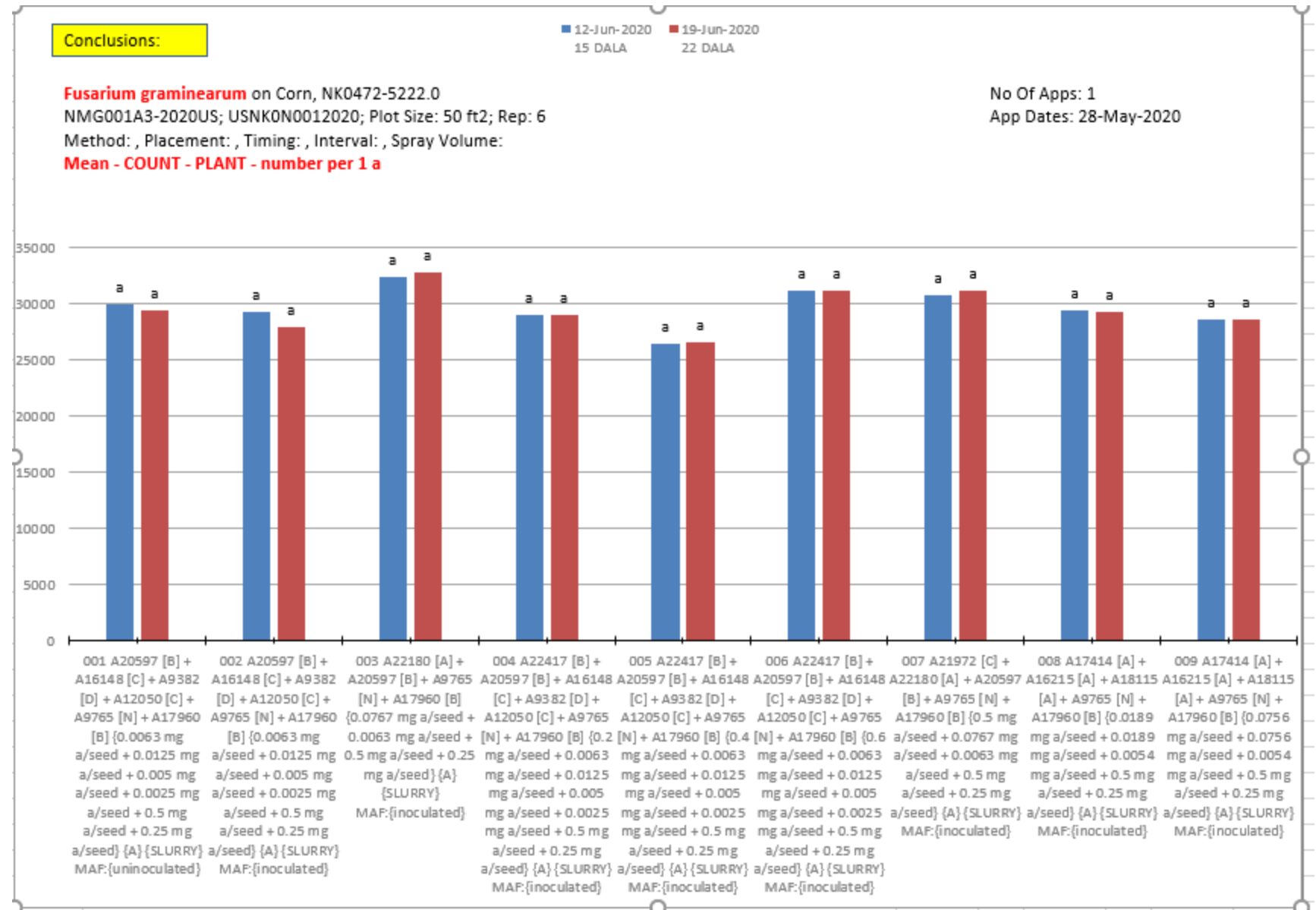2. An overview of sites, applications, products, crop and pest is provided.

