



InnoRenew CoE

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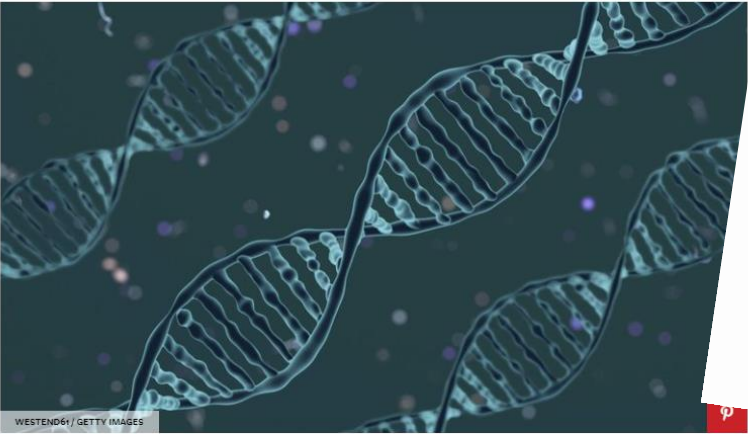
Best practices for using spreadsheets in research data management

Dr. Ana Slavec, InnoRenew CoE

One in Five Genetics Papers Have Errors Caused by Microsoft Excel

Spreadsheet programs like Excel are creating issues when they reformat scientific data.

By Avery Thompson Aug 26, 2016



According to a study in the journal *Genome Biology*, around 20 percent of genetics papers have errors that have been introduced by Microsoft Excel or similar spreadsheet programs. The researchers analyzed more than 35,000 genetics papers and found that Excel spreadsheets to provide lists of

An alarming number of scientific papers contain Excel errors

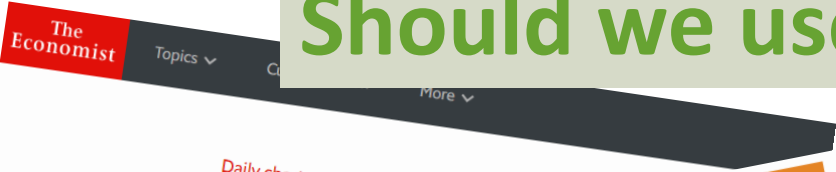


By Christopher Ingraham Reporter

August 26, 2016 at 12:17 p.m. GMT+2

A surprisingly high number of scientific papers in the field of genetics contain errors caused by Microsoft Excel, according to an analysis of 35,000 papers.

Should we use Excel spreadsheets?



Excel errors and science papers

Spreadsheets are playing havoc with scientists

Graphic detail > Sep 7th 2016 | by THE DATA TEAM

THREE years ago Thomas Herndon, a young graduate student from the University of Massachusetts Amherst, made a splash among economists. Given an assignment to reformat published academic papers, he discovered that many of them contained errors introduced by Microsoft Excel.

Excel spreadsheets might be ruining science for everyone

One more reason to hate Excel.

by Tibi Puu — August 7, 2017 - Updated on August 8, 2017 in News

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Spreadsheet Risks in Science

Neuroskeptic | By Neuroskeptic | August 6, 2017 5:08 PM



SIGN UP

EMAIL ADDRESS

The use of spreadsheets such as Microsoft Excel could pose risks for science. That's according to a preprint posted on arXiv from Ghada AlTarawneh and Simon Thorne of Cardiff Metropolitan University. AlTarawneh and Thorne conducted a survey of 17 researchers from the University of Newcastle neuroscience research centre, ranging from PhD students to senior researchers. None of the respondents had any formal, certified training in spreadsheet use, with 71% being self-taught. Despite this, the majority of the researchers rated themselves as "immediate" users of Excel. Worryingly, only 20% reported that they had their spreadsheets checked for errors by colleagues ('peer reviewed'). Most said they did all the testing themselves even that they did none at all.

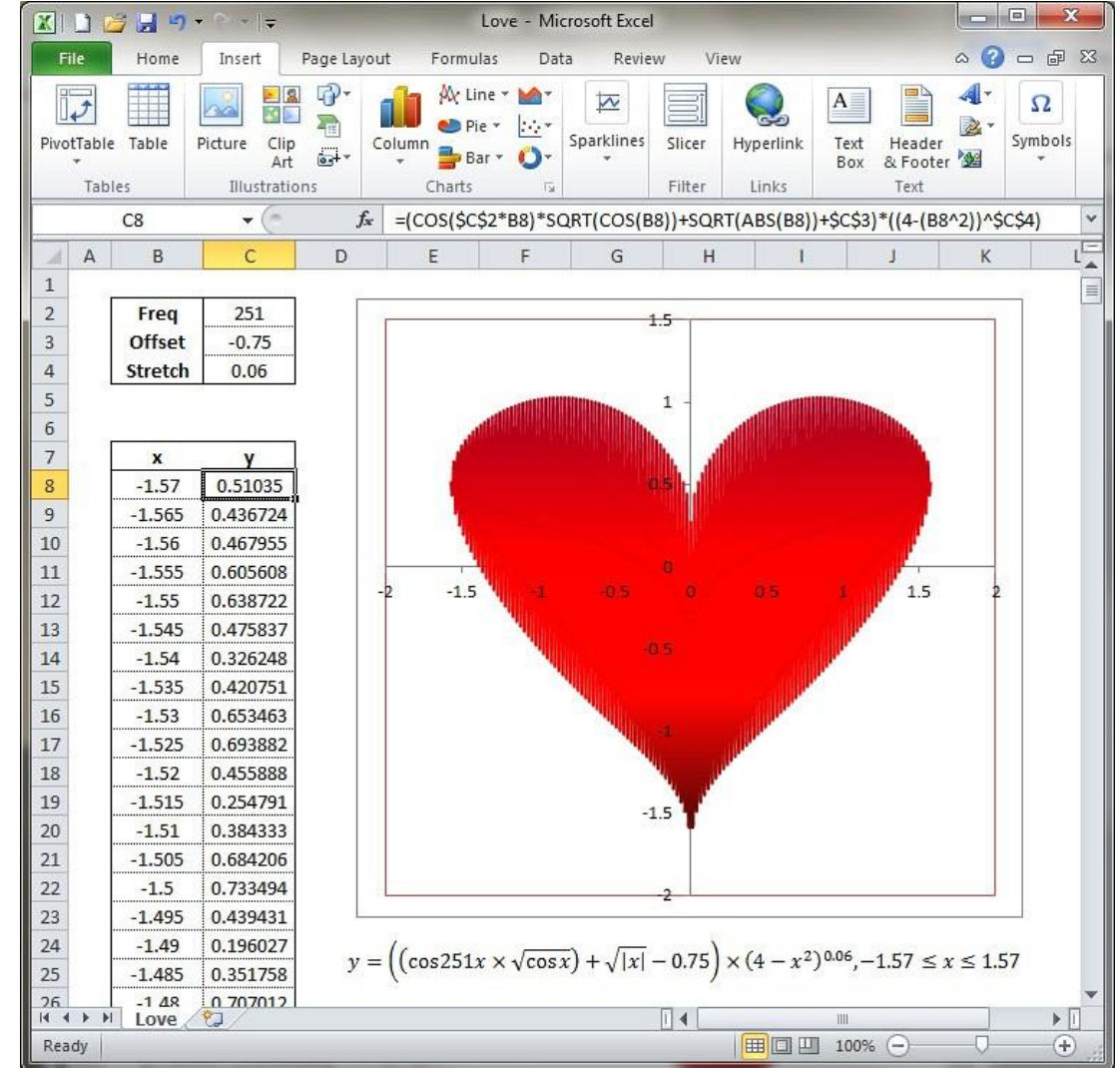
How did you learn how to use spreadsheets?



Self-taught
Peer learning
Certified training courses
Other

Yes, because...

- It's intuitive, easy to use and flexible
- It's very popular
- Errors are usually due to misuse



Source: <https://www.flickr.com/photos/7438170@N06/6862995461/>

...but be aware that:

- XLS is a proprietary format
- Excel is error-prone
- Excel is not reproducibility-friendly

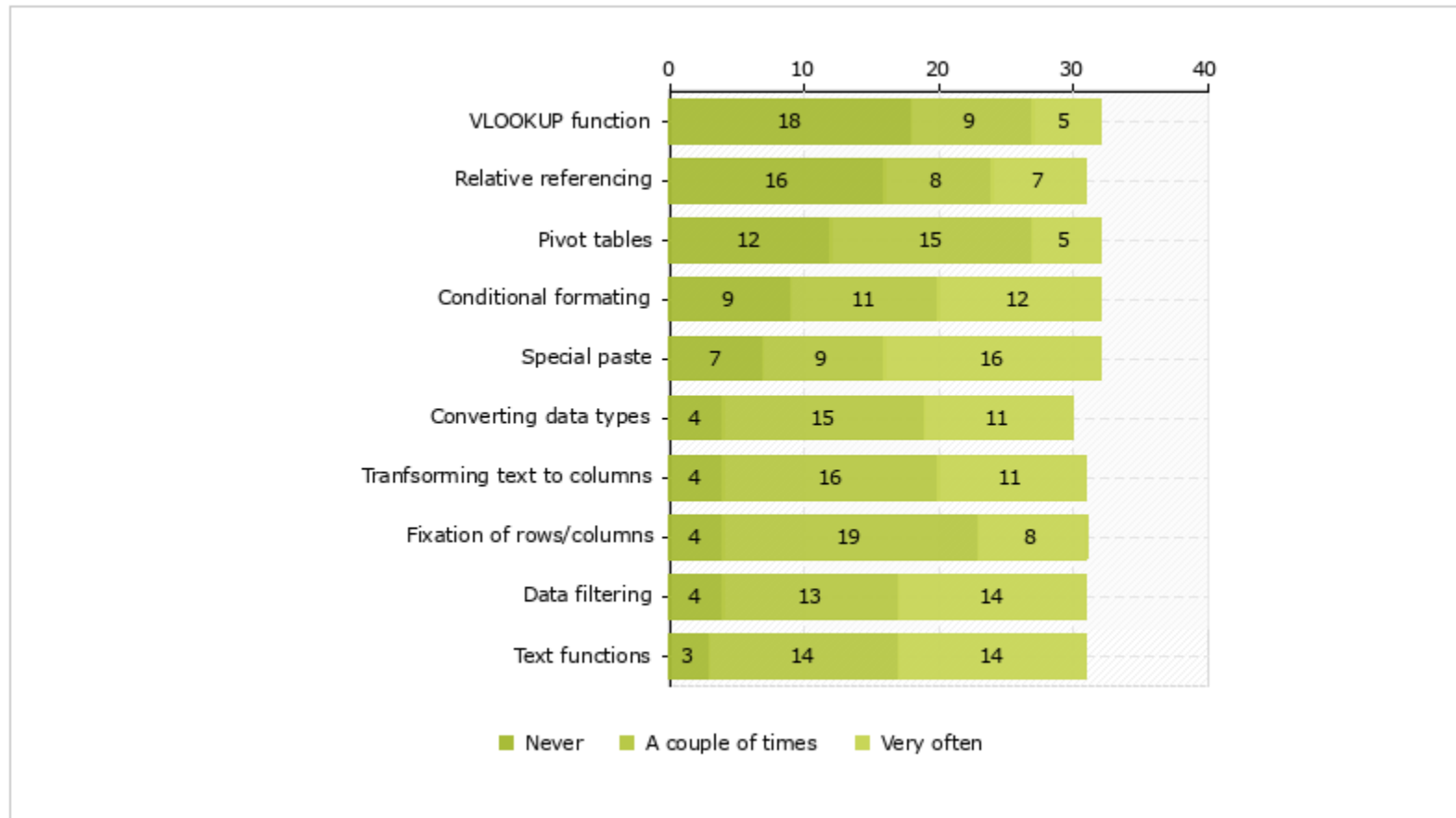




10 Excel functionalities I most often use

- Transforming text to columns
- Fixation of rows/columns
- Converting data types
- Data filtering
- Relative referencing
- Special paste
- Conditional formatting
- Text functions
- Vlookup function
- Pivot tables

Have you ever used the following spreadsheets functionalities? (n=30)





Dataset for exercises

File: [OOTFungi1MS 11112017 v1 r0.csv](#)

Source: Burnard, Michael, Schwarzkopf, Matthew, Tverezovskiy, Viacheslav, Treu, Andreas, Humar, Miha, & Kutnar, Andreja. (2018). Wood preservatives utilizing low-value olive oil production by-products: Analysis [Data set]. Zenodo. <http://doi.org/10.5281/zenodo.1248463>

AutoSave

OOTFungiIMS 11112017 v1 r0 (1)

In CSV files different fields are delimited by characters such as commas, semicolons or tabs.

Convert Text to Columns Wizard - Step 2 of 3

Delimiters

☐ Tab

☐ Semicolon

☒ Comma

☐ Space

☐ Treat consecutive delimiters as one

Text qualifier:

Data preview

SpecimenID	Species	Treatment	Number	StartDate	EndDate	Duration
B-DM-MB-1	B	DM	1	13/07/2016	02/11/2016	1e
B-DM-MB-10	B	DM	10	13/07/2016	02/11/2016	1e
B-DM-MB-11	B	DM	11	13/07/2016	02/11/2016	1e
B-DM-MB-12	B	DM	12	13/07/2016	02/11/2016	1e

Cancel

< Back

Next >

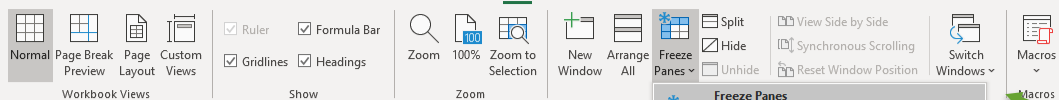
Finish


<


AutoSave ☐ Off


[illegible]

OOTFungi1MS.11112017.v1.r0 (1)



 **Freeze Panes**
Keep rows and columns visible while the rest of the worksheet scrolls (based on current selection).

 **Freeze Top Row**
Keep the top row visible while scrolling through the rest of the worksheet.

 **Freeze First Column**
Keep the first column visible while scrolling through the rest of the worksheet.

[illegible]

**...and that is the the
Freeze Panes command.**

OOTFungi1MS_11112017_v1_r0 (1)

FileHomeInsertPage LayoutFormulasDataReviewViewHelp

CutCopyFormat Painter

Paste

Clipboard

Font

Alignment

Calibri11

A⁺A⁻

B

I

U

Wrap Text

Merge & Center

AutoSave

E1

fx

StartDate

	A	B	C	D	E	F	G	H	I	J
1	SpecimenID	Species	Treatment	Number	StartDate	EndDate	Duration	Inoculant	InitialDry	PostInc
2	B-DM-MB-1	B	DM	1	13.07.2016	2.11.2016	16	pl	1.6776	2.11.2016
3	B-DM-MB-10	B	DM	10	13.07.2016	2.11.2016	16	tv	1.6966	2.11.2016
4	B-DM-MB-11	B	DM	11	13.07.2016	2.11.2016	16	tv	1.6703	2.11.2016
5	B-DM-MB-12	B	DM	12	13.07.2016	2.11.2016	16	tv	1.6715	2.11.2016
6	B-DM-MB-13	B	DM	13	13.07.2016	2.11.2016	16	tv	1.6945	2.11.2016
7	B-DM-MB-14	B	DM	14	13.07.2016	2.11.2016	16	tv	1.6578	2.11.2016
8	B-DM-MB-15	B	DM	15	13.07.2016	2.11.2016	16	tv	1.6721	1.7.2016
9	B-DM-MB-16	B	DM	16	13.07.2016	2.11.2016	16	tv	1.6697	2.11.2016
10	B-DM-MB-17	B	DM	17	28.07.2016	17.11.2016	16	pl	1.5506	2.11.2016
11	B-DM-MB-18	B	DM	18	28.07.2016	17.11.2016	16	pl	1.6728	2.11.2016
12	B-DM-MB-19	B	DM	19	28.07.2016	17.11.2016	16	tv	1.6619	2.11.2016
13	B-DM-MB-2	B	DM	2	13.07.2016	2.11.2016	16	pl	1.6543	2.11.2016
14	B-DM-MB-20	B	DM	20	28.07.2016	17.11.2016	16	tv	1.6144	2.11.2016
15	B-DM-MB-21	B	DM	21	29.07.2016	23.09.2016	8	tv	1.71	2.11.2016
16	B-DM-MB-22	B	DM	22	29.07.2016	23.09.2016	8	tv	1.6338	1.5.2016
17	B-DM-MB-23	B	DM	23	29.07.2016	23.09.2016	8	pl	1.7173	2.11.2016
18	B-DM-MB-24	B	DM	24	29.07.2016	23.09.2016	8	pl	1.7285	2.11.2016
19	B-DM-MB-25	B	DM	25	4.08.2016	29.09.2016	8	pl	1.7293	2.11.2016
20	B-DM-MB-26	B	DM	26	4.08.2016	29.09.2016	8	pl	1.7137	2.11.2016
21	B-DM-MB-27	B	DM	27	4.08.2016	29.09.2016	8	pl	1.5851	1.9546
22	B-DM-MB-28	B	DM	28	4.08.2016	29.09.2016	8	pl	1.6101	2.0313
23	B-DM-MB-29	B	DM	29	4.08.2016	29.09.2016	8	pl	1.6792	2.0884
24	B-DM-MB-3	B	DM	3	13.07.2016	2.11.2016	16	pl	1.6162	2.0028
25	B-DM-MB-30	B	DM	30	4.08.2016	29.09.2016	8	pl	1.6243	2.0613
26	B-DM-MB-31	B	DM	31	4.08.2016	29.09.2016	8	pl	1.7029	2.1486
27	B-DM-MB-32	B	DM	32	4.08.2016	29.09.2016	8	pl	1.7115	2.1377
28	B-DM-MB-33	B	DM	33	4.08.2016	29.09.2016	8	tv	1.727	2.1848
29	B-DM-MB-34	B	DM	34	4.08.2016	29.09.2016	8	tv	1.7166	2.1716
30	B-DM-MB-35	B	DM	35	4.08.2016	29.09.2016	8	tv	1.7139	2.1718
31	B-DM-MB-36	B	DM	36	4.08.2016	29.09.2016	8	tv	1.7267	2.1694
32	B-DM-MB-37	B	DM	37	4.08.2016	29.09.2016	8	tv	1.7372	2.1615
33	B-DM-MB-38	B	DM	38	29.08.2016	24.10.2016	8	tv	1.723	2.1823
34	B-DM-MB-39	B	DM	39	29.08.2016	24.10.2016	8	tv	1.7253	2.1697
35	B-DM-MB-4	B	DM	4	13.07.2016	2.11.2016	16	pl	1.6965	2.1368
36	B-DM-MB-40	B	DM	40	29.08.2016	24.10.2016	8	tv	1.7278	2.1516
37	B-DM-MB-5	B	DM	5	13.07.2016	2.11.2016	16	pl	1.6761	2.0886
38	B-DM-MB-6	B	DM	6	13.07.2016	2.11.2016	16	pl	1.6856	2.1696
39	B-DM-MB-7	B	DM	7	13.07.2016	2.11.2016	16	pl	1.7072	2.1999
40	B-DM-MB-8	B	DM	8	13.07.2016	2.11.2016	16	pl	1.6566	2.1348
41	B-DM-MB-9	B	DM	9	13.07.2016	2.11.2016	16	tv	1.7031	2.192
42	B-GM-MB-1	B	GM	41	13.07.2016	2.11.2016	16	pl	1.651	2.1214
43	B-GM-MB-10	B	GM	50	13.07.2016	2.11.2016	16	tv	1.6994	2.2119
44	B-GM-MB-11	B	GM	51	13.07.2016	2.11.2016	16	tv	1.7179	2.2332
45	B-GM-MB-12	B	GM	52	13.07.2016	2.11.2016	16	tv	1.6671	2.1205
46	B-GM-MB-13	B	GM	53	13.07.2016	2.11.2016	16	tv	1.6828	2.1195
47	B-GM-MB-14	B	GM	54	13.07.2016	2.11.2016	16	tv	1.6154	2.104
48	B-GM-MB-15	B	GM	55	13.07.2016	2.11.2016	16	tv	1.68	2.1399
49	B-GM-MB-16	B	GM	56	13.07.2016	2.11.2016	16	tv	1.6497	2.1353
50	B-GM-MB-17	B	GM	57	28.07.2016	17.11.2016	16	pl	1.6203	2.1857
51	B-GM-MB-18	B	GM	58	28.07.2016	17.11.2016	16	pl	1.6964	2.1777
52	B-GM-MB-19	B	GM	59	28.07.2016	17.11.2016	16	tv	1.7008	2.1389
53	B-GM-MB-2	B	GM	42	13.07.2016	2.11.2016	16	pl	1.6283	2.1224
54	B-GM-MB-20	B	GM	60	28.07.2016	17.11.2016	16	tv	1.7411	2.2051

