

ARM

by Gylling Data Management, Inc.

The Software Solution for Your Research Data Needs

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Why Use ARM Software?

- The ARM is software for **establishing**, **managing**, and **summarizing** of herbicide, insecticide, fungicide, seed/variety, fertilizer, general non-chemical, nematicide, and plant growth regulator research on single field or greenhouse trials.
- Managing plant science research data saves time throughout the research season while creating trials, collecting and analyzing data. ARM produces the reports required for successful and timely trial management. Summary reports include integrated statistical analysis that automatically selects appropriate analysis of variance according to selected statistical design.
- Respected standard throughout crop protection industry in over 70 countries, many companies and hundreds of universities.

ARM author worked with crop protection researcher more than twenty years, and understands research needs. We encourage client questions and ideas as GDM does not charge for our support. Many ARM features are suggestions from our current clients.

ARM Overview

- Trial Size: Up to 999 treatments, assessment data columns, and subsamples per trial
- Randomize and appropriately analyze trials as randomized complete block, completely random, split block by application, Latin square, non-randomized, factorial, split-plot, and strip-block
- Transform data using built-in arcsine square root, log, Abbott's % of Untreated, Henderson-Tilton or square root transformations. Average, Count, and Sum Subsamples functions automatically ignore missing data.
- Multi-language: US English, International English, French, German, Italian, Spanish, Portuguese, Polish, Korean, Japanese.
- Optionally conduct under GLP/GEP compliance
- Wide variety of reports with many report options to print to paper, screen, Excel, Word Processor, Adobe PDF or File.

The screenshot displays the ARM software interface. On the left is a tree view of trial components. The 'Summary' folder is expanded, showing various report options. On the right, a 'Print to' dialog box is open, showing options for printing to Excel, Word Processor, Adobe PDF, or File. Below that, the 'Site Description Report Options' dialog box is open, showing settings for printing and compression.

Trial Tree View:

- Protocol
 - Trial
 - Assessment Footnotes
 - Data Collection
 - Data Verification
 - Labels
 - Map
 - Other
 - Product Amount Totals
 - Schedule
 - Signs
 - Site Description
 - Spray/Seeding Plan
 - Status Report
 - Summary
 - Assessment Data Summary
 - ADV Means Table
 - Factorial ADV Table
 - Correlations
 - Dose-Response Analysis
 - Standardized Summary
 - Tour Report
 - Treatment LST Comments
 - Trial Audit Trail
 - Trial Comments
 - Trial Map
 - Trial Treatments

Print to Dialog:

RTF format: Columns as tables, Tab separated columns, Locked objects

Print to: , , ,

Site Description Report Options Dialog:

Global - General | Global - Page Heading | Global - Borders

Site Description | Site Description Page Setup

Empty fields: Print blanks, Print nothing

Field prompts: Bold print, Skip for empty fields

Compression: Compress report
Compresses out blank lines only when set to "Print Nothing" and "Skip for Empty Fields."

Print selected sections

List validation comments: Comment 1 (dropdown)

Keep with previous page

Gylling Data Management

An assessment of the efficacy of TUB and other fungicides for the control of Septoria Diseases in winter wheat

Trial ID: G-A117_Fung Protocol ID: G-A117_Fung
 Location: Gembloux Study Director: R.E. Cearch
 Investigator: Your Name

Pest Code	SEPTTR	ZZYYFY	TRZAW	G
Crop Code	TRZAW	TRZAW	TRZAW	
Part Rated	LEAF2 P	LEAGRE P	GRAIN C	
Rating Date	Jul-2-2008	Jul-15-2008	Aug-7-2008	Au
Rating Type	CONTRO	AREA	YIELD	
Rating Unit	%UNCK	%AREA	KG	
Days After First/Last Applic.	78 29	91 7	114 30	
Trt-Eval Interval	29 DA-B	11 DA-C	30 DA-C	
Trt Treatment	Rate	Appl		
No. Name	Rate	Unit	Code	
1 Untreated Check		ABC	8	9
2 TUB	0.5 l/ha	ABC	88.74 ab	22.50 ab
3 TUB	1 l/ha	ABC	95.62 a	33.00 a
4 TILT 250	0.5 l/ha	ABC	85.11 ab	29.00 ab
5 MICO 60	1.5 l/ha	ABC	74.09 b	17.50 ab
LSD (P=.05)			12.750	19.667
Standard Deviation			8.275	12.765
CV			12.04	61.07
Bartlett's X2			6.963	12.131
P(Bartlett's X2)			0.073	0.016*

