





## **Our Mission**

“Provide the research community technology to improve efficiency and accelerate innovation”

**ARM Software is Trusted by Over 10,000  
Researchers and Scientists Worldwide**





Use ARM for all stages of an experiment.

To **plan and create** protocols, to **randomize and manage** trials, to **analyze data and report** the results.



ARM software provides a defined structure to enter information consistently, with master list dictionaries to standardize vocabulary, and has tools for every step of an experiment.





# The Last Year in Review





# ARM the Industry Standard

The top 12 Agro-Chemical companies now depend on ARM Software worldwide.

# Field License Bundle

This bundle brings ARM to the field to help improve efficiency and accuracy.



# Leaf Wall Area

Software solution for an industry specific challenge. ARM facilitates the research techniques for future regulation of product applications.





# Weather Data Import

Collaboration with ClearAg (Iteris) to build a new feature that allows you to import weather data.

ClearAg offers specific information by utilizing meteorology, agronomy, land surface modeling and crop production at specific GPS coordinates.



## **Marketing & Support**

We hired a full-time sales and marketing associate to focus on our client communications.

# The Year Ahead



CUSTOMER  
FRIENDLY  
SUPPORT  
INNOVATIVE  
POSITIVE  
PRECISE  
TIMELY



## Training Initiatives

Continue to expand our tools and resources to make it easier for our clients.

- Tutorials
- Coaching Events
- Webinars

# Product Release

Work as a team to ensure every client is aware of the new features and how to use them to make their work more efficient.



# Precision Ag

Work closely with South Dakota State University to provide support with development and implementation.

- Correlation of known variability
- UAV data analysis





# Client Driven Development

Working closely with our clients to implement additional features and intuitive reporting.

Providing new features throughout the year.



ARM improves efficiency, increases accuracy, and promotes better quality of results.



# ARM 2019 Enhancements

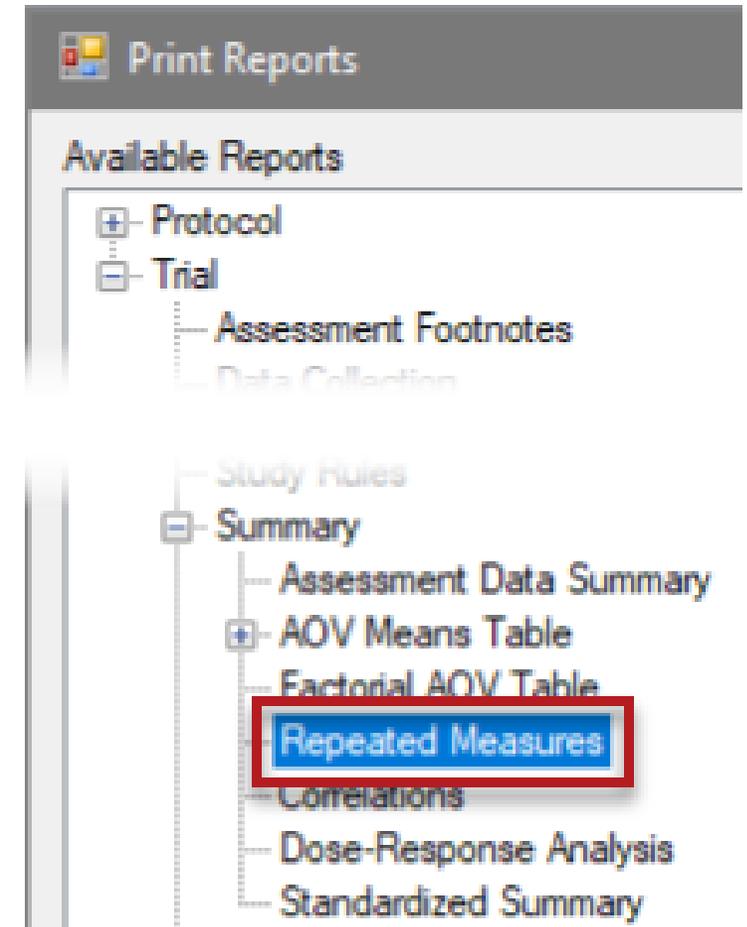
# Repeated Measures

# Repeated Measures

## Analyze repeated assessments across time

### Enhancement

- Powerful statistical analysis which enable the control of factors which cause variability between treatments over time.
- Provides analysis of treatment means over time to determine if there is an overall time effect on the treatments performance.



# Repeated Measures

## Define assessments for analysis:

1. Select a column to find potential repeated assessments.
2. ARM proposes fields to match other columns.
3. Diagnose issues with column selection.
4. Or load from history of column matches.