	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM
648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	plo1															
681	454	1.0156	0.4376	0.0878	0.64	0.51	0.14	0.35	0.24	0.32	plo2															
697	465	0.9733	0.508	0.1079	0.73	0.47	0.11	0.4	0.27	0.37	plo3															
654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	plo4															
673	449	1.0215	0.459	0.0558	0.68	0.43	0.13	0.4	0.27	0.37	plo5															
657	438	1.0008	0.4763	0.0852	0.72	0.43	0.11	0.39	0.26	0.36	plo6															
668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo7															
662	441	1.0077	0.467	0.0945	0.71	0.46	0.12	0.37	0.25	0.34	plo8															
635	423	0.9156	0.5359	0.1936	0.84	0.41	0.06	0.34	0.24	0.31	tv1															
677	451	0.9958	0.4527	0.0923	0.67	0.51	0.13	0.36	0.25	0.33	tv2															
667	447	0.9919	0.4741	0.0977	0.71	0.47	0.12	0.38	0.26	0.35	tv3															
702	468	0.9523	0.5163	0.1058	0.74	0.4	0.11	0.41	0.28	0.39	tv4															
636	424	0.9784	0.4794	0.0925	0.75	0.43	0.1	0.39	0.27	0.36	tv5															
674	449	1.036	0.5783	0.0164	0.86	0.26	0.06	0.56	0.35	0.53	tv6															
628	419	1.0058	0.5236	0.0255	0.83	0.28	0.06	0.5	0.33	0.48	tv7															
635	423	1.0823	0.607	0.0146	0.96	0.2	0.02	0.59	0.35	0.54	tv8															
702	468	1.0265	0.5994	0.0174	0.85	0.26	0.06	0.58	0.36	0.56	plo9															
676	451	1.0533	0.5134	0.0231	0.76	0.33	0.09	0.49	0.31	0.46	plo10															
674	449	1.0397	0.5203	0.0522	0.77	0.39	0.09	0.47	0.3	0.43	tv9															
635	423	0.9501	0.5084	0.0376	0.8	0.34	0.08	0.47	0.32	0.48	tv10															
601	1.0081	0.4616	0.0355	0.77	0.38	0.09	0.43	0.29	0.41	tv11																
672	448	1.0072	0.5703	0.0726	0.85	0.32	0.06	0.5	0.32	0.46	tv12															
632	421	0.9842	0.4827	0.1236	0.76	0.37	0.09	0.36	0.24	0.32	plo11															
614	409	1.0103	0.5292	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	plo12															
671	0.9959	0.6014	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	plo13																
671	1.0055	0.5763	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	plo14																
676	451	1.051	0.4875	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	plo15															
643	1.0526	0.4709	0.0298	0.71	0.43	0.11	0.44	0.29	0.41	plo16																
605	1.1069	0.5109	0.0525	0.84	0.34	0.06	0.46	0.28	0.4	plo17																
685	1.0417	0.4788	0.0476	0.7	0.43	0.12	0.43	0.28	0.4	plo18																
687	1.0502	0.5196	0.043	0.76	0.38	0.1	0.48	0.3	0.44	plo19																
664	1.027	0.4968	0.033	0.71	0.43	0.12	0.46	0.3	0.44	plo20																
651	1.0483	0.4686	0.0311	0.69	0.43	0.12	0.44	0.29	0.41	tv13																
675	0.9845	0.5097	0.084	0.72	0.43	0.12	0.43	0.28	0.4	tv14																
674	1.0138	0.4425	0.0296	0.62	0.48	0.16	0.41	0.28	0.4	tv15																
639	1.0181	0.4818	0.0769	0.73	0.39	0.11	0.4	0.27	0.37	tv16																
673	1.0126	0.5881	0.0946	0.83	0.38	0.07	0.46	0.3	0.42	tv17																
665	1.0422	0.5114																								

[illegible]

According to the Slovenian grammar the date should be written without zeros and with spaces. So let's change to that format.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AN			
1	SpecimenID	Species	Treatment	Number	StartDate	EndDate	Duration	Inoculant	InitialDry	PostInocu	PostInnoc	PostExtract	Impregnan	Retention	WoodWeigh	OilRemainin	EndWeigh	OilRemain	MCPostIn	RelativeM	OilExtract	OilExtract	OilConter	PetriDish																		
2	B-DM-MB-1	B	DM	1	13. 7. 2016	2. 11. 2016	16 pl	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	plo1																			
3	B-DM-MB-10	B	DM	10	13. 7. 2016	2. 11. 2016	16 tv	1.6966	2.1996	1.4532	1.1034	0.681	454	1.0156	0.4376	0.0878	0.64	0.51	0.14	0.35	0.24	0.32	plo2																			
4	B-DM-MB-11	B	DM	11	13. 7. 2016	2. 11. 2016	16 tv	1.6703	2.1793	1.4813	1.0812	0.697	465	0.9733	0.508	0.1079	0.73	0.47	0.11	0.4	0.27	0.37	plo3																			
5	B-DM-MB-12	B	DM	12	13. 7. 2016	2. 11. 2016	16 tv	1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	plo4																			
6	B-DM-MB-13	B	DM	13	13. 7. 2016	2. 11. 2016	16 tv	1.6945	2.12	1.4805	1.0773	0.673	449	1.0215	0.459	0.0558	0.68	0.43	0.13	0.4	0.27	0.37	plo5																			
7	B-DM-MB-14	B	DM	14	13. 7. 2016	2. 11. 2016	16 tv	1.6578	2.1165	1.4771	1.086	0.657	438	1.0008	0.4763	0.0852	0.72	0.43	0.11	0.39	0.26	0.36	plo6																			
8	B-DM-MB-15	B	DM	15	13. 7. 2016	2. 11. 2016	16 tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo7																			
9	B-DM-MB-16	B	DM	16	13. 7. 2016	2. 11. 2016	16 tv	1.6697	2.1595	1.4747	1.1022	0.662	441	1.0077	0.467	0.0945	0.71	0.46	0.12	0.37	0.25	0.34	plo8																			
10	B-DM-MB-17	B	DM	17	28. 7. 2016	17. 11. 2016	16 pl	1.5506	2.0535	1.4515	1.1092	0.635	423	0.9156	0.5359	0.1936	0.84	0.41	0.06	0.34	0.24	0.31	tv1																			
11	B-DM-MB-18	B	DM	18	28. 7. 2016	17. 11. 2016	16 pl	1.6728	2.1836	1.4485	1.0881	0.677	451	0.9958	0.4527	0.0923	0.67	0.51	0.13	0.36	0.25	0.33	tv2																			
12	B-DM-MB-19	B	DM	19	28. 7. 2016	17. 11. 2016	16 tv	1.6619	2.1545	1.466	1.0896	0.67	447	0.9919	0.4741	0.0977	0.71	0.47	0.12	0.38	0.26	0.35	tv3																			
13	B-DM-MB-2	B	DM	2	13. 7. 2016	2. 11. 2016	16 pl	1.6543	2.0619	1.4686	1.0581	0.702	468	0.9523	0.5163	0.1058	0.74	0.4	0.11	0.41	0.28	0.39	tv4																			
14	B-DM-MB-20	B	DM	20	28. 7. 2016	17. 11. 2016	16 tv	1.6144	2.085	1.4578	1.0709	0.636	424	0.9784	0.4794	0.0925	0.75	0.43	0.1	0.39	0.27	0.36	tv5																			
15	B-DM-MB-21	B	DM	21	29. 7. 2016	23. 9. 2016	8 tv	1.71	2.0388	1.6143	1.0524	0.674	449	1.036	0.5783	0.0164	0.86	0.26	0.06	0.56	0.35	0.53	tv6																			
16	B-DM-MB-22	B	DM	22	29. 7. 2016	23. 9. 2016	8 tv	1.6338	1.9538	1.5294	1.0313	0.628	419	1.0058	0.5236	0.0255	0.83	0.28	0.06	0.5	0.33	0.48	tv7																			
17	B-DM-MB-23	B	DM	23	29. 7. 2016	23. 9. 2016	8 pl	1.7173	2.0337	1.6893	1.0969	0.635	423	1.0823	0.607	0.0146	0.96	0.2	0.02	0.59	0.35	0.54	tv8																			
18	B-DM-MB-24	B	DM	24	29. 7. 2016	23. 9. 2016	8 pl	1.7285	2.0478	1.6259	1.0439	0.702	468	1.0265	0.5994	0.0174	0.85	0.26	0.06	0.58	0.36	0.56	plo9																			
19	B-DM-MB-25	B	DM	25	4. 8. 2016	29. 9. 2016	8 pl	1.7293	2.0841	1.5667	1.0764	0.676	451	1.0533	0.5134	0.0231	0.76	0.33	0.09	0.49	0.31	0.46	plo10																			
20	B-DM-MB-26	B	DM	26	4. 8. 2016	29. 9. 2016	8 pl	1.7137	2.1654	1.56	1.0919	0.674	449	1.0397	0.5203	0.0522	0.77	0.39	0.09	0.47	0.3	0.43	tv9																			
21	B-DM-MB-27	B	DM	27	4. 8. 2016	29. 9. 2016	8 pl	1.5851	1.9546	1.4585	0.9877	0.635	423	0.9501	0.5084	0.0376	0.8	0.34	0.08	0.47	0.32	0.48	tv10																			
22	B-DM-MB-28	B	DM	28	4. 8. 2016	29. 9. 2016	8 pl	1.6101	2.0313	1.4697	1.0436	0.602	401	1.0081	0.4616	0.0355	0.77	0.38	0.09	0.43	0.29	0.41	tv11																			
23	B-DM-MB-29	B	DM	29	4. 8. 2016	29. 9. 2016	8 pl	1.6792	2.0884	1.5775	1.0798	0.672	448	1.0072	0.5703	0.0726	0.85	0.32	0.06	0.5	0.32	0.46	tv12																			
24	B-DM-MB-3	B	DM	3	13. 7. 2016	2. 11. 2016	16 pl	1.6162	2.0028	1.4669	1.1078	0.632	421	0.9842	0.4827	0.1236	0.76	0.37	0.09	0.36	0.24	0.32	plo11																			
25	B-DM-MB-30	B	DM	30	4. 8. 2016	29. 9. 2016	8 pl	1.6243	2.0613	1.5395	1.0468	0.614	409	1.0103	0.5292	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	plo12																			
26	B-DM-MB-31	B	DM	31	4. 8. 2016	29. 9. 2016	8 pl	1.7029	2.1486	1.5973	1.0518	0.707	471	0.9959	0.6014	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	plo13																			
27	B-DM-MB-32	B	DM	32	4. 8. 2016	29. 9. 2016	8 pl	1.7115	2.1377	1.5818	1.0477	0.706	471	1.0055	0.5763	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	plo14																			
28	B-DM-MB-33	B	DM	33	4. 8. 2016	29. 9. 2016	8 tv	1.727	2.1848	1.5385	1.0867	0.676	451	1.051	0.4875	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	plo15																			
29	B-DM-MB-34	B	DM	34	4. 8. 2016	29. 9. 2016	8 tv	1.7166	2.1716	1.5235	1.0824	0.664	443	1.0526	0.4709	0.0298	0.71	0.43	0.11	0.44	0.29	0.41	plo16																			
30	B-DM-MB-35	B	DM	35	4. 8. 2016	29. 9. 2016	8 tv	1.7139	2.1718	1.6178	1.1594	0.607	405	1.1069	0.5109	0.0525	0.84	0.34	0.06	0.46	0.28	0.4	plo17																			
31	B-DM-MB-36	B	DM	36	4. 8. 2016	29. 9. 2016	8 tv	1.7267	2.1694	1.5205	1.0893	0.685	457	1.0417	0.4788	0.0476	0.7	0.43	0.12	0.43	0.28	0.4	plo18																			
32	B-DM-MB-37	B	DM	37	4. 8. 2016	29. 9. 2016	8 tv	1.7372	2.1615	1.5698	1.0932	0.687	458	1.0502	0.5196	0.043	0.76	0.38	0.1	0.48	0.3	0.44	plo19																			
33	B-DM-MB-38	B	DM	38	29. 8. 2016	24. 10. 2016	8 tv	1.723	2.1823	1.5238	1.06	0.696	464	1.027	0.4968	0.033	0.71	0.43	0.12	0.46	0.3	0.44	plo20																			
34	B-DM-MB-39	B	DM	39	29. 8. 2016	24. 10. 2016	8 tv	1.7253	2.1697	1.5169	1.0794	0.677	451	1.0483	0.4686	0.0311	0.69	0.43	0.12	0.44	0.29	0.41	tv13																			
35	B-DM-MB-4	B	DM	4	13. 7. 2016	2. 11. 2016	16 pl	1.6965	2.1368	1.4942	1.0685	0.712	475	0.9845	0.5097	0.084	0.72	0.43	0.12	0.43	0.28	0.4	tv14																			
36	B-DM-MB-40	B	DM	40	29. 8. 2016	24. 10. 2016	8 tv	1.7278	2.1516	1.4563	1.0434	0.714	476	1.0138	0.4425	0.0296	0.62	0.48	0.16	0.41	0.28	0.4	tv15																			
37	B-DM-MB-5	B	DM	5	13. 7. 2016	2. 11. 2016	16 pl	1.6761	2.0886	1.4999	1.095	0.658	439	1.0181	0.4818	0.0769	0.73	0.39	0.11	0.4	0.27	0.37	tv16																			
38	B-DM-MB-6	B	DM	6	13. 7. 2016	2. 11. 2016	16 pl	1.6856	2.1696	1.5707	1.1072	0.673	449	1.0126	0.5581	0.0946	0.83	0.38	0.07	0.46	0.3	0.42	tv17																			
39	B-DM-MB-7	B	DM	7	13. 7. 2016	2. 11. 2016	16 pl	1.7072	2.1999	1.5536	1.1542	0.665	443	1.0422	0.5114	0.112	0.77	0.42	0.09	0.4	0.26	0.35	tv18																			
40	B-DM-MB-8	B	DM	8	13. 7. 2016	2. 11. 2016	16 pl	1.6566	2.																																	

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Cells: Insert, Delete, Format

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Ideas: Ideas, Sensitivity

AutoSave ☐ Off

E1 f_{sc} StartDate

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM			
1	SpecimenI	Species	Treatm	Numbe	StartDat	EndDate	Duratic	Inocula	InitialD	Postinc	PostInr	PostExr	Impreg	Retent	WoodV	Remair	EndWe	OilRem	MCPos	Relativ	OilExtr	OilExtr	OilCon	PetriDi																		
19	B-DM-MB-25	B	DM	25	4.8.2016	29.9.2016		8 pl	1.7293	2.0841	1.5667	1.0764	0.676	451	1.0533	0.5134	0.0231	0.76	0.33	0.09	0.49	0.31	0.46	plo10																		
20	B-DM-MB-26	B	DM	26	4.8.2016	29.9.2016		8 pl	1.7137	2.1654	1.56	1.0919	0.674	449	1.0397	0.5203	0.0522	0.77	0.39	0.09	0.47	0.3	0.43	tv9																		
21	B-DM-MB-27	B	DM	27	4.8.2016	29.9.2016		8 pl	1.5851	1.9546	1.4585	0.9877	0.635	423	0.9501	0.5084	0.0376	0.8	0.34	0.08	0.47	0.32	0.48	tv10																		
22	B-DM-MB-28	B	DM	28	4.8.2016	29.9.2016		8 pl	1.6101	2.0313	1.4697	1.0436	0.602	401	1.0081	0.4616	0.0355	0.77	0.38	0.09	0.43	0.29	0.41	tv11																		
23	B-DM-MB-29	B	DM	29	4.8.2016	29.9.2016		8 pl	1.6792	2.0884	1.5775	1.0798	0.672	448	1.0072	0.5703	0.0726	0.85	0.32	0.06	0.5	0.32	0.46	tv12																		
25	B-DM-MB-30	B	DM	30	4.8.2016	29.9.2016		8 pl	1.6243	2.0613	1.5395	1.0468	0.614	409	1.0103	0.5292	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	plo12																		
26	B-DM-MB-31	B	DM	31	4.8.2016	29.9.2016		8 pl	1.7029	2.1486	1.5973	1.0518	0.707	471	0.9959	0.6014	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	plo13																		
27	B-DM-MB-32	B	DM	32	4.8.2016	29.9.2016		8 pl	1.7115	2.1377	1.5818	1.0477	0.706	471	1.0055	0.5763	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	plo14																		
28	B-DM-MB-33	B	DM	33	4.8.2016	29.9.2016		8 tv	1.727	2.1848	1.5385	1.0867	0.676	451	1.051	0.4875	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	plo15																		
29	B-DM-MB-34	B	DM	34	4.8.2016	29.9.2016		8 tv	1.7166	2.1716	1.5235	1.0824	0.664	443	1.0526	0.4709	0.0298	0.71	0.43	0.11	0.44	0.29	0.41	plo16																		
30	B-DM-MB-35	B	DM	35	4.8.2016	29.9.2016		8 tv	1.7139	2.1718	1.6178	1.1594	0.607	405	1.1069	0.5109	0.0525	0.84	0.34	0.06	0.46	0.28	0.4	plo17																		
31	B-DM-MB-36	B	DM	36	4.8.2016	29.9.2016		8 tv	1.7267	2.1694	1.5205	1.0893	0.685	457	1.0417	0.4788	0.0476	0.7	0.43	0.12	0.43	0.28	0.4	plo18																		