Master Protocol	Derived Protocol ID	Master Protocol owner	Trial ID	Site Type	Trial Title	GEP	Guideline(s)	Field Scientist	Inhouse/Cooperat	Initiation Date of trial	First Planting Date	First Application Date	Last Assessment Date
FMG100A3-2020US	FMG100A3-2020US	Katie Neufeld	USWC0F0042020	field	NMG-787: CP for the control of soil borne diseases in Cotton	No		Hugo Ramierz	IN-HOUSE TRIAL		12-May-20	12-May-20	23-Jun-20
FMG360A3-2020US	FMG360A3-2020US	Katie Neufeld	USSI0F0042020	field	NMG-787: CP for the control of diseases in peanut [Aspergillus]	No		Henry McLean	IN-HOUSE TRIAL	15-May-20	15-May-20	15-Jun-20	19-Jun-20
FMG420A3-2020US	FMG420A3-2020US	Katie Neufeld	USSJ0F1082020	transplant bed	NMG-787: CP for the control of diseases in sweet potato	No		Victor Mascarenhas	IN-HOUSE TRIAL	22-Jun-20	22-Jun-20	22-Jun-20	21-Jul-20
FMG731A3-2020US	FMG731A3-2020US	Katie Neufeld	USVX0F1022020	field	NMG-787: CP for the control of Stemphylium in spinach	No		Carmen Collazo-Gonzalez	IN-HOUSE TRIAL	27-Feb-20		02-Mar-20	24-Apr-20
FMP200A3-2020US	FMP200A3-2020US	Katie Neufeld	USVX0F1082020	field	Extend Revus for soil use on potato	No		Carmen Collazo-Gonzalez	IN-HOUSE TRIAL	21-Nov-19	21-Nov-19	21-Nov-19	19-May-20
FMP200A3-2020US	FMP200A3-2020US	Katie Neufeld	USWG0F2002020	field	Extend Revus for soil use on potato	No		Marty Schraer	IN-HOUSE TRIAL				27-May-20
FOP685A3-2020US	FOP685A3-2020US	Katie Neufeld	USWC0F0072020	orchard	Evaluate efficacy of OXTP+MFX and other products for Phytophthora control in Almond	No		Hugo Ramierz	IN-HOUSE TRIAL			10-Mar-20	24-Mar-20
FOP691A3-2020US	FOP691A3-2020US	Katie Neufeld	USWF0F9522020	research plot	Evaluate efficacy of OXTP + MFX and other products for Phytophthora in Raspberry	No		Jafe Weems	CONTRACTED TRIAL	09-Apr-20	08-May-13 ;	09-Apr-20	06-May-20
FOP760A3-2020US	FOP760A3-2020US	Katie Neufeld	USVX0F1032020	field	Evaluate OXTP products for downy mildew in cucurbits	No		Carmen Collazo-Gonzalez	IN-HOUSE TRIAL	25-Mar-20	18-Feb-20		
FOP760A3-2020US	FOP760A3-2020US	Katie Neufeld	USSF0F0092020	field	Evaluate OXTP products for downy mildew in cucurbits	No		Caroline Land	IN-HOUSE TRIAL	30-Mar-20	30-Mar-20	21-Apr-20	
FOP960A3-2020US	FOP960A3-2020US	Katie Neufeld	USWG0F9602020	hopyard	Evaluate OXTP products for downy mildew control in hops	No		Marty Schraer	PUBLIC INSTITUTION TRIAL	10-Apr-20		10-Apr-20	08-Jun-20

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Single Trial Report (STR)

1. For each trial, a separate Excel file will be generated

2. Each file contains several sheets: Trial info, Expanded, AssSumm, Ass. Raw Values, Appl, Comments and MeteoEdaphic Factors, weather and charts

3. Data in AssSumm tab is sorted by crop, pest, rating type, part rated, rating unit and rating date

4. Charts are created based on this sorting

5. **Note Trt labels are very long in chart, labels can be modified for all charts at once by modifying the labels in column "D" of AssSumm sheet**

6. Report can be generated for means or % of check values

7. Stats shown in case of % check calculations are from analysis of raw values

TSR can be initiated from BioHome

Conclusions:

■ 12-Jun-2020 ■ 19-Jun-2020
  15 DALA   22 DALA

Fusarium graminearum on Corn, NK0472-5222.0
NMG001A3-2020US; USNK0N0012020; Plot Size: 50 ft2; Rep: 6
Method: , Placement: , Timing: , Interval: , Spray Volume:
Mean - COUNT - PLANT - number per 1 a

No Of Apps: 1
App Dates: 28-May-2020

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Single Protocol Report (SPR)

1. For each protocol, a separate Excel file will be generated

2. Each file contains several sheets: Trial info, Expanded, AssSumm, Ass. Raw Values, Appl, Comments and MeteoEdaphic Factors, weather and plot data and pivot chart

3. Based on user's selection on Report builder for grouping the data additional sheets are added in the report

4. Report can be generated for means or % of check values

5. Stats shown in case of % check calculations are from analysis of raw values

6. Visualized report includes a pivot table and chart with slicers

7. Data in pivot chart can be changed to show average of rep value, average of trt mean value or check_pct by clicking on graph options button

8. User can not delete the default slicers provide but additional slicers can be added from the list

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On Demand Report Library

1. On demand report library is Auto-filtered to today's date, remove the filter to see older reports

2. From the "On-Demand Report Library", users can select more than 1 report & choose to download

3. The selected reports are then zipped & downloaded to downloads folder

4. It is recommended to use either Winrar or 7Zip to avoid the display of those error messages. Both programs will unzip the file normally without showing any errors.