

ARM Product Pulse

Your source for the latest ARM updates and best practices

Issue #21

Mark your calendars!

Catch up with GDM staff at several professional meetings this fall and winter. Want in-person training? Join us in San Antonio on January 16-17, 2024 in conjunction with NAICC. Watch your email for registration details later this fall!

Meeting	Meeting Date	Location
Soil Science Society of America (SSSA), American Society of Agronomy (ASA), Crop Science Society of America (CSSA)	Oct 29 - Nov 1, 2023	St. Louis, Missouri
Entomological Society of America (ESA)	November 5-8, 2023	National Harbor, MD
National Alliance of Independent Crop Consultants (NAICC)	January 15-21, 2024	San Antonio, Texas
Weed Science Society of America (WSSA)	January 22-25, 2024	San Antonio, Texas



NAICC Makes marketing simple with Field Research Capability Poster Session

The Field Research Capability Poster Session allows participants to showcase their capabilities to anyone interested in contracting work. The National Alliance of Independent Crop Consultants (NAICC) created this marketing opportunity for contract researchers, consultants, labs, and QAs offering field research or support services. The poster session is held in conjunction with the 2024 NAICC Annual Meeting & Ag Pro Expo. You can find more information (including registration) [HERE](#).



ARM 2023.3 Features and Enhancements

Run "Check for Updates" to take advantage of the latest developments! Find release notes on the [website](#).

NEW Data reliability shortcut buttons on assessment data column headers

Communicate what assessments to use in summaries:

- **Exclude** = conclusions should not be made from this assessment column
- **Good** = conclusions can be made from this assessment column
- **Best** = conclusions can be made, prioritized over related assessments

Rep	Blk	Col	Plot	Trt	1	2	3
1	1	1	101	2	68	72	24
1	1	2	102	4	55	73	19

Exclude Good Best

NEW Site Description tab: Greenhouse

Use to document environmental conditions daily throughout the study.

Note: field trials should still use the Weather tab.

Site Description															
Greenhouse Information															
Insert row with Shift+F7, Delete current row with Shift+F8															
No.	Greenhouse ID	Date	Light Intensity	Light Intensity Unit	Hours of Light	Min Temp	Max Temp	Temp Unit	Min % Relative Humidity	Max % Relative Humidity	Irrigation Type	Irrigation Type Description	Irrigation Frequency	Irrigation Duration	Irrigation Duration Unit
1.															



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A few minutes a day will expand your ARM knowledge.



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Custom Analysis Tool: Planned Comparisons (Contrasts)

Define comparisons of specific treatments for custom analysis using contrasts (statistical tests on linear combinations of values derived from data).

Common uses:

- Compare a treatment to more than 1 check or standard products
- Multi-factor designs (e.g. compare treatments 1-3 vs. treatments 4-6 vs. treatments 7-9)
- Focus analysis on specific treatments without excluding data

Include in **AOV Means Table Report** by selecting "Include planned comparisons" in Report Options.

For each planned comparison:

- contrast value and test statistic
- P-value of comparison hypothesis

If significant (<0.05), reject H_0 and conclude there is a difference between compared treatments.

Types of comparisons:

- Constant - compare one treatment to a specified value/constant
- Paired - a 1:1 comparison of one treatment to another
- Averaged - compare a treatment against the average of >1 other treatment
- Pairwise - compare all treatments to each other
- Multiple comparisons - logical AND to combine 2+ comparisons into a single test

For more examples and statistical details, click [HERE](#).

Steps to define comparisons:

1. Settings > Statistics Tab
2. Pencil icon opens wizard
3. Select type of comparison, then define components to compare

Report Options | Descriptive Statistics | General Summary | Report Preview

Mean comparison test

Test: Student-Newman-Keuls

☐ Beside mean ☒ Under mean

Treatment comparisons

☒ Include planned comparisons

☐ Exclude untreated treatment(s) from analysis

Character Rated Rating Type	Cadence	Speed	Stride Length
Rating Unit/Min/Max		m/s, -, -	m, -, -
Number of Subsamples	14	14	
Trt No.	Treatment Name		
1	Fast 2	89.55 -	3.36 -
6	Zoom Elite	90.03 -	3.36 -
Planned Comparisons			
Traditional vs Fulcrum			
Estimate	-0.151	0.032	0.026
t Value	-0.578	1.072	1.632
Pr > t	0.569	0.297	0.118
Traditional vs Newton			
Estimate	0.136	0.005	0.000
t Value	0.424	0.148	-0.003
Pr > t	0.676	0.884	0.998
Excluding Zoom Elite			
Mean square	0.698	0.004	0.002
F value	1.706	0.735	1.372
Pr > F	0.175	0.575	0.267



GDM Representative Spotlight: Bernd Stratmann

With clients in nearly 100 countries worldwide, we depend on our representatives to provide local training, sales, and technical support. Bernd Stratmann joined our team in 2001 and serves several European countries. With 30+ years of ARM experience, Bernd utilizes his industry knowledge to help his clients maximize efficiency with ARM software.

Learn more about Bernd [HERE](#).



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