Clipboard: Paste, Copy, Format Painter

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Ideas: Ideas

Sensitivity: Sensitivity

AutoSave ☐ Off    

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AN		
1	SpecimenID	Species	Treatment	Number	StartDate	EndDate	Duration	Inoculum	InitialID	PostInc	PostIncR	PostExt	Impreg	Retent	WoodV	Remain	EndWe	OilRem	MCPos	Relativ	OilExtr	OilExtr	OilCon	PetriDi																	
19	B-DM-MB-25	↓ Sort Oldest to Newest			29. 9. 2016		8 pl		1.7293	2.0841	1.5667	1.0764	0.676	451	1.0533	0.5134	0.0231	0.76	0.33	0.09	0.49	0.31	0.46	pl010																	
20	B-DM-MB-26	↑ Sort Newest to Oldest			29. 9. 2016		8 pl		1.7137	2.1654	1.56	1.0919	0.674	449	1.0397	0.5203	0.0522	0.77	0.39	0.09	0.47	0.3	0.43	tv9																	
21	B-DM-MB-27	Sort by Color			29. 9. 2016		8 pl		1.5851	1.9546	1.4585	0.9877	0.635	423	0.9501	0.5084	0.0376	0.8	0.34	0.08	0.47	0.32	0.48	tv10																	
22	B-DM-MB-28				29. 9. 2016		8 pl		1.6101	2.0313	1.4697	1.0436	0.602	401	1.0081	0.4616	0.0355	0.77	0.38	0.09	0.43	0.29	0.41	tv11																	
23	B-DM-MB-29	Clear Filter From "StartDate"			29. 9. 2016		8 pl		1.6792	2.0884	1.5775	1.0798	0.672	448	1.0072	0.5703	0.0726	0.85	0.32	0.06	0.5	0.32	0.46	tv12																	
25	B-DM-MB-30	Filter by Color			29. 9. 2016		8 pl		1.6243	2.0613	1.5395	1.0468	0.614	409	1.0103	0.5292	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	pl012																	
26	B-DM-MB-31	Date Filters			29. 9. 2016		8 pl		1.7029	2.1486	1.5973	1.0518	0.707	471	0.9959	0.6014	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	pl013																	
27	B-DM-MB-32				29. 9. 2016		8 pl		1.7115	2.1377	1.5818	1.0477	0.706	471	1.0055	0.5763	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	pl014																	
28	B-DM-MB-33	Search (All)			29. 9. 2016		8 tv		1.727	2.1848	1.5385	1.0867	0.676	451	1.051	0.4875	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	pl015																	
29	B-DM-MB-34	(Select All)			29. 9. 2016		8 tv		1.7166	2.1716	1.5235	1.0824	0.664	443	1.0526	0.4709	0.0298	0.71	0.43	0.11	0.44	0.29	0.41	pl016																	
30	B-DM-MB-35	2016			29. 9. 2016		8 tv		1.7139	2.1718	1.6178	1.1594	0.607	405	1.1069	0.5109	0.0525	0.84	0.34	0.06	0.46	0.28	0.4	pl017																	
31	B-DM-MB-36	2016			29. 9. 2016		8 tv		1.7267	2.1694	1.5205	1.0893	0.685	457	1.0417	0.4788	0.0476	0.7	0.43	0.12	0.43	0.28	0.4	pl018																	
32	B-DM-MB-37	2016			29. 9. 2016		8 tv		1.7372	2.1615	1.5698	1.0932	0.687	458	1.0502	0.5196	0.043	0.76	0.38	0.1	0.48	0.3	0.44	pl019																	
59	B-GM-MB-25	2016			29. 9. 2016		8 pl		1.7076	2.1219	1.179	1.0448	0.679	453	1.0286	0.1504	0.0162	0.22	0.8	0.31	0.13	0.11	0.13	pl010																	
60	B-GM-MB-26	2016			29. 9. 2016		8 pl		1.7226	2.1533	1.3768	1.0759	0.691	461	1.0316	0.3452	0.0443	0.5	0.56	0.2	0.3	0.22	0.28	tv9																	
61	B-GM-MB-27	2016			29. 9. 2016		8 pl		1.7362	2.179	1.2166	1.077	0.685	457	1.0512	0.1654	0.0258	0.24	0.79	0.3	0.14	0.11	0.13	tv10																	
62	B-GM-MB-28	2016			29. 9. 2016		8 pl		1.7272	2.1602	1.1877	1.0318	0.717	478	1.0102	0.1775	0.0216	0.25	0.82	0.31	0.16	0.13	0.15	tv11																	
63	B-GM-MB-29	2016			29. 9. 2016		8 pl		1.7512	2.1921	1.2902	1.0972	0.685	457	1.0662	0.224	0.031	0.33	0.7	0.26	0.19	0.15	0.18	tv12																	
65	B-GM-MB-30	2016			29. 9. 2016		8 pl		1.7359	2.1776	1.2434	1.1066	0.685	457	1.0509	0.1925	0.0557	0.28	0.75	0.28	0.14	0.11	0.12	pl012																	
66	B-GM-MB-31	2016			29. 9. 2016		8 pl		1.7379	2.1717	1.1766	1.0458	0.729	486	1.0089	0.1677	0.0369	0.23	0.85	0.32	0.13	0.11	0.13	pl013																	
67	B-GM-MB-32	2016			29. 9. 2016		8 pl		1.7211	2.1972	1.3373	1.1471	0.61	407	1.1111	0.2262	0.036	0.37	0.64	0.22	0.19	0.14	0.17	pl014																	
68	B-GM-MB-33	2016			29. 9. 2016		8 tv		1.7193	2.187	1.2328	1.0555	0.695	463	1.0243	0.2085	0.0312	0.3	0.77	0.28	0.18	0.14	0.17	pl015																	
69	B-GM-MB-34	2016			29. 9. 2016		8 tv		1.7141	2.2059	1.2786	1.1477	0.593	395	1.1211	0.1575	0.0266	0.27	0.73	0.25	0.13	0.1	0.11	pl016																	
70	B-GM-MB-35	2016			29. 9. 2016		8 tv		1.755	2.2016	1.2219	1.0768	0.698	465	1.057	0.1649	0.0198	0.24	0.8	0.3	0.15	0.12	0.13	pl017																	
71	B-GM-MB-36	2016			29. 9. 2016		8 tv		1.7313	2.1653	1.1954	1.0612	0.704	469	1.0273	0.1681	0.0339	0.24	0.81	0.31	0.13	0.11	0.13	pl018																	
72	B-GM-MB-37	2016			29. 9. 2016		8 tv		1.7286	2.1571	1.2141	1.0645	0.698	465	1.0306	0.1835	0.0339	0.26	0.78	0.3	0.15	0.12	0.14	pl019																	
123	B-kontrola	B			341 4. 8. 2016	29. 9. 2016	8 pl		0.9253	1.4631	0.8582	0	0	0	0.9253	0	-0.0671	0	0.7	0.07	0.86	1 NA		pm1																	
123	B-kontrola	B			342 4. 8. 2016	29. 9. 2016	8 pl		0.9489	1.5195	0.8345	0	0	0	0.9489	0	-0.1144	0	0.82	0.12	0.83	1 NA		pm2																	
124	B-kontrola	B			343 4. 8. 2016	29. 9. 2016	8 pl		0.9923	1.5415	0.9494	0	0	0	0.9923	0	-0.0429	0	0.62	0.04	0.95	1 NA		pm3																	
125	B-kontrola	B			344 4. 8. 2016	29. 9. 2016	8 pl		0.9751	1.4745	0.9158	0	0	0	0.9751	0	-0.0593	0	0.61	0.06	0.92	1 NA		gt1																	
126	B-kontrola	B			345 4. 8. 2016	29. 9. 2016	8 pl		1.0038	1.6574	0.9291	0	0	0	1.0038	0	-0.0747	0	0.78	0.07	0.93	1 NA		gt2																	
127	B-kontrola	B			346 4. 8. 2016	29. 9. 2016	8 pl		0.979	1.3793	0.976	0	0	0	0.979	0	-0.003	0	0.41	0	0.98	1 NA		gt3																	
128	B-kontrola	B			347 4. 8. 2016	29. 9. 2016	8 pl		0.9456	1.3371	0.9364	0	0	0	0.9456	0	-0.0092	0	0.43	0.01	0.94	1 NA		gt4																	
129	B-kontrola	B			348 4. 8. 2016	29. 9. 2016	8 pl		0.9264	1.2996	0.8894	0	0	0	0.9264	0	-0.037	0	0.46	0.04	0.89	1 NA		gt5																	
130	B-kontrola	B			349 4. 8. 2016	29. 9. 2016	8 pl		0.9878	1.2805	0.7936	0	0	0	0.9878	0	-0.1942	0	0.61	0.2	0.79	1 NA		pm4																	
131	B-kontrola	B			350 4. 8. 2016	29. 9. 2016	8 pl		0.9603	1.4902	0.7951	0	0	0	0.9603	0	-0.1652	0	0.87	0.17	0.8	1 NA		pm5																	
132	B-kontrola	B			351 4. 8. 2016	29. 9. 2016	8 pl		0.9537	1.4277	0.7835	0	0	0	0.9537	0	-0.1702	0	0.82	0.18	0.78	1 NA		pm6																	
133	B-kontrola	B			352 4. 8. 2016	29. 9. 2016	8 pl		0.9709	1.3721	0.7957	0	0	0	0.9709	0	-0.1752	0	0.72	0.18	0.8	1 NA		pm7																	
134	B-kontrola	B			353 4. 8. 2016	29. 9. 2016	8 pl		0.9119	1.4062	0.7797	0	0	0	0.9119	0	-0.1322	0	0.8	0.14	0.78	1 NA		pm8																	
135	B-kontrola	B			354 4. 8. 2016	29. 9. 2016	8 pl		0.9049	1.3515	0.8035	0	0	0	0.9049	0	-0.1014	0	0.68	0.11	0.8	1 NA		pm9																	
136	B-kontrola	B			355 4. 8. 2016	29. 9. 2016	8 pl		0.9582	1.585	0.8592	0	0	0	0.9582	0	-0.099	0	0.84	0.1	0.86	1 NA		pm10																	
137	B-kontrola	B			356 4. 8. 2016	29. 9. 2016	8 pl		0.9404	1.4107	0.8502	0</																													

... so be careful and clean
the filter after you don't
need it anymore.

OOTFungi1MS.11112017.v1_r0 (1)

	A	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1	SpecimenID	InitialDryWt	PostInocWt	PostInocWt	PostExtractionWt	ImpregnationWt	RetentionWt	WoodWeight	RemainingWt	EndWeight	OilRemainingWt	MCPostLoss	RelativeMoisture	OilExtractWt	OilExtractWt	OilContent	PetriDishWt	I-J		
2	B-DM-MB-1	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	pl01	=I2-J2		
3	B-DM-MB-10	1.6966	2.1996	1.4532	1.1034	0.681	454	1.0156	0.4376	0.0878	0.64	0.51	0.14	0.35	0.24	0.32	pl02			
4	B-DM-MB-11	1.6703	2.1793	1.4813	1.0812	0.697	465	0.9733	0.508	0.1079	0.73	0.47	0.11	0.4	0.27	0.37	pl03			
5	B-DM-MB-12	1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	pl04			
6	B-DM-MB-13	1.6945	2.12	1.4805	1.0773	0.673	449	1.0215	0.459	0.0558	0.68	0.43	0.13	0.4	0.27	0.37	pl05			
7	B-DM-MB-14	1.6578	2.1165	1.4771	1.086	0.657	438	1.0008	You click the cell where you want the result to appear in the formula and type the equality sign and formula. When to formula is completed press the Enter key.											
8	B-DM-MB-15	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041												
9	B-DM-MB-16	1.6697	2.1595	1.4747	1.1022	0.662	441	1.0077												
10	B-DM-MB-17	1.5506	2.0535	1.4515	1.1092	0.635	423	0.9156												
11	B-DM-MB-18	1.6728	2.1836	1.4485	1.0881	0.677	451	0.9958												
12	B-DM-MB-19	1.6619	2.1545	1.466	1.0896	0.67	447	0.9919												
13	B-DM-MB-2	1.6543	2.0619	1.4686	1.0581	0.702	468	0.9523												
14	B-DM-MB-20	1.6144	2.085	1.4578	1.0709	0.636	424	0.9784												
15	B-DM-MB-21	1.71	2.0388	1.6143	1.0524	0.674	449	1.036												
16	B-DM-MB-22	1.6338	1.9538	1.5294	1.0313	0.628	419	1.0058												
17	B-DM-MB-23	1.7173	2.0337	1.6893	1.0969	0.635	423	1.0823	0.607	0.0146	0.96	0.2	0.02	0.59	0.35	0.54	tv8			
18	B-DM-MB-24	1.7285	2.0478	1.6259	1.0439	0.702	468	1.0265	0.5994	0.0174	0.85	0.26	0.06	0.58	0.36	0.56	pl09			
19	B-DM-MB-25	1.7293	2.0841	1.5667	1.0764	0.676	451	1.0533	0.5134	0.0231	0.76	0.33	0.09	0.49	0.31	0.46	pl010			
20	B-DM-MB-26	1.7137	2.1654	1.56	1.0919	0.674	449	1.0397	0.5203	0.0522	0.77	0.39	0.09	0.47	0.3	0.43	tv9			
21	B-DM-MB-27	1.5851	1.9546	1.4585	0.9877	0.635	423	0.9501	0.5084	0.0376	0.8	0.34	0.08	0.47	0.32	0.48	tv10			
22	B-DM-MB-28	1.6101	2.0313	1.4697	1.0436	0.602	401	1.0081	0.4616	0.0355	0.77	0.38	0.09	0.43	0.29	0.41	tv11			
23	B-DM-MB-29	1.6792	2.0884	1.5775	1.0798	0.672	448	1.0072	0.5703	0.0726	0.85	0.32	0.06	0.5	0.32	0.46	tv12			
24	B-DM-MB-3	1.6162	2.0028	1.4669	1.1078	0.632	421	0.9842	0.4827	0.1236	0.76	0.37	0.09	0.36	0.24	0.32	pl011			
25	B-DM-MB-30	1.6243	2.0613	1.5395	1.0468	0.614	409	1.0103	0.5292	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	pl012			
26	B-DM-MB-31	1.7029	2.1486	1.5973	1.0518	0.707	471	0.9959	0.6014	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	pl013			
27	B-DM-MB-32	1.7115	2.1377	1.5818	1.0477	0.706	471	1.0055	0.5763	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	pl014			
28	B-DM-MB-33	1.727	2.1848	1.5385	1.0867	0.676	451	1.051	0.4875	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	pl015			

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	A	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1	SpecimenID	InitialDry	PostInoc	PostInno	PostExtra	Impregna	Retention	WoodWe	Remaining	EndWeigh	OilRemain	MCPostIn	RelativeM	OilExtract	OilExtract	OilConten	PetriDish	I-J		
2	B-DM-MB-1	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	plo1	-0.4336		
3	B-DM-MB-10	1.6966	2.1996	1.4532	1.1034	0.681	454	1.0156	0.4376	0.0878	0.64	0.51	0.14	0.35	0.24	0.32	plo2			
4	B-DM-MB-11	1.6703	2.1793	1.4813	1.0812	0.697	465	0.9733	0.508	0.1079	0.73	0.47	0.11	0.4	0.27	0.37	plo3			
5	B-DM-MB-12	1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	plo4			
6	B-DM-MB-13	1.6945	2.12	1.4805	1.0773	0.673	449	1.0215	0.459	0.0558	0.68	0.43	0.13	0.4	0.27	0.37	plo5			
7	B-DM-MB-14	1.6578	2.1165	1.4771	1.086	0.657	438	1.0008	0.4763	0.0852	0.72	0.43	0.11	0.39	0.26	0.36	plo6			
8	B-DM-MB-15	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo7			
9	B-DM-MB-16	1.6697	2.1595	1.4747	1.1022	0.662	441	1.0077	0.467	0.0945	0.71	0.46	0.12	0.37	0.25	0.34	plo8			
10	B-DM-MB-17	1.5506	2.0535	1.4515	1.1092												1	tv1		
11	B-DM-MB-18	1.6728	2.1836	1.4485	1.0881												3	tv2		
12	B-DM-MB-19	1.6619	2.1545	1.466	1.0896												5	tv3		
13	B-DM-MB-2	1.6543	2.0619	1.4686	1.0581												9	tv4		
14	B-DM-MB-20	1.6144	2.085	1.4578	1.0709												6	tv5		
15	B-DM-MB-21	1.71	2.0388	1.6143	1.0524												3	tv6		
16	B-DM-MB-22	1.6338	1.9538	1.5294	1.0313	0.628	419	1.0038	0.5238	0.0233	0.83	0.28	0.08	0.5	0.33	0.48	tv7			
17	B-DM-MB-23	1.7173	2.0337	1.6893	1.0969	0.635	423	1.0823	0.607	0.0146	0.96	0.2	0.02	0.59	0.35	0.54	tv8			
18	B-DM-MB-24	1.7285	2.0478	1.6259	1.0439	0.702	468	1.0265	0.5994	0.0174	0.85	0.26	0.06	0.58	0.36	0.56	plo9			
19	B-DM-MB-25	1.7293	2.0841	1.5667	1.0764	0.676	451	1.0533	0.5134	0.0231	0.76	0.33	0.09	0.49	0.31	0.46	plo10			
20	B-DM-MB-26	1.7137	2.1654	1.56	1.0919	0.674	449	1.0397	0.5203	0.0522	0.77	0.39	0.09	0.47	0.3	0.43	tv9			
21	B-DM-MB-27	1.5851	1.9546	1.4585	0.9877	0.635	423	0.9501	0.5084	0.0376	0.8	0.34	0.08	0.47	0.32	0.48	tv10			
22	B-DM-MB-28	1.6101	2.0313	1.4697	1.0436	0.602	401	1.0081	0.4616	0.0355	0.77	0.38	0.09	0.43	0.29	0.41	tv11			
23	B-DM-MB-29	1.6792	2.0884	1.5775	1.0798	0.672	448	1.0072	0.5703	0.0726	0.85	0.32	0.06	0.5	0.32	0.46	tv12			
24	B-DM-MB-3	1.6162	2.0028	1.4669	1.1078	0.632	421	0.9842	0.4827	0.1236	0.76	0.37	0.09	0.36	0.24	0.32	plo11			
25	B-DM-MB-30	1.6243	2.0613	1.5395	1.0468	0.614	409	1.0103	0.5292	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	plo12			
26	B-DM-MB-31	1.7029	2.1486	1.5973	1.0518	0.707	471	0.9959	0.6014	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	plo13			
27	B-DM-MB-32	1.7115	2.1377	1.5818	1.0477	0.706	471	1.0055	0.5763	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	plo14			
28	B-DM-MB-33	1.727	2.1848	1.5385	1.0867	0.676	451	1.051	0.4875	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	plo15			

Move the mouse to the right bottom corner of Y2 and a black plus (+) sign will appear. Double click it.