Assessment Data - Line 1

Column Number	1	2	3	4	5
Pest Type	Disease	Disease	Disease	Disease	Disease
Pest Code	ERYSGT	ERYSGT	ERYSGT	ERYSGT	ERYSGT
Pest Name	Powdery mildew of whe	Powdery mildew o			
Crop Code	TRZAW	TRZAW	TRZAW	TRZAW	TRZAW
Crop Name	Winter wheat	Winter wheat	Winter wheat	Winter wheat	Winter wheat
Rating Date	Jun-8-2014	Jun-22-2014	Jul-5-2014	Jul-19-2014	Aug-3-2014
Part Rated	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P
Rating Type	COUDIS	COUDIS	COUDIS	COUDIS	COUDIS
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
Number of Subsamples	1	1	1	1	1
ARM Action Codes					

Define Data Column Matches for Repeated Measures

Heading	Matched Fields	Warnings:	Previous column matches												
Pest Code	ERYSGT	<p>Selected assessments have inconsistent intervals of 14, 13, 14, 15 days.</p> <p>Instructions</p> <ul style="list-style-type: none"> <li>Modify the matched columns by clicking a new column to match, selecting a previous match or editing the 'Matched Fields'.</li> <li>Click 'View Selected' to view only the selected columns.</li> <li>Click 'Next' to continue.</li> </ul>	<p>Selected column fields</p> <table border="1"> <thead> <tr> <th></th> <th>Repeated Measure</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Pest Code=SEPTTR; Rating Type=PESSEV; Rating Unit=%</td> </tr> <tr> <td>2</td> <td>Pest Code=ERYSGT; Rating Type=COUDIS</td> </tr> <tr> <td>3</td> <td>Pest Code=ERYSGT; Rating Type=COUDIS</td> </tr> <tr> <td>4</td> <td>Pest Code=PHYTHB; Crop Code=ZEAMD; Rating Type=DILOGR; Rating Unit=%</td> </tr> <tr> <td>5</td> <td>Pest Code=ERYSGT; Rating Type=COUDIS; Rating Unit=PERCENT</td> </tr> </tbody> </table>		Repeated Measure	1	Pest Code=SEPTTR; Rating Type=PESSEV; Rating Unit=%	2	Pest Code=ERYSGT; Rating Type=COUDIS	3	Pest Code=ERYSGT; Rating Type=COUDIS	4	Pest Code=PHYTHB; Crop Code=ZEAMD; Rating Type=DILOGR; Rating Unit=%	5	Pest Code=ERYSGT; Rating Type=COUDIS; Rating Unit=PERCENT
	Repeated Measure														
1	Pest Code=SEPTTR; Rating Type=PESSEV; Rating Unit=%														
2	Pest Code=ERYSGT; Rating Type=COUDIS														
3	Pest Code=ERYSGT; Rating Type=COUDIS														
4	Pest Code=PHYTHB; Crop Code=ZEAMD; Rating Type=DILOGR; Rating Unit=%														
5	Pest Code=ERYSGT; Rating Type=COUDIS; Rating Unit=PERCENT														
Crop Code															
Rating Date															
Part Rated															
Rating Type	COUDIS														
Rating Unit	PERCENT														
ARM Action Codes															

Clear Columns matched: 1-5

View Selected Next Cancel Graph Options... Help

# Repeated Measures

Means and comparison letters for:

- Treatments Rating Dates
- Treatment x Rating Date interaction

Apply correction to adjust for correlation (H-F-L or G-G)