AOV Means Table Report Options

Pre-mix Ingredient | Fields to Print | Global - General | Global - Page Heading | Global - Borders

AOV Means Table Report Options | General Summary | General Summary Page Setup

Mean comparison test
 Test: Student-Newman-Keuls
 Significance level: 5%

Use FAOV complete error for split-plot trials
 Only when significant AOV treatment P(F)

Mean descriptions
 Minimum and maximum
 Standard deviation
 Arranged: Beside mean Under mean

Descriptive statistics
 LSD (or HSD if Tukey's)
 Coefficient of variation (CV)
 Standard deviation
 Grand mean
 Bartlett's homogeneity of variance
 Friedman's method for randomized blocks
 Exclude untreated treatment(s) from analysis

Mean sorting
 None
 Ascending
 Descending
 Print one sorted mean column per page

Calculated %s
 Reported decimals
 0 (95%)
 1 (95.3%)
 2 (95.37%)
 Print untreated value from original data column for calculated % relative (Abbott) values

AOV Table
 None
 Brief
 Full

Gylling Data Management, Inc.

Determination of the efficacy and lowest effective dose rate of HERB 1 against monocotyle and volunteer grass weeds in Winter Rape when applied in Spring

Trial ID: G-A117_Herb Protocol ID: G-A117_Herb
 Location: GERMANY Study Director: R.E. Cearch
 Project ID: Investigator: Your Name
 Sponsor Contact:

Trt	Trt Code	Trt Description
1	1	Untreated Check
2	2	HERB 1 50 g AI/ha A
3	3	HERB 1 80 g AI/ha A
4	4	HERB 1 100 g AI/ha A
5	5	STANDARD 125 g AI/ha A

401	402	403	404	405
5	4	3	1	2
301	302	303	304	305
3	2	1	5	4
201	202	203	204	205
5	4	3	1	2
101	102	103	104	105
4	2	5	3	1

Spray/Seeding Plan Report Options

Product Amount Totals | Pre-mix Ingredient | Fields to Print | Sort

Global - General | Global - Page Heading | Global - Borders

Spray/Seeding Plan | Spray/Seeding Plan Page Setup

Product amounts based on
 Mix size
 Area of one 'Plot' experimental unit
 Area of one treatment

Application code
 Sort by
 Print selected

Expanded page header
 Large 'Plot' experimental unit numbers
 List calculation equations
 List product amount totals...
 Include all application codes in study
 Include only selected application codes
 Weigh liquid formulations (requires density)

Options...

Gylling Data Management, Inc.

An assessment of the efficacy of TUB and other fungicides for the control of Septoria Diseases in winter wheat

Trial ID: G-A117_Fung Protocol ID: G-A117_Fung
 Location: Gembloux Study Director: R.E. Cearch
 Investigator: Your Name

Reps: 4 Plots: 2.5 by 10 meters
 Spray vol: 200 l/ha Mix size: 2.15 liters (min 2.1502)

Trt No.	Treatment Name	Form Conc	Form Unit	Fom Type	Rate Rate	Appl Unit	Spray Code	Volume Unit	Mix Size	Mix Unit	Amt to Measure	Product	Plot No. Rep. 1	2	3	4
3	TUB	250	G/L	EC	1	l/ha	ABC				10.75 ml/mx		101	202	301	402
1	Untreated Check						ABC						102	205	303	401
4	TILT 250	250	G/L	EC	0.5	l/ha	ABC				5.375 ml/mx		103	204	305	404
2	TUB	250	G/L	EC	0.5	l/ha	ABC				5.375 ml/mx		104	201	302	403