Sheet3OOTFungi1MS_11112017_v1_r0 (1)legend

Ready

24

OOTFungi1MS_11112017_v1_r0 (1)

	A	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1	SpecimenID	InitialDryWt	PostInocWt	PostInocWt	PostExtractionWt	ImpregnationWt	RetentionWt	WoodWeight	RemainingWt	EndWeight	OilRemainingWt	MCPostLoss	RelativeMoisture	OilExtractedWt	OilExtractedWt	OilContent	PetriDishWt	I-J	I-K	
2	B-DM-MB-1	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	pl01	-0.4336	=I2-K2	
3	B-DM-MB-10	1.6966	2.1996	1.4532	1.1034	0.681	454	1.0156	0.4376	0.0878	0.64	0.51	0.14	0.35	0.24	0.32	pl02	-0.503		
4	B-DM-MB-11	1.6703	2.1793	1.4813	1.0812	0.697	465	0.9733	0.508	0.1079	0.73	0.47	0.11	0.4	0.27	0.37	pl03	-0.509		
5	B-DM-MB-12	1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	pl04	-0.4334		
6	B-DM-MB-13	1.6945	2.12	1.4805	1.0773	0.673	449	1.0215	0.459	0.0558	0.68	0.43	0.13	0.4	0.27	0.37	pl05	-0.4255		
7	B-DM-MB-14	1.6578	2.1165	1.4771	1.086	0.657	438	1.0	But if we have many similar formulas this is a lot of unnecessary typing...									4587		
8	B-DM-MB-15	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0										1136		
9	B-DM-MB-16	1.6697	2.1595	1.4747	1.1022	0.662	441	1.0										4898		
10	B-DM-MB-17	1.5506	2.0535	1.4515	1.1092	0.635	423	0.9										5029		
11	B-DM-MB-18	1.6728	2.1836	1.4485	1.0881	0.677	451	0.9										5108		
12	B-DM-MB-19	1.6619	2.1545	1.466	1.0896	0.67	447	0.9										4926		
13	B-DM-MB-2	1.6543	2.0619	1.4686	1.0581	0.702	468	0.9523	0.5163	0.1058	0.74	0.4	0.11	0.41	0.28	0.39	tv4	-0.4076		
14	B-DM-MB-20	1.6144	2.085	1.4578	1.0709	0.636	424	0.9784	0.4794	0.0925	0.75	0.43	0.1	0.39	0.27	0.36	tv5	-0.4706		
15	B-DM-MB-21	1.71	2.0388	1.6143	1.0524	0.674	449	1.036	0.5783	0.0164	0.86	0.26	0.06	0.56	0.35	0.53	tv6	-0.3288		
16	B-DM-MB-22	1.6338	1.9538	1.5294	1.0313	0.628	419	1.0058	0.5236	0.0255	0.83	0.28	0.06	0.5	0.33	0.48	tv7	-0.32		
17	B-DM-MB-23	1.7173	2.0337	1.6893	1.0969	0.635	423	1.0823	0.607	0.0146	0.96	0.2	0.02	0.59	0.35	0.54	tv8	-0.3164		
18	B-DM-MB-24	1.7285	2.0478	1.6259	1.0439	0.702	468	1.0265	0.5994	0.0174	0.85	0.26	0.06	0.58	0.36	0.56	pl09	-0.3193		
19	B-DM-MB-25	1.7293	2.0841	1.5667	1.0764	0.676	451	1.0533	0.5134	0.0231	0.76	0.33	0.09	0.49	0.31	0.46	pl010	-0.3548		
20	B-DM-MB-26	1.7137	2.1654	1.56	1.0919	0.674	449	1.0397	0.5203	0.0522	0.77	0.39	0.09	0.47	0.3	0.43	tv9	-0.4517		
21	B-DM-MB-27	1.5851	1.9546	1.4585	0.9877	0.635	423	0.9501	0.5084	0.0376	0.8	0.34	0.08	0.47	0.32	0.48	tv10	-0.3695		
22	B-DM-MB-28	1.6101	2.0313	1.4697	1.0436	0.602	401	1.0081	0.4616	0.0355	0.77	0.38	0.09	0.43	0.29	0.41	tv11	-0.4212		
23	B-DM-MB-29	1.6792	2.0884	1.5775	1.0798	0.672	448	1.0072	0.5703	0.0726	0.85	0.32	0.06	0.5	0.32	0.46	tv12	-0.4092		
24	B-DM-MB-3	1.6162	2.0028	1.4669	1.1078	0.632	421	0.9842	0.4827	0.1236	0.76	0.37	0.09	0.36	0.24	0.32	pl011	-0.3866		
25	B-DM-MB-30	1.6243	2.0613	1.5395	1.0468	0.614	409	1.0103	0.5292	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	pl012	-0.437		
26	B-DM-MB-31	1.7029	2.1486	1.5973	1.0518	0.707	471	0.9959	0.6014	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	pl013	-0.4457		
27	B-DM-MB-32	1.7115	2.1377	1.5818	1.0477	0.706	471	1.0055	0.5763	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	pl014	-0.4262		
28	B-DM-MB-33	1.727	2.1848	1.5385	1.0867	0.676	451	1.051	0.4875	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	pl015	-0.4578		

	A	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1	SpecimenID	InitialDryM	PostInoc	PostInno	PostExtra	Impregnat	Retention	WoodWe	Remaining	EndWeigh	OilRemain	MCPostIn	RelativeM	OilExtract	OilExtract	OilConten	PetriDish	I-J		
2	B-DM-MB-1	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	plo1	=I2-J2		
3	B-DM-MB-10	1.6966	2.1996	1.4532	1.1034	0.681	454	1.0156	0.4376	0.0878	0.64	0.51	0.14	0.35	0.24	0.32	plo2	-0.503		
4	B-DM-MB-11	1.6703	2.1793	1.4813	1.0812	0.697	465	0.9733	0.508	0.1079	0.73	0.47	0.11	0.4	0.27	0.37	plo3	-0.509		
5	B-DM-MB-12	1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	plo4	-0.4334		
6	B-DM-MB-13	1.6732	2.0884	1.5775	1.0738	0.672	448	1.0072	0.5785	0.0728	0.83	0.32	0.08	0.3	0.32	0.48	plo12	0.4255		
7	B-DM-MB-14	1.6162	2.0028	1.4669	1.1078	0.632	421	0.9842	0.4827	0.1236	0.76	0.37	0.09	0.36	0.24	0.32	plo11	0.4587		
8	B-DM-MB-25	1.6243	2.0613	1.5395	1.0468	0.614	409	1.0103	0.5292	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	plo12	0.1136		
9	B-DM-MB-30	1.7029	2.1486	1.5973	1.0518	0.707	471	0.9959	0.6014	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	plo13	0.4898		
10	B-DM-MB-31	1.7115	2.1377	1.5818	1.0477	0.706	471	1.0055	0.5763	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	plo14	0.5029		
11	B-DM-MB-32	1.727	2.1848	1.5385	1.0867	0.676	451	1.051	0.4875	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	plo15	0.5108		
12	B-DM-MB-33																	0.4926		
13																		0.4076		
14																		0.4706		
15																		0.3288		
16																		-0.32		
17																		0.3164		
18																		0.3193		
19																		0.3548		
20																		0.4517		
21																		0.3695		
22																		0.4212		
23	B-DM-MB-29	1.6732	2.0884	1.5775	1.0738	0.672	448	1.0072	0.5785	0.0728	0.83	0.32	0.08	0.3	0.32	0.48	plo12	0.4092		
24	B-DM-MB-3	1.6162	2.0028	1.4669	1.1078	0.632	421	0.9842	0.4827	0.1236	0.76	0.37	0.09	0.36	0.24	0.32	plo11	-0.3866		
25	B-DM-MB-30	1.6243	2.0613	1.5395	1.0468	0.614	409	1.0103	0.5292	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	plo12	-0.437		
26	B-DM-MB-31	1.7029	2.1486	1.5973	1.0518	0.707	471	0.9959	0.6014	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	plo13	-0.4457		
27	B-DM-MB-32	1.7115	2.1377	1.5818	1.0477	0.706	471	1.0055	0.5763	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	plo14	-0.4262		
28	B-DM-MB-33	1.727	2.1848	1.5385	1.0867	0.676	451	1.051	0.4875	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	plo15	-0.4578		

Instead let's just add a \$ sign to the first formula. That's called relative referencing.

The \$ sign fixes column I so if we copy the formula to column Z it will still be referencing column I, i.e. =\$I2-K2.

Without the \$ sign the forumula would change to =J2-K2.

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	A	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1	SpecimenID	InitialDryM	PostInoc	PostInno	PostExtra	Impregnat	Retention	WoodWe	Remainin	EndWeigh	OilRemain	MCPostIn	RelativeM	OilExtract	OilExtract	OilConten	PetriDish	I-J		
2	B-DM-MB-1	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	plo1	-0.4336		
3	B-DM-MB-10	1.6966	2.1996	1.4532	1.1034	0.681	454	1.0156	0.4376	0.0878	0.64	0.51	0.14	0.35	0.24	0.32	plo2	-0.503		
4	B-DM-MB-11	1.6703	2.1793	1.4813	1.0812	0.697	465	0.9733	0.508	0.1079	0.73	0.47	0.11	0.4	0.27	0.37	plo3	-0.509		
5	B-DM-MB-12	1.6715	2.1049	1.5153	1.1111	0.654	436	1.0175	0.4877	0.0936	0.76	0.38	0.09	0.4	0.27	0.36	plo4	-0.4334		
6	B-DM-MB-13	1.6945	2.12	1.48												0.37	plo5	-0.4255		
7	B-DM-MB-14	1.6578	2.1165	1.47												0.36	plo6	-0.4587		
8	B-DM-MB-15	1.6721	1.7857	1.33												0.13	plo7	-0.1136		
9	B-DM-MB-16	1.6697	2.1595	1.47												0.34	plo8	-0.4898		
10	B-DM-MB-17	1.5506	2.0535	1.49												0.31	tv1	-0.5029		
11	B-DM-MB-18	1.6728	2.1836	1.44												0.33	tv2	-0.5108		
12	B-DM-MB-19	1.6619	2.1545	1.4												0.35	tv3	-0.4926		
13	B-DM-MB-2	1.6543	2.0619	1.4686	1.0581	0.702	468	0.9523	0.5163	0.1058	0.74	0.4	0.11	0.41	0.28	0.39	tv4	-0.4076		
14	B-DM-MB-20	1.6144	2.085	1.4578	1.0709	0.636	424	0.9784	0.4794	0.0925	0.75	0.43	0.1	0.39	0.27	0.36	tv5	-0.4706		
15	B-DM-MB-21	1.71	2.0388	1.6143	1.0524	0.674	449	1.036	0.5783	0.0164	0.86	0.26	0.06	0.56	0.35	0.53	tv6	-0.3288		
16	B-DM-MB-22	1.6338	1.9538	1.5294	1.0313	0.628	419	1.0058	0.5236	0.0255	0.83	0.28	0.06	0.5	0.33	0.48	tv7	-0.32		
17	B-DM-MB-23	1.7173	2.0337	1.6893	1.0969	0.635	423	1.0823	0.607	0.0146	0.96	0.2	0.02	0.59	0.35	0.54	tv8	-0.3164		
18	B-DM-MB-24	1.7285	2.0478	1.6259	1.0439	0.702	468	1.0265	0.5994	0.0174	0.85	0.26	0.06	0.58	0.36	0.56	plo9	-0.3193		
19	B-DM-MB-25	1.7293	2.0841	1.5667	1.0764	0.676	451	1.0533	0.5134	0.0231	0.76	0.33	0.09	0.49	0.31	0.46	plo10	-0.3548		
20	B-DM-MB-26	1.7137	2.1654	1.56	1.0919	0.674	449	1.0397	0.5203	0.0522	0.77	0.39	0.09	0.47	0.3	0.43	tv9	-0.4517		
21	B-DM-MB-27	1.5851	1.9546	1.4585	0.9877	0.635	423	0.9501	0.5084	0.0376	0.8	0.34	0.08	0.47	0.32	0.48	tv10	-0.3695		
22	B-DM-MB-28	1.6101	2.0313	1.4697	1.0436	0.602	401	1.0081	0.4616	0.0355	0.77	0.38	0.09	0.43	0.29	0.41	tv11	-0.4212		
23	B-DM-MB-29	1.6792	2.0884	1.5775	1.0798	0.672	448	1.0072	0.5703	0.0726	0.85	0.32	0.06	0.5	0.32	0.46	tv12	-0.4092		
24	B-DM-MB-3	1.6162	2.0028	1.4669	1.1078	0.632	421	0.9842	0.4827	0.1236	0.76	0.37	0.09	0.36	0.24	0.32	plo11	-0.3866		
25	B-DM-MB-30	1.6243	2.0613	1.5395	1.0468	0.614	409	1.0103	0.5292	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	plo12	-0.437		
26	B-DM-MB-31	1.7029	2.1486	1.5973	1.0518	0.707	471	0.9959	0.6014	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	plo13	-0.4457		
27	B-DM-MB-32	1.7115	2.1377	1.5818	1.0477	0.706	471	1.0055	0.5763	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	plo14	-0.4262		
28	B-DM-MB-33	1.727	2.1848	1.5385	1.0867	0.676	451	1.051	0.4875	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	plo15	-0.4578		

OOTFungi1MS_11112017_v1_r0 (1)

Average: -0.368351823Count: 384Max: 0.2759Sum: -141.4471

190%

We update the column Y and the calculations with \$ are the same as without \$...

	A	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----

But the added value is that now we can just copy the formula from column Y to column Z.

AutoSave ☐ Off

PEARSON \times \checkmark f_x $=\$I2-L2$

	A	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	
1	SpecimenID	InitialDryWt	PostInocWt	PostInocWt	PostExtractWt	ImpregnantWt	RetentionWt	WoodWeight	RemainingWt	EndWeight	OilRemainingWt	MCPostLossWt	RelativeMoisture	OilExtractWt	OilExtractWt	OilContent	PetriDishWt	I-J	I-K	I-L	
2	B-DM-MB-1	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	pl01	-0.4336	0.176	=I2-L2	
3	B-DM-MB-10	1.6966	2.1996	1.4532	1.1034	0.681	454	1.0156	0.4376	0.0878	0.64	0.51	0.14	0.35	0.24	0.32	pl02	-0.503	0.2434	0.5932	
4	B-DM-MB-11	1.6703	2.1793	1.4813	1.0812	0.697	465	0.9733	0.508	0.1079	0.73	0.47	0.11	0.4	0.27	0.37	pl03	-0.509	0.189	0.5891	
5	B-DM-MB-12	1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	pl04	-0.4334	0.1563	0.5604	
6	B-DM-MB-13	1.6945	2.12	1.4805	1.0773	0.673	449	1.0215	0.459	0.0558	0.68	0.43	0.13	0.4	0.27	0.37	pl05	-0.4255	0.214	0.6172	
7	B-DM-MB-14	1.6578	2.1165	1.4771	1.086	0.657	438	1.0008	0.4763	0.0852	0.72	0.43	0.11	0.39	0.26	0.36	pl06	-0.4587	0.1807	0.5718	
8	B-DM-MB-15	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	pl07	-0.1136	0.3412	0.495	
9	B-DM-MB-16	1.6697	2.1595	1.4747	1.1022	0.662	441	1.0077	0.467	0.0945	0.71	0.46	0.12	0.37	0.25	0.34	pl08	-0.4898	0.195	0.5675	
10	B-DM-MB-17	1.5506	2.0535	1.4515	1.1092	0.635	423	0.9156	0.5359	0.1936	0.84	0.41	0.06	0.34	0.24	0.31	tv1	-0.5029	0.0991	0.4414	
11	B-DM-MB-18	1.6728	2.1836	1.4485	1.0881	0.677	451	0.9958	0.4527	0.0923	0.67	0.51	0.13	0.36	0.25	0.33	tv2	-0.5108	0.2243	0.5847	
12	B-DM-MB-19	1.6619	2.1545	1.466	1.0896	0.67	447	0.9919	0.4741	0.0977	0.71	0.47	0.12	0.38	0.26	0.35	tv3	-0.4926	0.1959	0.5723	
13	B-DM-MB-2	1.6543	2.0619	1.4686	1.0581	0.702	468	0.9523	0.5163	0.1058	0.74	0.4	0.11	0.41	0.28	0.39	tv4	-0.4076	0.1857	0.5962	
14	B-DM-MB-20	1.6144	2.085	1.4578	1.0709	0.636	424	0.9784	0.4794	0.0925	0.75	0.43	0.1	0.39	0.27	0.36	tv5	-0.4706	0.1566	0.5435	
15	B-DM-MB-21	1.71	2.0388	1.6143	1.0524	0.674	449	1.036	0.5783	0.0164	0.86	0.26	0.06	0.56	0.35	0.53	tv6	-0.3288	0.0957	0.6576	
16	B-DM-MB-22	1.6338	1.9538	1.5294	1.0313	0.628	419	1.0058	0.5236	0.0255	0.83	0.28	0.06	0.5	0.33	0.48	tv7	-0.32	0.1044	0.6025	
17	B-DM-MB-23	1.7173	2.0337	1.6893	1.0969	0.635	423	1.0823	0.607	0.0146	0.96	0.2	0.02	0.59	0.35	0.54	tv8	-0.3164	0.028	0.6204	
18	B-DM-MB-24	1.7285	2.0478	1.6259	1.0439	0.702	468	1.0265	0.5994	0.0174	0.85	0.26	0.06	0.58	0.36	0.56	pl09	-0.3193	0.1026	0.6846	
19	B-DM-MB-25	1.7293	2.0841	1.5667	1.0764	0.676	451	1.0533	0.5134	0.0231	0.76	0.33	0.09	0.49	0.31	0.46	pl010	-0.3548	0.1626	0.6529	
20	B-DM-MB-26	1.7137	2.1654	1.56	1.0919	0.674	449	1.0397	0.5203	0.0522	0.77	0.39	0.09	0.47	0.3	0.43	tv9	-0.4517	0.1537	0.6218	
21	B-DM-MB-27	1.5851	1.9546	1.4585	0.9877	0.635	423	0.9501	0.5084	0.0376	0.8	0.34	0.08	0.47	0.32	0.48	tv10	-0.3695	0.1266	0.5974	
22	B-DM-MB-28	1.6101	2.0313	1.4697	1.0436	0.602	401	1.0081	0.4616	0.0355	0.77	0.38	0.09	0.43	0.29	0.41	tv11	-0.4212	0.1404	0.5665	
23	B-DM-MB-29	1.6792	2.0884	1.5775	1.0798	0.672	448	1.0072	0.5703	And so on and so on...									-0.4092	0.1017	0.5994
24	B-DM-MB-3	1.6162	2.0028	1.4669	1.1078	0.632	421	0.9842	0.4827										-0.3866	0.1493	0.5084
25	B-DM-MB-30	1.6243	2.0613	1.5395	1.0468	0.614	409	1.0103	0.5292										-0.437	0.0848	0.5775
26	B-DM-MB-31	1.7029	2.1486	1.5973	1.0518	0.707	471	0.9959	0.6014	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	pl013	-0.4457	0.1056	0.6511	
27	B-DM-MB-32	1.7115	2.1377	1.5818	1.0477	0.706	471	1.0055	0.5763	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	pl014	-0.4262	0.1297	0.6638	
28	B-DM-MB-33	1.727	2.1848	1.5385	1.0867	0.676	451	1.051	0.4875	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	pl015	-0.4578	0.1885	0.6403	

Now let's say we want to create the copy of values in column AA.

If we just use simple copy paste the values change because it coppies the formula and not the values.

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Cells

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Ideas

Sensitivity

Ideas

Sensitivity

ShareComments

AutoSave

AB1

	A	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
1	SpecimenID	EndWeight	OilRemaining	MCPostInc	RelativeM	OilExtract	OilExtract	OilContent	PetriDish	I-J	I-K	I-L								
2	B-DM-MB-1	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	plo1	-0.4336	0.176	0.5573								
3	B-DM-MB-10	0.0878	0.64	0.51	0.14	0.35	0.24	0.32	plo2	-0.503	0.2434	0.5932								
4	B-DM-MB-11	0.1079	0.73	0.47	0.11	0.4	0.27	0.37	plo3	-0.509	0.189	0.5891								
5	B-DM-MB-12	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	plo4	-0.4334	0.1563	0.5604								
6	B-DM-MB-13	0.0558	0.68	0.43	0.13	0.4	0.27	0.37	plo5	-0.4255	0.214	0.6172								
7	B-DM-MB-14	0.0852	0.72	0.43	0.11	0.39	0.26	0.36	plo6	-0.4587	0.1807	0.5718								
8	B-DM-MB-15	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo7	-0.1136	0.3412	0.495								
9	B-DM-MB-16	0.0945	0.71	0.46	0.12	0.37	0.25	0.34	plo8	-0.4898	0.195	0.5675								
10	B-DM-MB-17	0.1936	0.84	0.41	0.06	0.34	0.24	0.31	tv1	-0.5029	0.0991	0.4414								
11	B-DM-MB-18	0.0923	0.67	0.51	0.13	0.36	0.25	0.33	tv2	-0.5108	0.2243	0.5847								
12	B-DM-MB-19	0.0977	0.71	0.47	0.12	0.38	0.26	0.35	tv3	-0.4926	0.1959	0.5723								
13	B-DM-MB-2	0.1058	0.74	0.4	0.11	0.41	0.28	0.39	tv4	-0.4076	0.1857	0.5962								
14	B-DM-MB-20	0.0925	0.75	0.43	0.1	0.39	0.27	0.36	tv5	-0.4706	0.1566	0.5435								
15	B-DM-MB-21	0.0164	0.86	0.26	0.06	0.56	0.35	0.53	tv6	-0.3288	0.0957	0.6576								
16	B-DM-MB-22	0.0255	0.83	0.28	0.06	0.5	0.33	0.48	tv7	-0.32	0.1044	0.6025								
17	B-DM-MB-23	0.0146	0.96	0.2	0.02	0.59	0.35	0.54	tv8	-0.3164	0.028	0.6204								
18	B-DM-MB-24	0.0174	0.85	0.26	0.06	0.58	0.36	0.56	plo9	-0.3193	0.1026	0.6846								
19	B-DM-MB-25	0.0231	0.76	0.33	0.09	0.49	0.31	0.46	plo10	-0.3548	0.1626	0.6529								
20	B-DM-MB-26	0.0522	0.77	0.39	0.09	0.47	0.3	0.43	tv9	-0.4517	0.1537	0.6218								
21	B-DM-MB-27	0.0376	0.8	0.34	0.08	0.47	0.32	0.48	tv10	-0.3695	0.1266	0.5974								
22	B-DM-MB-28	0.0355	0.77	0.38	0.09	0.43	0.29	0.41	tv11	-0.4212	0.1404	0.5665								
23	B-DM-MB-29	0.0726	0.85	0.32	0.06	0.5	0.32	0.46	tv12	-0.4092	0.1017	0.5994								
24	B-DM-MB-3	0.1236	0.76	0.37	0.09	0.36	0.24	0.32	plo11	-0.3866	0.1493	0.5084								
25	B-DM-MB-30	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	plo12	-0.437	0.0848	0.5775								
26	B-DM-MB-31	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	plo13	-0.4457	0.1056	0.6511								
27	B-DM-MB-32	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	plo14	-0.4262	0.1297	0.6638								
28	B-DM-MB-33	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	plo15	-0.4578	0.1885	0.6403								

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Select destination and press ENTER or choose Paste

Paste Special

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Formulas

Values

Formats

Comments and Notes

Validation

All using Source theme

All except borders

Column widths

Formulas and number formats

Values and number formats

All merging conditional formats

None

Add

Subtract

Multiply

Divide

Skip blanks

Transpose

Paste Link

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Instead we use Paste Special and select Values

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Next topic: Conditional Formatting

OOTFungi1MS_11112017_v1_r0 (1) - Excel

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InsertDeleteFormat

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AutoSumFill

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Sort & FilterFind & Select

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Sensitivity

Sensitivity

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AA1

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I-L

	A	Q	R	S	T	U			Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
1	SpecimenID	EndWeight	OilRemaining	MCPostInc	RelativeM	OilExtract			J	I-K	I-L								
2	B-DM-MB-1	0.0907	0.73	0.41	0.1	0.38			-0.4336	0.176	0.5573								
3	B-DM-MB-10	0.0878	0.64	0.51	0.14	0.35			-0.503	0.2434	0.5932								
4	B-DM-MB-11	0.1079	0.73	0.47	0.11	0.4			-0.509	0.189	0.5891								
5	B-DM-MB-12	0.0936	0.76	0.39	0.09	0.4			-0.4334	0.1563	0.5604								
6	B-DM-MB-13	0.0558	0.68	0.43	0.13	0.4	0.27		-0.4255	0.214	0.6172								
7	B-DM-MB-14	0.0852	0.72	0.43	0.11	0.39	0.26	0.36	-0.4587	0.1807	0.5718								
8	B-DM-MB-15	0.173	0.49	0.34	0.2	0.15	0.12	0.13	-0.1136	0.3412	0.495								
9	B-DM-MB-16	0.0945	0.71	0.46	0.12	0.37	0.25	0.34	-0.4898	0.195	0.5675								
10	B-DM-MB-17	0.1936	0.84	0.41	0.06	0.34	0.24	0.31	-0.5029	0.0991	0.4414								
11	B-DM-MB-18	0.0923	0.67	0.51	0.13	0.36	0.25	0.33	-0.5108	0.2243	0.5847								
12	B-DM-MB-19	0.0977	0.71	0.47	0.12	0.38	0.26	0.35	-0.4926	0.1959	0.5723								
13	B-DM-MB-2	0.1058	0.74	0.4	0.11	0.41	0.28	0.39	-0.4076	0.1857	0.5962								
14	B-DM-MB-20	0.0925	0.75	0.43	0.1	0.39	0.27	0.36	-0.4706	0.1566	0.5435								
15	B-DM-MB-21	0.0164	0.86	0.26	0.06	0.56	0.35	0.53	-0.3288	0.0957	0.6576								
16	B-DM-MB-22	0.0255	0.83	0.28	0.06	0.5	0.33	0.48	-0.32	0.1044	0.6025								
17	B-DM-MB-23	0.0146	0.96	0.2	0.02	0.59	0.35	0.54	-0.3164	0.028	0.6204								
18	B-DM-MB-24	0.0174	0.85	0.26	0.06	0.58	0.36	0.56	-0.3193	0.1026	0.6846								
19	B-DM-MB-25	0.0231	0.76	0.33	0.09	0.49	0.31	0.46	-0.3548	0.1626	0.6529								
20	B-DM-MB-26	0.0522	0.77	0.39	0.09	0.47	0.3	0.43	-0.4517	0.1537	0.6218								
21	B-DM-MB-27	0.0376	0.8	0.34	0.08	0.47	0.32	0.48	-0.3695	0.1266	0.5974								
22	B-DM-MB-28	0.0355	0.77	0.38	0.09	0.43	0.29	0.41	-0.4212	0.1404	0.5665								
23	B-DM-MB-29	0.0726	0.85	0.32	0.06	0.5	0.32	0.46	-0.4092	0.1017	0.5994								
24	B-DM-MB-3	0.1236	0.76	0.37	0.09	0.36	0.24	0.32	-0.3866	0.1493	0.5084								
25	B-DM-MB-30	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	-0.437	0.0848	0.5775								
26	B-DM-MB-31	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	-0.4457	0.1056	0.6511								
27	B-DM-MB-32	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	-0.4262	0.1297	0.6638								
28	B-DM-MB-33	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	-0.4578	0.1885	0.6403								

Greater Than...

Less Than...

Between...

Equal To...

Text that Contains...

A Date Occurring...

Duplicate Values...

More Rules...

Let's say we want to

highlight all differences with

absolute value below 0.5

OOTFungi1MS_11112017_v1_r0 (1)

Average: 0.200640191Count: 1155Max: 1.0217Sum: 231.1375

Ready

34

OOTFungi1MS_11112017_v1_r0 (1) - Excel

FileHomeInsertPage LayoutFormulasDataReviewViewHelp

CutCopyFormat Painter

Clipboard

Font

Alignment

Number

Conditional FormattingFormat as Table

NormalBadGoodNeutralCalculationCheck CellExplanatory...Followed Hy...HyperlinkInput

InsertDeleteFormat

AutoSumFillClear

Sort & FilterFind & Select

Ideas

Sensitivity

ShareComments

AutoSave

AA1

I-L

	A	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
1	SpecimenID	EndWeight	OilRemain	MCPostIn	RelativeM	OilExtract	OilExtract	OilConten	PetriDish	I-J	I-K	I-L								
2	B-DM-MB-1	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	pl01	-0.4336	0.176	0.5573								
3	B-DM-MB-10	0.0878	0.64	0.51	0.14	0.35	0.24	0.32	pl02	-0.503	0.2434	0.5932								
4	B-DM-MB-11	0.1079	0.73	0.47	0.11	0.4	0.27	0.37	pl03	-0.509	0.189	0.5891								
5	B-DM-MB-12	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	pl04	-0.4334	0.1563	0.5604								
6	B-DM-MB-13	0.0558	0.68	0.43	0.13	0.4	0.27	0.37	pl05	-0.4255	0.214	0.6172								
7	B-DM-MB-14	0.0852	0.72	0.43	0.11	0.39	0.26	0.36	pl06	-0.4587	0.1807	0.5718								
8	B-DM-MB-15	0.173	0.49	0.34	0.2	0.15	0.12	0.13	pl07	-0.1136	0.3412	0.495								
9	B-DM-MB-16	0.0945	0.71	0.46	0.12	0.37	0.25	0.34	pl08	-0.4898	0.195	0.5675								
10	B-DM-MB-17	0.1936	0.84	0.41	0.06	0.34	0.24	0.31	tv1	-0.5029	0.0991	0.4414								
11	B-DM-MB-18	0.0923	0.67	0.51	0.13	0.36	0.25	0.33	tv2	-0.5108	0.2243	0.5847								
12	B-DM-MB-19	0.0977	0.71	0.47	0.12	0.38	0.26	0.35	tv3	-0.4926	0.1959	0.5723								
13	B-DM-MB-2	0.1058	0.74					0.39	tv4	-0.4076	0.1857	0.5962								
14	B-DM-MB-20	0.0925	0.75					0.36	tv5	-0.4706	0.1566	0.5435								
15	B-DM-MB-21	0.0164	0.86					0.53	tv6	-0.3288	0.0957	0.6576								
16	B-DM-MB-22	0.0255	0.83	0.28	0.06	0.5	0.33	0.48	tv7	-0.32	0.1044	0.6025								
17	B-DM-MB-23	0.0146	0.96	0.2	0.02	0.59	0.35	0.54	tv8	-0.3164	0.028	0.6204								
18	B-DM-MB-24	0.0174	0.85	0.26	0.06	0.58	0.36	0.56	pl09	-0.3193	0.1026	0.6846								
19	B-DM-MB-25	0.0231	0.76	0.33	0.09	0.49	0.31	0.46	pl010	-0.3548	0.1626	0.6529								
20	B-DM-MB-26	0.0522	0.77	0.39	0.09	0.47	0.3	0.43	tv9	-0.4517	0.1537	0.6218								
21	B-DM-MB-27	0.0376	0.8	0.34	0.08	0.47	0.32	0.48	tv10	-0.3695	0.1266	0.5974								
22	B-DM-MB-28	0.0355	0.77	0.38	0.09	0.43	0.29	0.41	tv11	-0.4212	0.1404	0.5665								
23	B-DM-MB-29	0.0726	0.85	0.32	0.06	0.5	0.32	0.46	tv12	-0.4092	0.1017	0.5994								
24	B-DM-MB-3	0.1236	0.76	0.37	0.09	0.36	0.24	0.32	pl011	-0.3866	0.1493	0.5084								
25	B-DM-MB-30	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	pl012	-0.437	0.0848	0.5775								
26	B-DM-MB-31	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	pl013	-0.4457	0.1056	0.6511								
27	B-DM-MB-32	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	pl014	-0.4262	0.1297	0.6638								
28	B-DM-MB-33	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	pl015	-0.4578	0.1885	0.6403								

Between

Format cells that are BETWEEN:

-0.5 and 0.5 with Light Red Fill with Dark Red Text

OKCancel

We select Between and enter values...

OOTFungi1MS_11112017_v1_r0 (1)

Average: 0.200640191Count: 1155Max: 1.0217Sum: 231.1375

35

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
1	SpecimenID	Species	Treatme	Number	StartDate	EndDate	Duration	Inoculan	InitialDry	PostInoc	PostInnc	PostExtr	Impregn	Retentio	WoodW	Remaini	EndWeig	OilRema	MCPostl	Relative	OilExtrac	OilExtrac	OilConte	PetriDisl	I-J	I-K	I-L
2	B-DM-MB-1	B	DM	1	13. 7. 2016	2. 11. 2016	16	pl	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	plo1	-0.4336	0.176	
3	B-DM-MB-10	B	DM	10	13. 7. 2016	2. 11. 2016	16	tv	1.6966	2.1996	1.4532	1.1034	0.681	454	1.0156	0.4376	0.0878	0.64	0.51	0.14	0.35	0.24	0.32	plo2	-0.503	0.2434	
4	B-DM-MB-11	B	DM	11	13. 7. 2016	2. 11. 2016	16	tv	1.6703	2.1793	1.4813	1.0812	0.697	465	0.9733	0.508	0.1079	0.73	0.47	0.11	0.4	0.27	0.37	plo3	-0.509	0.189	
5	B-DM-MB-12	B	DM	12	13. 7. 2016	2. 11. 2016	16	tv	1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	plo4	-0.4334	0.1563	
6	B-DM-MB-13	B	DM	13	13. 7. 2016	2. 11. 2016	16	tv	1.6945	2.12	1.4805	1.0773	0.673	449	1.0215	0.459	0.0558	0.68	0.43	0.13	0.4	0.27	0.37	plo5	-0.4255	0.214	
7	B-DM-MB-14	B	DM	14	13. 7. 2016	2. 11. 2016	16	pl	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.26	0.36	plo6	-0.4587	0.1807	
8	B-DM-MB-15	B	DM	15	13. 7. 2016	2. 11. 2016	16	pl	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.12	0.13	plo7	-0.1136	0.3412	
9	B-DM-MB-16	B	DM	16	13. 7. 2016	2. 11. 2016	16	pl	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	plo8	-0.4898	0.195	
10	B-DM-MB-17	B	DM	17	28. 7. 2016	17. 8. 2016	16	pl	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.24	0.31	tv1	-0.5029	0.0991	
11	B-DM-MB-18	B	DM	18	28. 7. 2016	17. 8. 2016	16	pl	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.33	tv2	-0.5108	0.2243	
12	B-DM-MB-19	B	DM	19	28. 7. 2016	17. 8. 2016	16	pl	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.26	0.35	tv3	-0.4926	0.1959	
13	B-DM-MB-2	B	DM	2	13. 7. 2016	2. 11. 2016	16	pl	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.28	0.39	tv4	-0.4076	0.1857	
14	B-DM-MB-20	B	DM	20	28. 7. 2016	17. 8. 2016	16	pl	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.27	0.36	tv5	-0.4706	0.1566	
15	B-DM-MB-21	B	DM	21	29. 7. 2016	23. 8. 2016	16	pl	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.35	0.53	tv6	-0.3288	0.0957	
16	B-DM-MB-22	B	DM	22	29. 7. 2016	23. 8. 2016	16	pl	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.33	0.48	tv7	-0.32	0.1044	
17	B-DM-MB-23	B	DM	23	29. 7. 2016	23. 8. 2016	16	pl	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.35	0.54	tv8	-0.3164	0.028	
18	B-DM-MB-24	B	DM	24	29. 7. 2016	23. 8. 2016	16	pl	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.36	0.56	plo9	-0.3193	0.1026	
19	B-DM-MB-25	B	DM	25	4. 8. 2016	29. 9. 2016	16	pl	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.31	0.46	plo10	-0.3548	0.1626	
20	B-DM-MB-26	B	DM	26	4. 8. 2016	29. 9. 2016	8	pl	1.7137	2.1654	1.56	1.0919	0.674	449	1.0397	0.5203	0.0522	0.77	0.39	0.09	0.47	0.3	0.43	tv9	-0.4517	0.1537	
21	B-DM-MB-27	B	DM	27	4. 8. 2016	29. 9. 2016	8	pl	1.5851	1.9546	1.4585	0.9877	0.635	423	0.9501	0.5084	0.0376	0.8	0.34	0.08	0.47	0.32	0.48	tv10	-0.3695	0.1266	
22	B-DM-MB-28	B	DM	28	4. 8. 2016	29. 9. 2016	8	pl	1.6101	2.0313	1.4697	1.0436	0.602	401	1.0081	0.4616	0.0355	0.77	0.38	0.09	0.43	0.29	0.41	tv11	-0.4212	0.1404	
23	B-DM-MB-29	B	DM	29	4. 8. 2016	29. 9. 2016	8	pl	1.6792	2.0884	1.5775	1.0798	0.672	448	1.0072	0.5703	0.0726	0.85	0.32	0.06	0.5	0.32	0.46	tv12	-0.4092	0.1017	
24	B-DM-MB-3	B	DM	3	13. 7. 2016	2. 11. 2016	16	pl	1.6162	2.0028	1.4669	1.1078	0.632	421	0.9842	0.4827	0.1236	0.76	0.37	0.09	0.36	0.24	0.32	plo11	-0.3866	0.1493	
25	B-DM-MB-30	B	DM	30	4. 8. 2016	29. 9. 2016	8	pl	1.6243	2.0613	1.5395	1.0468	0.614	409	1.0103	0.5292	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	plo12	-0.437	0.0848	
26	B-DM-MB-31	B	DM	31	4. 8. 2016	29. 9. 2016	8	pl	1.7029	2.1486	1.5973	1.0518	0.707	471	0.9959	0.6014	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	plo13	-0.4457	0.1056	
27	B-DM-MB-32	B	DM	32	4. 8. 2016	29. 9. 2016	8	pl	1.7115	2.1377	1.5818	1.0477	0.706	471	1.0055	0.5763	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	plo14	-0.4262	0.1297	
28	B-DM-MB-33	B	DM	33	4. 8. 2016	29. 9. 2016	8	tv	1.727	2.1848	1.5385	1.0867	0.676	451	1.051	0.4875	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	plo15	-0.4578	0.1885	
29	B-DM-MB-34	B	DM	34	4. 8. 2016	29. 9. 2016	8	tv	1.7166	2.1716	1.5235	1.0824	0.664	443	1.0526	0.4709	0.0298	0.71	0.43	0.11	0.44	0.29	0.41	plo16	-0.455	0.1931	
30	B-DM-MB-35	B	DM	35	4. 8. 2016	29. 9. 2016	8	tv	1.7139	2.1718	1.6178	1.1594	0.607	405	1.1069	0.5109	0.0525	0.84	0.34	0.06	0.46	0.28	0.4	plo17	-0.4579	0.0961	
31	B-DM-MB-36	B	DM	36	4. 8. 2016	29. 9. 2016	8	tv	1.7267	2.1694	1.5205	1.0893	0.685	457	1.0417	0.4788	0.0476	0.7	0.43	0.12	0.43	0.28	0.4	plo18	-0.4427	0.2062	
32	B-DM-MB-37	B	DM	37	4. 8. 2016	29. 9. 2016	8	tv	1.7372	2.1615	1.5698	1.0932	0.687	458	1.0502	0.5196	0.043	0.76	0.38	0.1	0.48	0.3	0.44	plo19	-0.4243	0.1674	
33	B-DM-MB-38	B	DM	38	29. 8. 2016	24. 10. 2016	8	tv	1.723	2.1823	1.5238	1.06	0.696	464	1.027	0.4968	0.033	0.71	0.43	0.12	0.46	0.3	0.44	plo20	-0.4593	0.1992	
34	B-DM-MB-39	B	DM	39	29. 8. 2016	24. 10. 2016	8	tv	1.7253	2.1697	1.5169	1.0794	0.677	451	1.0483	0.4686	0.0311	0.69	0.43	0.12	0.44	0.29	0.41	tv13	-0.4444	0.2084	
35	B-DM-MB-4	B	DM	4	13. 7. 2016	2. 11. 2016	16	pl	1.6965	2.1368	1.4942	1.0685	0.712	475	0.9845	0.5097	0.084	0.72	0.43	0.12	0.43	0.28	0.4	tv14	-0.4403	0.2023	
36	B-DM-MB-40	B	DM	40	29. 8. 2016	24. 10. 2016	8	tv	1.7278	2.1516	1.4563	1.0434	0.714	476	1.0138	0.4425	0.0296	0.62	0.48	0.16	0.41	0.28	0.4	tv15	-0.4238	0.2715	
37	B-DM-MB-5	B	DM	5	13. 7. 2016	2. 11. 2016	16	pl	1.6761	2.0886	1.4999	1.095	0.658	439	1.0181	0.4818	0.0769	0.73	0.39	0.11	0.4	0.27	0.37	tv16	-0.4125	0.1762	

OOTFungi1MS_11112017_v1_r0 (1) - Excel

Ana Slavec

FileHomeInsertPage LayoutFormulasDataReviewViewHelp

CutCopyFormat Painter

Paste

Clipboard

Calibri11A⁺A⁻

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Hyperlink

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Clear

Editing

Ideas

Sensitivity

AutoSave

Undo

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B2

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
1	SpecimenID	Species	Treatme	Number	StartDate	EndDate	Duration	Inoculan	InitialDry	PostInoc	PostInnc	PostExtr	Impregn	Retentio	WoodW	Remainir	EndWeig	OilRema	MCPostl	Relative	OilExtrac	OilExtrac	OilConte	PetriDis	I-J	I-K	I-L
2	B-DM-MB-1				13. 7. 2016	2. 11. 2016	16 pl		1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	plo1	-0.4336	0.176	
3	B-DM-MB-10				13. 7. 2016	2. 11. 2016	16 tv		1.6966	2.1996	1.4532	1.1034	0.681	454	1.0156	0.4376	0.0878	0.64	0.51	0.14	0.35	0.24	0.32	plo2	-0.503	0.2434	
4	B-DM-MB-11				13. 7. 2016	2. 11. 2016	16 tv		1.6703	2.1793	1.4813	1.0812	0.697	465	0.9733	0.508	0.1079	0.73	0.47	0.11	0.4	0.27	0.37	plo3	-0.509	0.189	
5	B-DM-MB-12				13. 7. 2016	2. 11. 2016	16 tv		1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	plo4	-0.4334	0.1563	
6	B-DM-MB-13				13. 7. 2016	2. 11. 2016	16 tv		1.6945	2.12	1.4805	1.0773	0.673	449	1.0215	0.459	0.0558	0.68	0.43	0.13	0.4	0.27	0.37	plo5	-0.4255	0.214	
7	B-DM-MB-14				13. 7. 2016	2. 11. 2016	16 tv		1.6578	2.1165	1.4771	1.086	0.657	438	1.0008	0.4763	0.0852	0.72	0.43	0.11	0.39	0.26	0.36	plo6	-0.4587	0.1807	
8	B-DM-MB-15				13. 7. 2016	2. 11. 2016	16 tv		1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo7	-0.1136	0.3412	
9	B-DM-MB-16				13. 7. 2016	2. 11. 2016	16 tv		1.6697	2.1595	1.4747	1.1022	0.662	441	1.0077	0.467	0.0945	0.71	0.46	0.12	0.37	0.25	0.34	plo8	-0.4898	0.195	
10	B-DM-MB-17				28. 7. 2016	17. 11. 2016	16 pl		1.5506												0.34	0.24	0.31	tv1	-0.5029	0.0991	
11	B-DM-MB-18				28. 7. 2016	17. 11. 2016	16 pl		1.6728												0.36	0.25	0.33	tv2	-0.5108	0.2243	
12	B-DM-MB-19				28. 7. 2016	17. 11. 2016	16 tv		1.6619												0.38	0.26	0.35	tv3	-0.4926	0.1959	
13	B-DM-MB-2				13. 7. 2016	2. 11. 2016	16 pl		1.6543												0.41	0.28	0.39	tv4	-0.4076	0.1857	
14	B-DM-MB-20				28. 7. 2016	17. 11. 2016	16 tv		1.6144												0.39	0.27	0.36	tv5	-0.4706	0.1566	
15	B-DM-MB-21				29. 7. 2016	23. 9. 2016	8 tv		1.71												0.56	0.35	0.53	tv6	-0.3288	0.0957	
16	B-DM-MB-22				29. 7. 2016	23. 9. 2016	8 tv		1.6338	1.9538	1.5294	1.0313	0.628	419	1.0058	0.5236	0.0255	0.83	0.28	0.06	0.5	0.33	0.48	tv7	-0.32	0.1044	
17	B-DM-MB-23				29. 7. 2016	23. 9. 2016	8 pl		1.7173	2.0337	1.6893	1.0969	0.635	423	1.0823	0.607	0.0146	0.96	0.2	0.02	0.59	0.35	0.54	tv8	-0.3164	0.028	
18	B-DM-MB-24				29. 7. 2016	23. 9. 2016	8 pl		1.7285	2.0478	1.6259	1.0439	0.702	468	1.0265	0.5994	0.0174	0.85	0.26	0.06	0.58	0.36	0.56	plo9	-0.3193	0.1026	
19	B-DM-MB-25				4. 8. 2016	29. 9. 2016	8 pl		1.7293	2.0841	1.5667	1.0764	0.676	451	1.0533	0.5134	0.0231	0.76	0.33	0.09	0.49	0.31	0.46	plo10	-0.3548	0.1626	
20	B-DM-MB-26				4. 8. 2016	29. 9. 2016	8 pl		1.7137	2.1654	1.56	1.0919	0.674	449	1.0397	0.5203	0.0522	0.77	0.39	0.09	0.47	0.3	0.43	tv9	-0.4517	0.1537	
21	B-DM-MB-27				4. 8. 2016	29. 9. 2016	8 pl		1.5851	1.9546	1.4585	0.9877	0.635	423	0.9501	0.5084	0.0376	0.8	0.34	0.08	0.47	0.32	0.48	tv10	-0.3695	0.1266	
22	B-DM-MB-28				4. 8. 2016	29. 9. 2016	8 pl		1.6101	2.0313	1.4697	1.0436	0.602	401	1.0081	0.4616	0.0355	0.77	0.38	0.09	0.43	0.29	0.41	tv11	-0.4212	0.1404	
23	B-DM-MB-29				4. 8. 2016	29. 9. 2016	8 pl		1.6792	2.0884	1.5775	1.0798	0.672	448	1.0072	0.5703	0.0726	0.85	0.32	0.06	0.5	0.32	0.46	tv12	-0.4092	0.1017	
24	B-DM-MB-3				13. 7. 2016	2. 11. 2016	16 pl		1.6162	2.0028	1.4669	1.1078	0.632	421	0.9842	0.4827	0.1236	0.76	0.37	0.09	0.36	0.24	0.32	plo11	-0.3866	0.1493	
25	B-DM-MB-30				4. 8. 2016	29. 9. 2016	8 pl		1.6243	2.0613	1.5395	1.0468	0.614	409	1.0103	0.5292	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	plo12	-0.437	0.0848	
26	B-DM-MB-31				4. 8. 2016	29. 9. 2016	8 pl		1.7029	2.1486	1.5973	1.0518	0.707	471	0.9959	0.6014	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	plo13	-0.4457	0.1056	
27	B-DM-MB-32				4. 8. 2016	29. 9. 2016	8 pl		1.7115	2.1377	1.5818	1.0477	0.706	471	1.0055	0.5763	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	plo14	-0.4262	0.1297	
28	B-DM-MB-33				4. 8. 2016	29. 9. 2016	8 tv		1.727	2.1848	1.5385	1.0867	0.676	451	1.051	0.4875	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	plo15	-0.4578	0.1885	
29	B-DM-MB-34				4. 8. 2016	29. 9. 2016	8 tv		1.7166	2.1716	1.5235	1.0824	0.664	443	1.0526	0.4709	0.0298	0.71	0.43	0.11	0.44	0.29	0.41	plo16	-0.455	0.1931	
30	B-DM-MB-35				4. 8. 2016	29. 9. 2016	8 tv		1.7139	2.1718	1.6178	1.1594	0.607	405	1.1069	0.5109	0.0525	0.84	0.34	0.06	0.46	0.28	0.4	plo17	-0.4579	0.0961	
31	B-DM-MB-36				4. 8. 2016	29. 9. 2016	8 tv		1.7267	2.1694	1.5205	1.0893	0.685	457	1.0417	0.4788	0.0476	0.7	0.43	0.12	0.43	0.28	0.4	plo18	-0.4427	0.2062	
32	B-DM-MB-37				4. 8. 2016	29. 9. 2016	8 tv		1.7372	2.1615	1.5698	1.0932	0.687	458	1.0502	0.5196	0.043	0.76	0.38	0.1	0.48	0.3	0.44	plo19	-0.4243	0.1674	
33	B-DM-MB-38				29. 8. 2016	24. 10. 2016	8 tv		1.723	2.1823	1.5238	1.06	0.696	464	1.027	0.4968	0.033	0.71	0.43	0.12	0.46	0.3	0.44	plo20	-0.4593	0.1992	
34	B-DM-MB-39				29. 8. 2016	24. 10. 2016	8 tv		1.7253	2.1697	1.5169	1.0794	0.677	451	1.0483	0.4686	0.0311	0.69	0.43	0.12	0.44	0.29	0.41	tv13	-0.4444	0.2084	
35	B-DM-MB-4				13. 7. 2016	2. 11. 2016	16 pl		1.6965	2.1368	1.4942	1.0685	0.712	475	0.9845	0.5097	0.084	0.72	0.43	0.12	0.43	0.28	0.4	tv14	-0.4403	0.2023	
36	B-DM-MB-40				29. 8. 2016	24. 10. 2016	8 tv		1.7278	2.1516	1.4563	1.0434	0.714	476	1.0138	0.4425	0.0296	0.62	0.48	0.16	0.41	0.28	0.4	tv15	-0.4238	0.2715	
37	B-DM-MB-5				13. 7. 2016	2. 11. 2016	16 pl		1.6761	2.0886	1.4999	1.095	0.658	439	1.0181	0.4818	0.0769	0.73	0.39	0.11	0.4	0.27	0.37	tv16	-0.4125	0.1762	

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We will be using TEXT functions
LEFT, MID, and RIGHT.

With LEFT we can extract a specified number of characters from the left side of a text string.

AutoSave ☐ Off    

MID     =MID(A2;3;2)

1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
2	SpecimenID	Species	Treatme	Number	StartDate	EndDate	Duration	Inoculan	InitialDry	PostInoc	PostInnc	PostExtr	Impregn	Retentio	WoodW	Remaini	EndWeig	OilRema	MCPostl	Relative	OilExtrac	OilExtrac	OilConte	PetriDisk	I-J	I-K	I-
2	B-DM-MB-1	B	3;2)		13. 7. 2016	2. 11. 2016	16 pl		1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	plo1	-0.4336	0.176	
3	B-DM-MB-10	B			13. 7. 2016	2. 11. 2016	16 pl		1.6866	2.1886	1.4533	1.1834	0.684	454	1.0456	0.4376	0.0878	0.64	0.54	0.14	0.35	0.24	0.32	plo2	-0.503	0.2434	
4	B-DM-MB-11	B																			0.4	0.27	0.37	plo3	-0.509	0.189	
5	B-DM-MB-12	B																			0.4	0.27	0.36	plo4	-0.4334	0.1563	
6	B-DM-MB-13	B																			0.4	0.27	0.37	plo5	-0.4255	0.214	
7	B-DM-MB-14	B																			39	0.26	0.36	plo6	-0.4587	0.1807	
8	B-DM-MB-15	B																			15	0.12	0.13	plo7	-0.1136	0.3412	
9	B-DM-MB-16	B																			37	0.25	0.34	plo8	-0.4898	0.195	
10	B-DM-MB-17	B			28. 7. 2016	17. 11. 2016	16 pl		1.5506	2.0535	1.4515	1.1092	0.635	423	0.9156	0.5359	0.1936	0.84	0.41	0.06	0.34	0.24	0.31	tv1	-0.5029	0.0991	
11	B-DM-MB-18	B			28. 7. 2016	17. 11. 2016	16 pl		1.6728	2.1836	1.4485	1.0881	0.677	451	0.9958	0.4527	0.0923	0.67	0.51	0.13	0.36	0.25	0.33	tv2	-0.5108	0.2243	
12	B-DM-MB-19	B			28. 7. 2016	17. 11. 2016	16 pl		1.6649	2.1545	1.466	1.0896	0.67	447	0.9919	0.4741	0.0977	0.71	0.47	0.12	0.38	0.26	0.35	tv3	-0.4926	0.1959	
13	B-DM-MB-2	B			13. 7. 2016	2. 11. 2016	16 pl		1.6619	2.1545	1.4686	1.0581	0.702	468	0.9523	0.5163	0.1058	0.74	0.4	0.11	0.41	0.28	0.39	tv4	-0.4076	0.1857	
14	B-DM-MB-20	B			28. 7. 2016	17. 11. 2016	16 pl		1.6578	2.1545	1.4578	1.0709	0.636	424	0.9784	0.4794	0.0925	0.75	0.43	0.1	0.39	0.27	0.36	tv5	-0.4706	0.1566	
15	B-DM-MB-21	B			29. 8. 2016	24. 10. 2016	8 pl		1.6143	1.0524	1.6143	1.0524	0.674	449	1.036	0.5783	0.0164	0.86	0.26	0.06	0.56	0.35	0.53	tv6	-0.3288	0.0957	
16	B-DM-MB-22	B			29. 8. 2016	24. 10. 2016	8 pl		1.5294	1.0313	1.5294	1.0313	0.628	419	1.0058	0.5236	0.0255	0.83	0.28	0.06	0.5	0.33	0.48	tv7	-0.32	0.1044	
17	B-DM-MB-23	B			29. 8. 2016	24. 10. 2016	8 pl		1.6893	1.0969	1.6893	1.0969	0.635	423	1.0823	0.607	0.0146	0.96	0.2	0.02	0.59	0.35	0.54	tv8	-0.3164	0.028	
18	B-DM-MB-24	B			29. 8. 2016	24. 10. 2016	8 pl		1.6259	1.0439	1.6259	1.0439	0.702	468	1.0265	0.5994	0.0174	0.85	0.26	0.06	0.58	0.36	0.56	plo9	-0.3193	0.1026	
19	B-DM-MB-25	B			4. 8. 2016	29. 9. 2016	8 pl		1.5667	1.0764	1.5667	1.0764	0.676	451	1.0533	0.5134	0.0231	0.76	0.33	0.09	0.49	0.31	0.46	plo10	-0.3548	0.1626	
20	B-DM-MB-26	B			4. 8. 2016	29. 9. 2016	8 pl		1.56	1.0919	1.56	1.0919	0.674	449	1.0397	0.5203	0.0522	0.77	0.39	0.09	0.47	0.3	0.43	tv9	-0.4517	0.1537	
21	B-DM-MB-27	B			4. 8. 2016	29. 9. 2016	8 pl		1.4585	0.9877	1.4585	0.9877	0.635	423	0.9501	0.5084	0.0376	0.8	0.34	0.08	0.47	0.32	0.48	tv10	-0.3695	0.1266	
22	B-DM-MB-28	B			4. 8. 2016	29. 9. 2016	8 pl		1.4697	1.0436	1.4697	1.0436	0.602	401	1.0081	0.4616	0.0355	0.77	0.38	0.09	0.43	0.29	0.41	tv11	-0.4212	0.1404	
23	B-DM-MB-29	B			4. 8. 2016	29. 9. 2016	8 pl		1.6792	2.0884	1.5775	1.0798	0.672	448	1.0072	0.5703	0.0726	0.85	0.32	0.06	0.5	0.32	0.46	tv12	-0.4092	0.1017	
24	B-DM-MB-3	B			13. 7. 2016	2. 11. 2016	16 pl		1.6162	2.0028	1.4669	1.1078	0.632	421	0.9842	0.4827	0.1236	0.76	0.37	0.09	0.36	0.24	0.32	plo11	-0.3866	0.1493	
25	B-DM-MB-30	B			4. 8. 2016	29. 9. 2016	8 pl		1.6243	2.0613	1.5395	1.0468	0.614	409	1.0103	0.5292	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	plo12	-0.437	0.0848	
26	B-DM-MB-31	B			4. 8. 2016	29. 9. 2016	8 pl		1.7029	2.1486	1.5973	1.0518	0.707	471	0.9959	0.6014	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	plo13	-0.4457	0.1056	
27	B-DM-MB-32	B			4. 8. 2016	29. 9. 2016	8 pl		1.7115	2.1377	1.5818	1.0477	0.706	471	1.0055	0.5763	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	plo14	-0.4262	0.1297	
28	B-DM-MB-33	B			4. 8. 2016	29. 9. 2016	8 tv		1.727	2.1848	1.5385	1.0867	0.676	451	1.051	0.4875	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	plo15	-0.4578	0.1885	
29	B-DM-MB-34	B			4. 8. 2016	29. 9. 2016	8 tv		1.7166	2.1716	1.5235	1.0824	0.664	443	1.0526	0.4709	0.0298	0.71	0.43	0.11	0.44	0.29	0.41	plo16	-0.455	0.1931	
30	B-DM-MB-35	B			4. 8. 2016	29. 9. 2016	8 tv		1.7139	2.1718	1.6178	1.1594	0.607	405	1.1069	0.5109	0.0525	0.84	0.34	0.06	0.46	0.28	0.4	plo17	-0.4579	0.0961	
31	B-DM-MB-36	B			4. 8. 2016	29. 9. 2016	8 tv		1.7267	2.1694	1.5205	1.0893	0.685	457	1.0417	0.4788	0.0476	0.7	0.43	0.12	0.43	0.28	0.4	plo18	-0.4427	0.2062	
32	B-DM-MB-37	B			4. 8. 2016	29. 9. 2016	8 tv		1.7372	2.1615	1.5698	1.0932	0.687	458	1.0502	0.5196	0.043	0.76	0.38	0.1	0.48	0.3	0.44	plo19	-0.4243	0.1674	
33	B-DM-MB-38	B			29. 8. 2016	24. 10. 2016	8 tv		1.723	2.1823	1.5238	1.06	0.696	464	1.027	0.4968	0.033	0.71	0.43	0.12	0.46	0.3	0.44	plo20	-0.4593	0.1992	
34	B-DM-MB-39	B			29. 8. 2016	24. 10. 2016	8 tv		1.7253	2.1697	1.5169	1.0794	0.677	451	1.0483	0.4686	0.0311	0.69	0.43	0.12	0.44	0.29	0.41	tv13	-0.4444	0.2084	
35	B-DM-MB-4	B			13. 7. 2016	2. 11. 2016	16 pl		1.6965	2.1368	1.4942	1.0685	0.712	475	0.9845	0.5097	0.084	0.72	0.43	0.12	0.43	0.28	0.4	tv14	-0.4403	0.2023	
36	B-DM-MB-40	B			29. 8. 2016	24. 10. 2016	8 tv		1.7278	2.1516	1.4563	1.0434	0.714	476	1.0138	0.4425	0.0296	0.62	0.48	0.16	0.41	0.28	0.4	tv15	-0.4238	0.2715	
37	B-DM-MB-5	B			13. 7. 2016	2. 11. 2016	16 pl		1.6761	2.0886	1.4999	1.095	0.658	439	1.0181	0.4818	0.0769	0.73	0.39	0.11	0.4	0.27	0.37	tv16	-0.4125	0.1762	

And again, we copy the formula to all rows using the bottom right corner double click (on cell C2).

FileHomeInsertPage LayoutFormulasDataReviewViewHelp

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Clipboard

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Font

Wrap Text

Alignment

General

Number

Conditional Formatting

Format as Table

NormalBadGoodNeutralCalculation

Check CellExplanatory...Followed Hy...HyperlinkInput

Styles

InsertDeleteFormat

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Sort & Find & Filter & Select

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Ideas

Ideas

Sensitivity

Sensitivity

AutoSave

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ShareComments

D2

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	SpecimenID	Species	Treatme	Number	StartDate	EndDate	Duration	Inoculan	InitialDry	PostInnoc	PostInnoc	PostExtr	Impregn	Retentio	WoodW	Remainir	EndWeig	OilRema	MCPostl	Relative	OilExtrac	OilExtrac	OilConte	PetriDis	I-J	I-K
2	B-DM-MB-1	B	DM	-1	13. 7. 2016	2. 11. 2016	16	pl	1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	plo1	-0.4336	0.176
3	B-DM-MB-10	B	DM	10	13. 7. 2016	2. 11. 2016	16	tv	1.6966	2.1996	1.4532	1.1034	0.681	454	1.0156	0.4376	0.0878	0.64	0.51	0.14	0.35	0.24	0.32	plo2	-0.503	0.2434
4	B-DM-MB-11	B	DM	11	13. 7. 2016	2. 11. 2016	16	tv	1.6703	2.1793	1.4813	1.0812	0.697	465	0.9733	0.508	0.1079	0.73	0.47	0.11	0.4	0.27	0.37	plo3	-0.509	0.189
5	B-DM-MB-12	B	DM	12	13. 7. 2016	2. 11. 2016	16	tv	1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	plo4	-0.4334	0.1563
6	B-DM-MB-13	B	DM	13	13. 7. 2016	2. 11. 2016	16	tv	1.6945	2.12	1.4805	1.0773	0.673	449	1.0215	0.459	0.0558	0.68	0.43	0.13	0.4	0.27	0.37	plo5	-0.4255	0.214
7	B-DM-MB-14	B	DM	14	13. 7. 2016	2. 11. 2016	16	tv	1.6578	2.1165	1.4771	1.086	0.657	438	1.0008	0.4763	0.0852	0.72	0.43	0.11	0.39	0.26	0.36	plo6	-0.4587	0.1807
8	B-DM-MB-15	B	DM	15	13. 7. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo7	-0.1136	0.3412
9	B-DM-MB-16	B	DM	16	13. 7. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo8	-0.4898	0.195
10	B-DM-MB-17	B	DM	17	28. 7. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	tv1	-0.5029	0.0991
11	B-DM-MB-18	B	DM	18	28. 7. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	tv2	-0.5108	0.2243
12	B-DM-MB-19	B	DM	19	28. 7. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	tv3	-0.4926	0.1959
13	B-DM-MB-2	B	DM	-2	13. 7. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	tv4	-0.4076	0.1857
14	B-DM-MB-20	B	DM	20	28. 7. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	tv5	-0.4706	0.1566
15	B-DM-MB-21	B	DM	21	29. 7. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	tv6	-0.3288	0.0957
16	B-DM-MB-22	B	DM	22	29. 7. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	tv7	-0.32	0.1044
17	B-DM-MB-23	B	DM	23	29. 7. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	tv8	-0.3164	0.028
18	B-DM-MB-24	B	DM	24	29. 7. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo9	-0.3193	0.1026
19	B-DM-MB-25	B	DM	25	4. 8. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo10	-0.3548	0.1626
20	B-DM-MB-26	B	DM	26	4. 8. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	tv9	-0.4517	0.1537
21	B-DM-MB-27	B	DM	27	4. 8. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	tv10	-0.3695	0.1266
22	B-DM-MB-28	B	DM	28	4. 8. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	tv11	-0.4212	0.1404
23	B-DM-MB-29	B	DM	29	4. 8. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	tv12	-0.4092	0.1017
24	B-DM-MB-3	B	DM	-3	13. 7. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo11	-0.3866	0.1493
25	B-DM-MB-30	B	DM	30	4. 8. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo12	-0.437	0.0848
26	B-DM-MB-31	B	DM	31	4. 8. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo13	-0.4457	0.1056
27	B-DM-MB-32	B	DM	32	4. 8. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo14	-0.4262	0.1297
28	B-DM-MB-33	B	DM	33	4. 8. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo15	-0.4578	0.1885
29	B-DM-MB-34	B	DM	34	4. 8. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo16	-0.455	0.1931
30	B-DM-MB-35	B	DM	35	4. 8. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo17	-0.4579	0.0961
31	B-DM-MB-36	B	DM	36	4. 8. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo18	-0.4427	0.2062
32	B-DM-MB-37	B	DM	37	4. 8. 2016	2. 11. 2016	16	tv	1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0.12	0.13	plo19	-0.4243	0.1674
33	B-DM-MB-38	B	DM	38	29. 8. 2016	24. 10. 2016	8	tv	1.723	2.1823	1.5238	1.06	0.696	464	1.027	0.4968	0.033	0.71	0.43	0.12	0.46	0.3	0.44	plo20	-0.4593	0.1992
34	B-DM-MB-39	B	DM	39	29. 8. 2016	24. 10. 2016	8	tv	1.7253	2.1697	1.5169	1.0794	0.677	451	1.0483	0.4686	0.0311	0.69	0.43	0.12	0.44	0.29	0.41	tv13	-0.4444	0.2084
35	B-DM-MB-4	B	DM	-4	13. 7. 2016	2. 11. 2016	16	pl	1.6965	2.1368	1.4942	1.0685	0.712	475	0.9845	0.5097	0.084	0.72	0.43	0.12	0.43	0.28	0.4	tv14	-0.4403	0.2023
36	B-DM-MB-40	B	DM	40	29. 8. 2016	24. 10. 2016	8	tv	1.7278	2.1516	1.4563	1.0434	0.714	476	1.0138	0.4425	0.0296	0.62	0.48	0.16	0.41	0.28	0.4	tv15	-0.4238	0.2715
37	B-DM-MB-5	B	DM	-5	13. 7. 2016	2. 11. 2016	16	pl	1.6761	2.0886	1.4999	1.095	0.658	439	1.0181	0.4818	0.0769	0.73	0.39	0.11	0.4	0.27	0.37	tv16	-0.4125	0.1762

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OOTFungi1MS_11112017_v1_r0 (1) - Excel

FileHomeInsertPage LayoutFormulasDataReviewViewHelp

CutCopyFormat Painter

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Calibri11

BBIU

Font Color

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Alignment

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Conditional Formatting

Format as Table

NormalBadGoodNeutralCalculation

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AutoSumFill

Sort & Filter

Editing

Ideas

Sensitivity

ShareComments

AutoSave

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=RIGHT(A2;LEN(A2)-8)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	SpecimenID	Species	Treatme	Number	StartDate	EndDate	Duration	Inoculan	InitialDry	PostInnoc	PostInnoc	PostExtr	Impregn	Retentio	WoodW	Remainin	EndWeig	OilRema	MCPostl	Relative	OilExtrac	OilExtrac	OilConte	PetriDis	I-J	I-K
2	B-DM-MB-1	B	DM	1	13. 7. 2016	2. 11. 2016	16 pl		1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	plo1	-0.4336	0.176
3	B-DM-MB-10	B	DM	10	13. 7. 2016	2. 11. 2016	16 tv		1.6966	2.1996	1.4532	1.1034	0.681	454	1.0156	0.4376	0.0878	0.64	0.51	0.14	0.35	0.24	0.32	plo2	-0.503	0.2434
4	B-DM-MB-11	B	DM	11	13. 7. 2016	2. 11. 2016	16 tv		1.6703	2.1793	1.4813	1.0812	0.697	465	0.9733	0.508	0.1079	0.73	0.47	0.11	0.4	0.27	0.37	plo3	-0.509	0.189
5	B-DM-MB-12	B	DM	12	13. 7. 2016	2. 11. 2016	16 tv		1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	plo4	-0.4334	0.1563
6	B-DM-MB-13	B	DM	13	13. 7. 2016	2. 11. 2016	16 tv		1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	plo4	-0.4334	0.1563
7	B-DM-MB-14	B	DM	14	13. 7. 2016	2. 11. 2016	16 tv		1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	plo4	-0.4334	0.1563
8	B-DM-MB-15	B	DM	15	13. 7. 2016	2. 11. 2016	16 tv		1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	plo4	-0.4334	0.1563
9	B-DM-MB-16	B	DM	16	13. 7. 2016	2. 11. 2016	16 tv		1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	plo4	-0.4334	0.1563
10	B-DM-MB-17	B	DM	17	28. 7. 2016	2. 11. 2016	16 tv		1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	plo4	-0.4334	0.1563
11	B-DM-MB-18	B	DM	18	28. 7. 2016	2. 11. 2016	16 tv		1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	plo4	-0.4334	0.1563
12	B-DM-MB-19	B	DM	19	28. 7. 2016	2. 11. 2016	16 tv		1.6715	2.1049	1.5152	1.1111	0.654	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0.27	0.36	plo4	-0.4334	0.1563
13	B-DM-MB-2	B	DM	2	13. 7. 2016	2. 11. 2016	16 pl		1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	plo1	-0.4336	0.176
14	B-DM-MB-20	B	DM	20	28. 7. 2016	2. 11. 2016	16 pl		1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0.25	0.34	plo1	-0.4336	0.176
15	B-DM-MB-21	B	DM	21	29. 7. 2016	23. 9. 2016	8 tv		1.6338	1.9538	1.5294	1.0313	0.628	419	1.0058	0.5236	0.0255	0.83	0.28	0.06	0.5	0.33	0.48	tv7	-0.32	0.1044
16	B-DM-MB-22	B	DM	22	29. 7. 2016	23. 9. 2016	8 tv		1.6338	1.9538	1.5294	1.0313	0.628	419	1.0058	0.5236	0.0255	0.83	0.28	0.06	0.5	0.33	0.48	tv7	-0.32	0.1044
17	B-DM-MB-23	B	DM	23	29. 7. 2016	23. 9. 2016	8 pl		1.7173	2.0337	1.6893	1.0969	0.635	423	1.0823	0.607	0.0146	0.96	0.2	0.02	0.59	0.35	0.54	tv8	-0.3164	0.028
18	B-DM-MB-24	B	DM	24	29. 7. 2016	23. 9. 2016	8 pl		1.7285	2.0478	1.6259	1.0439	0.702	468	1.0265	0.5994	0.0174	0.85	0.26	0.06	0.58	0.36	0.56	plo9	-0.3193	0.1026
19	B-DM-MB-25	B	DM	25	4. 8. 2016	29. 9. 2016	8 pl		1.7293	2.0841	1.5667	1.0764	0.676	451	1.0533	0.5134	0.0231	0.76	0.33	0.09	0.49	0.31	0.46	plo10	-0.3548	0.1626
20	B-DM-MB-26	B	DM	26	4. 8. 2016	29. 9. 2016	8 pl		1.7137	2.1654	1.56	1.0919	0.674	449	1.0397	0.5203	0.0522	0.77	0.39	0.09	0.47	0.3	0.43	tv9	-0.4517	0.1537
21	B-DM-MB-27	B	DM	27	4. 8. 2016	29. 9. 2016	8 pl		1.5851	1.9546	1.4585	0.9877	0.635	423	0.9501	0.5084	0.0376	0.8	0.34	0.08	0.47	0.32	0.48	tv10	-0.3695	0.1266
22	B-DM-MB-28	B	DM	28	4. 8. 2016	29. 9. 2016	8 pl		1.6101	2.0313	1.4697	1.0436	0.602	401	1.0081	0.4616	0.0355	0.77	0.38	0.09	0.43	0.29	0.41	tv11	-0.4212	0.1404
23	B-DM-MB-29	B	DM	29	4. 8. 2016	29. 9. 2016	8 pl		1.6792	2.0884	1.5775	1.0798	0.672	448	1.0072	0.5703	0.0726	0.85	0.32	0.06	0.5	0.32	0.46	tv12	-0.4092	0.1017
24	B-DM-MB-3	B	DM	3	13. 7. 2016	2. 11. 2016	16 pl		1.6162	2.0028	1.4669	1.1078	0.632	421	0.9842	0.4827	0.1236	0.76	0.37	0.09	0.36	0.24	0.32	plo11	-0.3866	0.1493
25	B-DM-MB-30	B	DM	30	4. 8. 2016	29. 9. 2016	8 pl		1.6243	2.0613	1.5395	1.0468	0.614	409	1.0103	0.5292	0.0365	0.86	0.34	0.05	0.49	0.32	0.47	plo12	-0.437	0.0848
26	B-DM-MB-31	B	DM	31	4. 8. 2016	29. 9. 2016	8 pl		1.7029	2.1486	1.5973	1.0518	0.707	471	0.9959	0.6014	0.0559	0.85	0.35	0.06	0.55	0.34	0.52	plo13	-0.4457	0.1056
27	B-DM-MB-32	B	DM	32	4. 8. 2016	29. 9. 2016	8 pl		1.7115	2.1377	1.5818	1.0477	0.706	471	1.0055	0.5763	0.0422	0.82	0.35	0.08	0.53	0.34	0.51	plo14	-0.4262	0.1297
28	B-DM-MB-33	B	DM	33	4. 8. 2016	29. 9. 2016	8 tv		1.727	2.1848	1.5385	1.0867	0.676	451	1.051	0.4875	0.0357	0.72	0.42	0.11	0.45	0.29	0.42	plo15	-0.4578	0.1885
29	B-DM-MB-34	B	DM	34	4. 8. 2016	29. 9. 2016	8 tv		1.7166	2.1716	1.5235	1.0824	0.664	443	1.0526	0.4709	0.0298	0.71	0.43	0.11	0.44	0.29	0.41	plo16	-0.455	0.1931
30	B-DM-MB-35	B	DM	35	4. 8. 2016	29. 9. 2016	8 tv		1.7139	2.1718	1.6178	1.1594	0.607	405	1.1069	0.5109	0.0525	0.84	0.34	0.06	0.46	0.28	0.4	plo17	-0.4579	0.0961
31	B-DM-MB-36	B	DM	36	4. 8. 2016	29. 9. 2016	8 tv		1.7267	2.1694	1.5205	1.0893	0.685	457	1.0417	0.4788	0.0476	0.7	0.43	0.12	0.43	0.28	0.4	plo18	-0.4427	0.2062
32	B-DM-MB-37	B	DM	37	4. 8. 2016	29. 9. 2016	8 tv		1.7372	2.1615	1.5698	1.0932	0.687	458	1.0502	0.5196	0.043	0.76	0.38	0.1	0.48	0.3	0.44	plo19	-0.4243	0.1674
33	B-DM-MB-38	B	DM	38	29. 8. 2016	24. 10. 2016	8 tv		1.723	2.1823	1.5238	1.06	0.696	464	1.027	0.4968	0.033	0.71	0.43	0.12	0.46	0.3	0.44	plo20	-0.4593	0.1992
34	B-DM-MB-39	B	DM	39	29. 8. 2016	24. 10. 2016	8 tv		1.7253	2.1697	1.5169	1.0794	0.677	451	1.0483	0.4686	0.0311	0.69	0.43	0.12	0.44	0.29	0.41	tv13	-0.4444	0.2084
35	B-DM-MB-4	B	DM	4	13. 7. 2016	2. 11. 2016	16 pl		1.6965	2.1368	1.4942	1.0685	0.712	475	0.9845	0.5097	0.084	0.72	0.43	0.12	0.43	0.28	0.4	tv14	-0.4403	0.2023
36	B-DM-MB-40	B	DM	40	29. 8. 2016	24. 10. 2016	8 tv		1.7278	2.1516	1.4563	1.0434	0.714	476	1.0138	0.4425	0.0296	0.62	0.48	0.16	0.41	0.28	0.4	tv15	-0.4238	0.2715
37	B-DM-MB-5	B	DM	5	13. 7. 2016	2. 11. 2016	16 pl		1.6761	2.0886	1.4999	1.095	0.658	439	1.0181	0.4818	0.0769	0.73	0.39	0.11	0.4	0.27	0.37	tv16	-0.4125	0.1762

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Or we can nest another formula inside using the LEN function which takes the length of the text string into account.

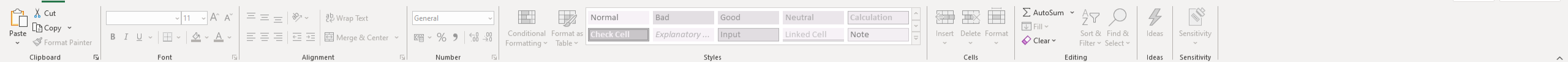
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
1	SpecimenID	Species	Treatment	Number	Concatenate	StartDate	EndDate	Duration	Inoculant	Long name	InitialDryM	PostInoc	PostInno	PostExtra	Impregna	Retention	WoodWe	Remaining	EndWeigh	Oilf
2	B-DM-MB-1	B	DM	1	B-DM-MB1	13.07.2016	2.11.2016	16	pl		1.6776	2.1112	1.5016	1.1203	0.648	432	1.0296	0.472	0.0907	
3	B-DM-MB-10	B	DM	10	B-DM-MB10	13.07.2016	2.11.2016	16	tv		1.6966	2.1996	1.4532	1.1034	0.681	454	1.0156	0.4376	0.0878	
4	B-DM-MB-11	B	DM	11	B-DM-MB11	13.07.2016	2.11.2016	16	tv		1.6703	2.1793	1.4813	1.0812	0.697	465	0.9733	0.508	0.1079	
5	B-DM-MB-12	B																	0.0936	
6	B-DM-MB-13	B																	0.0558	
7	B-DM-MB-14	B																	0.0852	
8	B-DM-MB-15	B																	0.173	
9	B-DM-MB-16	B																	0.0945	
10	B-DM-MB-17	B																	0.1936	
11	B-DM-MB-18	B																	0.0923	
12	B-DM-MB-19	B																	0.0977	
13	B-DM-MB-2	B																	0.1058	
14	B-DM-MB-20	B																	0.0925	
15	B-DM-MB-21	B																	0.0164	
16	B-DM-MB-22	B																	0.0255	
17	B-DM-MB-23	B																	0.0146	
18	B-DM-MB-24	B																	0.0174	
19	B-DM-MB-25	B																	0.0231	
20	B-DM-MB-26	B																	0.0522	
21	B-DM-MB-27	B																	0.0376	
22	B-DM-MB-28	B	DM	28	B-DM-MB28	4.08.2016	29.09.2016	8	pl		1.6101	2.0313	1.4697	1.0436	0.602	401	1.0081	0.4616	0.0355	
23	B-DM-MB-29	B	DM	29	B-DM-MB29	4.08.2016	29.09.2016	8	pl		1.6792	2.0884	1.5775	1.0798	0.672	448	1.0072	0.5703	0.0726	
24	B-DM-MB-3	B	DM	3	B-DM-MB3	13.07.2016	2.11.2016	16	pl		1.6162	2.0028	1.4669	1.1078	0.632	421	0.9842	0.4827	0.1236	
25	B-DM-MB-30	B	DM	30	B-DM-MB30	4.08.2016	29.09.2016	8	pl		1.6243	2.0613	1.5395	1.0468	0.614	409	1.0103	0.5292	0.0365	
26	B-DM-MB-31	B	DM	31	B-DM-MB31	4.08.2016	29.09.2016	8	pl		1.7029	2.1486	1.5973	1.0518	0.707	471	0.9959	0.6014	0.0559	
27	B-DM-MB-32	B	DM	32	B-DM-MB32	4.08.2016	29.09.2016	8	pl		1.7115	2.1377	1.5818	1.0477	0.706	471	1.0055	0.5763	0.0422	
28	B-DM-MB-33	B	DM	33	B-DM-MB33	4.08.2016	29.09.2016	8	tv		1.727	2.1848	1.5385	1.0867	0.676	451	1.051	0.4875	0.0357	

Now let's learn about the VLOOKUP function.

Let's say we want to create a new variable where the Inoculant names are displayed with the long name instead of the acronym.

We could do that with the replace command (CTRL+H) but that would be impractical in case of many diffierent values.

[illegible]



AutoSave ☐ Off

J2 X ✓ fx =VLOOKUP(I2;legend!\$A\$1:\$B\$5;2;FALSE)

	A	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	
1	SpecimenID	StartDate	EndDate	Duration	Inoculant	Long name	InitialDryWt	PostInoc	PostInnoc	PostExtra	Impregnat	Retention	WoodWe	Remaining	EndWeight	OilRemain	MCPostlnr	RelativeM	OilExtract	OilExtr	
2	B-DM-MB-1	13.07.2016	2.11.2016	16	pl	=VLOOKUP(I2;legend!\$A\$1:\$B\$5;2;FALSE)					0.648	432	1.0296	0.472	0.0907	0.73	0.41	0.1	0.38	0	
3	B-DM-MB-10	13.07.2016	2.11.2016	16	pl		1.6866	2.1885	1.4588	1.1834	0.681	454	1.0156	0.4376	0.0878	0.64	0.51	0.14	0.35	0	
4	B-DM-MB-11	28.07.2016	17.11.2016	8	pl		1.7293	2.0841	1.5667	1.0764	0.676	465	0.9733	0.508	0.1079	0.73	0.47	0.11	0.4	0	
5	B-DM-MB-12	28.07.2016	17.11.2016	8	pl		1.7137	2.1654	1.56	1.0919	0.674	436	1.0175	0.4977	0.0936	0.76	0.39	0.09	0.4	0	
6	B-DM-MB-13	28.07.2016	17.11.2016	8	pl		1.5851	1.9546	1.4585	0.9877	0.635	449	1.0215	0.459	0.0558	0.68	0.43	0.13	0.4	0	
7	B-DM-MB-14	28.07.2016	17.11.2016	8	pl		1.6101	2.0313	1.4697	1.0436	0.602	438	1.0008	0.4763	0.0852	0.72	0.43	0.11	0.39	0	
8	B-DM-MB-15	13.07.2016	2.11.2016	16	tv		1.6721	1.7857	1.3309	1.1771	0.668	445	1.0041	0.3268	0.173	0.49	0.34	0.2	0.15	0	
9	B-DM-MB-16	13.07.2016	2.11.2016	16	pl		1.7285	2.0478	1.6259	1.1022	0.662	441	1.0077	0.467	0.0945	0.71	0.46	0.12	0.37	0	
10	B-DM-MB-17	28.07.2016	17.11.2016	8	pl		1.0535	1.4515	1.1092	1.1092	0.635	423	0.9156	0.5359	0.1936	0.84	0.41	0.06	0.34	0	
11	B-DM-MB-18	28.07.2016	17.11.2016	8	pl		1.1836	1.4485	1.0881	1.0881	0.677	451	0.9958	0.4527	0.0923	0.67	0.51	0.13	0.36	0	
12	B-DM-MB-19	28.07.2016	17.11.2016	8	pl		1.1545	1.466	1.0896	1.0896	0.67	447	0.9919	0.4741	0.0977	0.71	0.47	0.12	0.38	0	
13	B-DM-MB-2	13.07.2016	2.11.2016	16	pl		1.0619	1.4686	1.0581	1.0581	0.702	468	0.9523	0.5163	0.1058	0.74	0.4	0.11	0.41	0	
14	B-DM-MB-20	28.07.2016	17.11.2016	8	pl		2.085	1.4578	1.0709	1.0709	0.636	424	0.9784	0.4794	0.0925	0.75	0.43	0.1	0.39	0	
15	B-DM-MB-21	29.07.2016	23.09.2016	8	pl		1.0388	1.6143	1.0524	1.0524	0.674	449	1.036	0.5783	0.0164	0.86	0.26	0.06	0.56	0	
16	B-DM-MB-22	29.07.2016	23.09.2016	8	pl		1.9538	1.5294	1.0313	1.0313	0.628	419	1.0058	0.5236	0.0255	0.83	0.28	0.06	0.5	0	
17	B-DM-MB-23	29.07.2016	23.09.2016	8	pl		1.0337	1.6893	1.0969	1.0969	0.635	423	1.0823	0.607	0.0146	0.96	0.2	0.02	0.59	0	
18	B-DM-MB-24	29.07.2016	23.09.2016	8	pl			1.7285	2.0478	1.6259	1.0439	0.702	468	1.0265	0.5994	0.0174	0.85	0.26	0.06	0.58	0
19	B-DM-MB-25	4.08.2016	29.09.2016	8	pl			1.7293	2.0841	1.5667	1.0764	0.676	451	1.0533	0.5134	0.0231	0.76	0.33	0.09	0.49	0
20	B-DM-MB-26	4.08.2016	29.09.2016	8	pl			1.7137	2.1654	1.56	1.0919	0.674	449	1.0397	0.5203	0.0522	0.77	0.39	0.09	0.47	0
21	B-DM-MB-27	4.08.2016	29.09.2016	8	pl			1.5851	1.9546	1.4585	0.9877	0.635	423	0.9501	0.5084	0.0376	0.8	0.34	0.08	0.47	0
22	B-DM-MB-28	4.08.2016	29.09.2016	8	pl			1.6101	2.0313	1.4697	1.0436	0.602	401	1.0081	0.4616	0.0355	0.77	0.38	0.09	0.43	0
23	B-DM-MB-29	4.08.2016	29.09.2016	8	pl			1.6792	2.0884	1.5775	1.0798	0.672	448	1.0072	0.5703	0.0726	0.85	0.32	0.06	0.5	0
24	B-DM-MB-3	13.07.2016	2.11.2016	16	pl			1.6162	2.0028	1.4669	1.1078	0.632	421	0.9842	0.4827	0.1236	0.76	0.37	0.09	0.36	0
25	B-DM-MB-30	4.08.2016	29.09.2016	8	pl			1.6243	2.0613	1.5395	1.0468	0.614	409	1.0103	0.5292	0.0365	0.86	0.34	0.05	0.49	0
26	B-DM-MB-31	4.08.2016	29.09.2016	8	pl			1.7029	2.1486	1.5973	1.0518	0.707	471	0.9959	0.6014	0.0559	0.85	0.35	0.06	0.55	0
27	B-DM-MB-32	4.08.2016	29.09.2016	8	pl			1.7115	2.1377	1.5818	1.0477	0.706	471	1.0055	0.5763	0.0422	0.82	0.35	0.08	0.53	0
28	B-DM-MB-33	4.08.2016	29.09.2016	8	tv			1.727	2.1848	1.5385	1.0867	0.676	451	1.051	0.4875	0.0357	0.72	0.42	0.11	0.45	0

Then we go back to the first sheet and use the VLOOKUP function to retrieve values.

Function Arguments

VLOOKUP

Lookup_value I2 = "pl"

Table_array legend!\$A\$1:\$B\$5 = ("code","long name";"gt","Gleopyllum"

Col_index_num 2 = 2

Range_lookup FALSE = FALSE

= "Pleurotus ostreatus"

Looks for a value in the leftmost column of a table, and then returns a value in the same row from a column you specify. By default, the table must be sorted in an ascending order.

Range_lookup is a logical value: to find the closest match in the first column (sorted in ascending order) = TRUE or omitted; find an exact match = FALSE.

Formula result = Pleurotus ostreatus

[Help on this function](#)

OK Cancel

OOTFungi1MS_11112017_v1_r0 (1) ~ Last Modified: 10h ago

FileHomeInsertPage LayoutFormulasDataReviewViewHelp

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Number

Conditional Formatting

Format as Table

NormalBadGoodNeutralCalculation

Check CellExplanatory...InputLinked CellNote

Styles

InsertDeleteFormat

Cells

AutoSumFill

Editing

Sort & Find & Filter

Editing

Ideas

Ideas

Sensitivity

Sensitivity

Share

Comments

AutoSave

Undo

Redo

J5

=VLOOKUP(I5;legend!\$A\$1:\$B\$5;2;FALSE)

	A	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	SpecimenID	StartDate	EndDate	Duration	Inoculant	Long name	InitialDryM	PostInocul	PostInnoc	PostExtra	Impregnat	Retention	WoodWe	Remaining	EndWeigh	OilRemain	MCPostInr	RelativeM	OilExtr
188	B-LO-MB-40	29.08.2016	24.10.2016	8	tv	Trametes versicolor	1.6935	2.0217	1.4891	1.0804	0.655	437	1.0385	0.4506	0.0419	0.69	0.36	0.12	0
189	B-LO-MB-5	13.07.2016	2.11.2016	16	pl	Pleurotus ostreatus	1.591	1.6681	1.1342	1.0636	0.673	449	0.918	0.2162	0.1456	0.32	0.47	0.29	0
190	B-LO-MB-6	13.07.2016	2.11.2016	16	pl	Pleurotus ostreatus	1.5771	2.1028	1.35	1.0304	0.643	429	0.9341	0.4159	0.0963	0.65	0.56	0.14	0
191	B-LO-MB-7	13.07.2016	2.11.2016	16	pl	Pleurotus ostreatus	1.553	2.0774	1.2294	1.0852	0.625	417	0.928	0.3014	0.1572	0.48	0.69	0.21	0
192	B-LO-MB-8	13.07.2016	2.11.2016	16	pl	Pleurotus ostreatus	1.6296	1.8276	1.4467	1.0806	0.654	436	0.9756	0.4711	0.105	0.72	0.26	0.11	0
193	B-LO-MB-9	13.07.2016	2.11.2016	16	tv	Trametes versicolor	1.5959	1.5073	1.1508	1.1089	0.65	433	0.9459	0.2049	0.163	0.32	0.31	0.28	0
194	P-DM-MB-1	13.07.2016	2.11.2016	16	pm	Rhodonia placenta	1.5029	1.6873	1.3022	0.5635	0.959	639	0.5439	0.7583	0.0196	0.79	0.3	0.13	0
195	P-DM-MB-10	28.07.2016	17.11.2016	16	pm	Rhodonia placenta	1.3679	1.6337	1.1637	0.6574	0.736	401	0.6318	0.5318	0.0355	0.73	0.4	0.15	0
196	P-DM-MB-11	28.07.2016	17.11.2016	16	pm	Rhodonia placenta	1.7343												
197	P-DM-MB-12	28.07.2016	17.11.2016	16	pm	Rhodonia placenta	1.815												
198	P-DM-MB-13	28.07.2016	17.11.2016	16	pm	Rhodonia placenta	1.828												
199	P-DM-MB-14	28.07.2016	17.11.2016	16	pm	Rhodonia placenta	1.8295												
200	P-DM-MB-15	28.07.2016	17.11.2016	16	pm	Rhodonia placenta	1.8014	2.0333	1.3022	1.0733	0.707	505	1.0374	0.5248	0.0419	0.82	0.28	0.08	0
201	P-DM-MB-16	28.07.2016	17.11.2016	16	gt	Gleopyllum trabeum	1.8269	2.1188	1.6307	1.0378	0.743	495	1.0839	0.5468	-0.0461	0.74	0.3	0.11	0
202	P-DM-MB-17	28.07.2016	17.11.2016	16	gt	Gleopyllum trabeum	1.7971	2.1917	1.6414	1.1348	0.699	466	1.0981	0.5433	0.0367	0.78	0.34	0.09	0
203	P-DM-MB-18	28.07.2016	17.11.2016	16	gt	Gleopyllum trabeum	1.8262	2.1853	1.6308	1.1483	0.666	444	1.1602	0.4706	-0.0119	0.71	0.34	0.11	0
204	P-DM-MB-19	28.07.2016	17.11.2016	16	gt	Gleopyllum trabeum	1.7721	2.1362	1.5595	1.0471	0.751	501	1.0211	0.5384	0.026	0.72	0.37	0.12	0
205	P-DM-MB-2	13.07.2016	2.11.2016	16	pm	Rhodonia placenta	1.2965	1.3672	1.1133	0.6275	0.654	436	0.6425	0.4708	-0.015	0.72	0.23	0.14	0
206	P-DM-MB-20	28.07.2016	17.11.2016	16	gt	Gleopyllum trabeum	1.7578	2.1548	1.5501	1.0326	0.701	467	1.0568	0.4933	-0.0242	0.7	0.39	0.12	0
207	P-DM-MB-21	29.07.2016	23.09.2016	8	pm	Rhodonia placenta	1.8266	2.0942	1.757	1.1354	0.75	500	1.0766	0.6804	0.0588	0.91	0.19	0.04	0
208	P-DM-MB-22	29.07.2016	23.09.2016	8	pm	Rhodonia placenta	1.7854	2.0701	1.7456	1.1608	0.722	481	1.0634	0.6822	0.0974	0.94	0.19	0.02	0
209	P-DM-MB-23	29.07.2016	23.09.2016	8	pm	Rhodonia placenta	1.7516	1.9413	1.6935	1.1007	0.735	490	1.0166	0.6769	0.0841	0.92	0.15	0.03	0
210	P-DM-MB-24	29.07.2016	23.09.2016	8	pm	Rhodonia placenta	1.8338	2.0462	1.7858	1.2031	0.744	496	1.0898	0.696	0.1133	0.94	0.15	0.03	0
211	P-DM-MB-25	29.07.2016	23.09.2016	8	pm	Rhodonia placenta	1.6383	1.8537	1.5872	1.1193	0.664	443	0.9743	0.6129	0.145	0.92	0.17	0.03	0
212	P-DM-MB-26	29.07.2016	23.09.2016	8	pm	Rhodonia placenta	1.8171	2.127	1.7707	1.1713	0.713	475	1.1041	0.6666	0.0672	0.93	0.2	0.03	0
213	P-DM-MB-27	29.07.2016	23.09.2016	8	gt	Gleopyllum trabeum	1.8249	2.0843	1.7175	1.1884	0.697	465	1.1279	0.5896	0.0605	0.85	0.21	0.06	0
214	P-DM-MB-28	29.07.2016	23.09.2016	8	gt	Gleopyllum trabeum	1.715	2.0002	1.6612	1.1989	0.712	475	1.003	0.6582	0.1959	0.92	0.2	0.03	0

OOTFungi1MS_11112017_v1_r0 (1)

legend

48

190%

This is very useful for categorical variables that have a lot of different values.

Last but not least: PIVOT TABLES

Create PivotTable

Choose the data that you want to analyze

☒ Select a table or range

Table/Range:

☐ Use an external data source

Connection name:

☐ Use this workbook's Data Model

Choose where you want the PivotTable report to be placed

☒ New Worksheet

☐ Existing Worksheet

Location:

Choose whether you want to analyze multiple tables

☐ Add this data to the Data Model

File Home Insert Page Layout Formulas Data Review View Help **PivotTable Analyze** Design

PivotTable Name: PivotTable3

Active Field: Drill Down Drill Up Expand Field Collapse Field

Field Settings

Group Selection Ungroup Group Field

Filter Connections

Refresh Change Data Source

Clear Select Move PivotTable

Fields, Items, & Sets OLAP Tools Relationships

PivotChart Recommended PivotTables

Field List +/- Field Buttons Headers

AutoSave OFF

A3

The first thing to decide is what values we want to measure.

Let's say we are interested in the Postinoculation Weight...

PivotTable Fields

Choose fields to add to report:

Search

- ☐ SpecimenID
- ☐ Species
- ☐ Treatment
- ☐ Number
- ☐ Concatenate
- ☐ StartDate
- ☐ EndDate
- ☐ Duration
- ☐ Inoculant
- ☐ Long name
- ☐ InitialDryWeight
- ☒ PostInoculationWeight
- ☐ PostInnocDryWeight
- ☐ PostExtractionWeight
- ☐ ImpregnatedOilWeight
- ☐ Retention.kg.m3
- ☐ WoodWeight
- ☐ RemainingOilWeight.g
- ☐ EndWeightMinusWoodWeight
- ☐ OilRemainingPerc
- ☐ MCPPostInoculation
- ☐ RelativeMassLoss
- ☐ OilExtract.g
- ☐ OilExtract.mL

Drag fields between areas below:

Filters Columns

Rows Values

Defer Layout Update Update

Instead of summarizing value fields by Sum we choose Average

Value Field Settings

Source Name: PostInoculationWeight

Custom Name: Average of PostInoculationWeight

Summarize Values By Show Values As

Summarize value field by

Choose the type of calculation that you want to use to summarize data from the selected field

- Sum
- Count
- Average**
- Max
- Min
- Product

Number Format OK Cancel

PivotTable Fields

Choose fields to add to report:

- ☐ SpecimenID
- ☐ Species
- ☐ Treatment
- ☐ Number
- ☐ Concatenate
- ☐ StartDate
- ☐ EndDate
- ☐ Duration
- ☐ Inoculant
- ☐ Long name
- ☐ InitialDryWeight
- ☒ **PostInoculationWeight**
- ☐ PostInnocDryWeight
- ☐ PostExtractionWeight
- ☐ ImpregnatedOilWeight
- ☐ Retention.kg.m3
- ☐ WoodWeight
- ☐ RemainingOilWeight.g
- ☐ EndWeightMinusWoodWeight
- ☐ OilRemainingPerc
- ☐ MCPPostInoculation
- ☐ RelativeMassLoss
- ☐ OilExtract.g
- ☐ OilExtract.m3

Drag fields between areas below:

▼ Filters

■ Columns

■ Rows

Σ Values

Sum of PostInoculation...

☐ Defer Layout Update
 Update

OOTFungi1MS_11112017_v1_r0 (1) - Last Modified: Yesterday at 13:13

Ana Slavec

FileHomeInsertPage LayoutFormulasDataReviewViewHelpPivotTable AnalyzeDesign

PivotTable Name: PivotTable3OptionsPivotTable

Active Field: Average of PostInField SettingsActive FieldDrill DownDrill UpExpand FieldCollapse Field

Group SelectionUngroupGroup FieldGroup

Insert SlicerInsert TimelineFilter ConnectionsFilter

RefreshChange Data SourceData

ClearSelectMove PivotTableActions

Fields, Items, & SetsOLAP ToolsRelationshipsCalculations

PivotChartRecommended PivotTablesTools

Field List+/-Field ButtonsHeadersShow

AutoSaveOff

A3Average of PostInoculationWeight

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1															
2															
3	Average of PostInoculationWeight														
4	1.754909375														
5															
6															
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28															

PivotTable Fields

Choose fields to add to report:

Search

☐ SpecimenID

☐ Species

☐ Treatment

☐ Number

☐ Concatenate

☐ StartDate

☐ EndDate

☐ Duration

☐ Inoculant

☐ Long name

☐ InitialDryWeight

☒ PostInnocDryWeight

☐ PostInnocDryWeight

☐ PostExtractionWeight

☐ ImpregnatedOilWeight

☐ Retention.kg.m3

☐ WoodWeight

☐ RemainingOilWeight.g

☐ EndWeightMinusWoodWeight

☐ OilRemainingPerc

☐ MCPPostInoculation

☐ RelativeMassLoss

☐ OilExtract.g

☐ OilExtract.g

Drag fields between areas below:

Filters

Columns

Rows

Values

Average of PostInocul...

Defer Layout Update

Update

The total average weight is 1.75.

Now we want to know what how it differs between diferent Inoculants...

Sheet3

OOTFungi1MS_11112017_v1_r0 (1) | legend

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File

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Insert

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Formulas

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Review

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Help

PivotTable Analyze

Design

PivotTable Name:

PivotTable3

Options

Active Field:

Long name

Field Settings

Drill Down

Drill Up

Expand Field

Collapse Field

Group Selection

Ungroup

Group Field

Insert Slicer

Insert Timeline

Filter Connections

Refresh

Change Data Source

Clear

Select

Move PivotTable

Fields, Items, & Sets

OLAP Tools

Relationships

PivotChart

Recommended PivotTables

Field List

+/- Buttons

Field Headers

AutoSave

Undo

Redo

Find

A4

Row Labels

	A	B	C	D	E	F	G	H	I	J	K	L
1												
2												
3	Average of PostInoculationWeight	Column Labels										
4	Row Labels	DM	GM	ko	LO	Grand Total						
5	Gleopyllum trabeum	2.02318	2.037745	1.315316667	2.03261	1.762730208						
6	Pleurotus ostreatus	2.09478	2.15932	1.432877778	1.899125	1.819251042						
7	Rhodonia placenta	1.90872	2.027095	1.161363889	1.96437	1.664716667						
8	Trametes versicolor	2.122615	2.14273	1.294197222	1.91521	1.772939583						
9	Grand Total	2.03732375	2.0917225	1.300938889	1.95282875	1.754909375						
10												
11												
12												
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22												
23												
24												
25												
26												
27												
28												

PivotTable Fields

Choose fields to add to report:

Search

☐ Species

☒ Treatment

☐ Number

☐ Concatenate

☐ StartDate

☐ EndDate

☐ Duration

☐ Inoculant

☒ Long name

☐ InitialDryWeight

☒ PostInoculationWeight

☐ PostInnocDryWeight

☐ PostExtractionWeight

☐ ImpregnatedOilWeight

☐ Retention.kg.m3

☐ WoodWeight

☐ RemainingOilWeight.g

☐ EndWeightMinusWoodWeight

☐ OilRemainingPerc

☐ MCPPostInoculation

☐ RelativeMassLoss

☐ OilExtract.g

☐ OilExtract_rel

Drag fields between areas below:

Filters

Columns

Rows

Values

Defer Layout Update

Update

... and different treatments

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Ask me anything about Excel :)

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