Repeated Measures AOV table

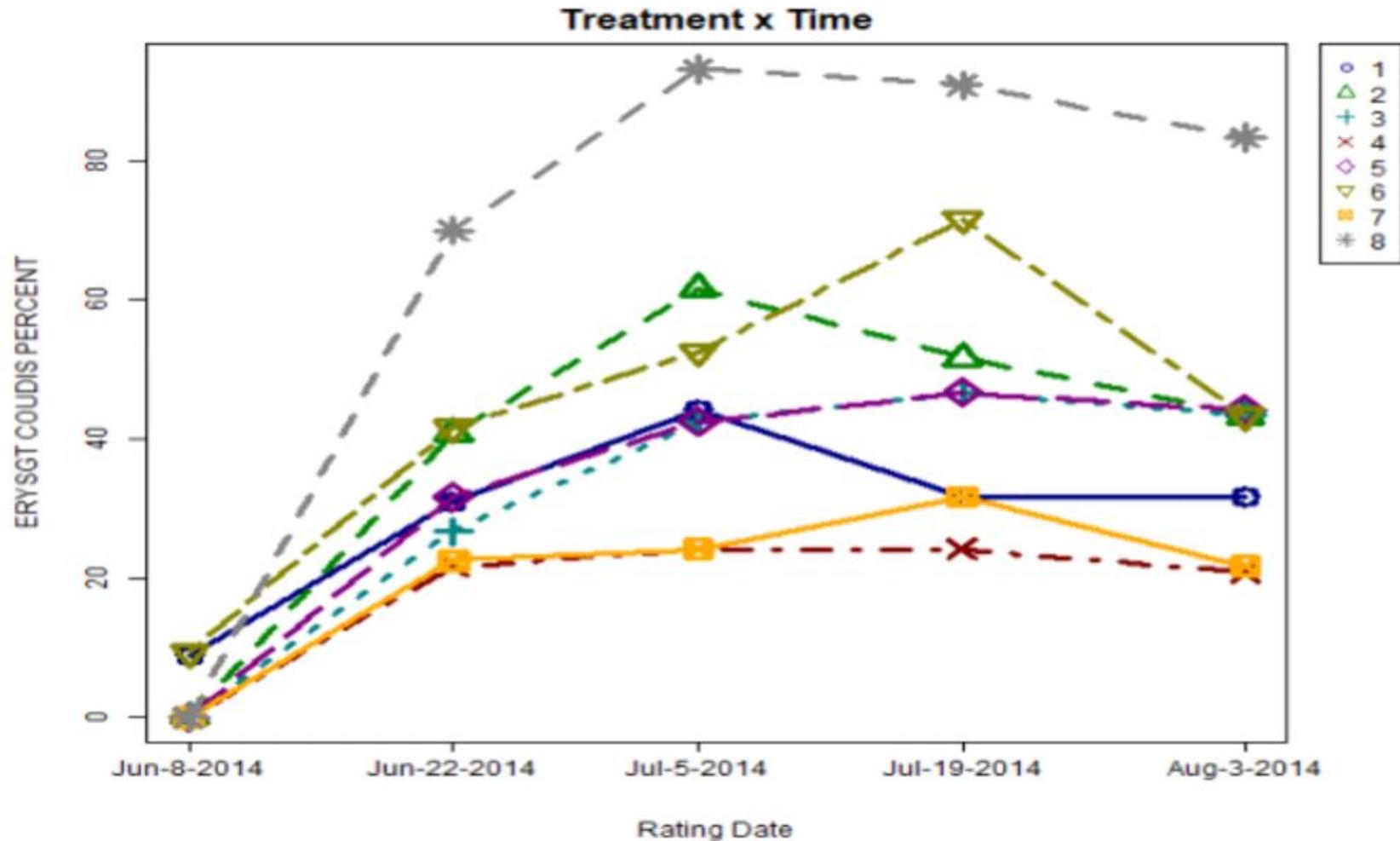
REPEATED MEASURES AOV For D ERYSGT Blumeria graminis tritici Powdery mildew of wheat TRZAW							
PLANT P COUDIS PERCENT 1							
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	HSD (.05)	Variance
Total	220.0	141626.962500					
Replicate	5.0	65.637500	13.127500	3.127	0.0195		0.223238
Treatment	7.0	51065.995833	7295.142262	1737.776	0.0001	1.70	
Treatment Error	35.0	146.929167	4.197976				-0.246155
Rating Date	3.6	71570.358333	17892.589583	3295.895	0.0001	1.31	
Treatment x Rating Date	25.1	17909.441667	639.622917	117.821	0.0001	5.35	
Error/Residual	143.6	868.600000	5.428750				5.428751

Pest Code	ERYSGT			
Pest Name	mildew of wheat			
Crop Code	TRZAW			
Crop Name	Winter wheat			
Part Rated	PLANT P			
Rating Type	COUDIS			
Rating Unit	PERCENT			
Number of Subsamples	1			
Trt No.	Treatment Name	Rate	Appl Code	
TABLE OF Treatment MEANS				
1	Sure Kill	3 lb ai/a	A	29.4 f
2	Sure Kill	3 lb ai/a	A	39.5 c
3	Sure Kill	3 lb ai/a	A	31.8 e
4	Sure Kill	3.5 lb ai/a	A	18.2 h
5	Sure Kill	3 lb ai/a	A	33.0 d
6	Sure Kill	4 lb ai/a	A	43.7 b
7	Super Stomp	2.5 lb ai/a	A	20.0 g
8	Untreated			67.5 a
Error DF Correction (H-F-L)				
Tukey's HSD P=.05				1.70
Standard Deviation				2.05
CV				5.79
TABLE OF Rating Date MEANS				
1	Jun-8-2014 (Data Col 1)			2.3 e
2	Jun-22-2014 (Data Col 2)			35.7 d
3	Jul-5-2014 (Data Col 3)			48.1 b
4	Jul-19-2014 (Data Col 4)			49.4 a
5	Aug-3-2014 (Data Col 5)			41.5 c
Error DF Correction (H-F-L)				
Tukey's HSD P=.05				0.90
Standard Deviation				1.31
CV				2.33
6.58				
TABLE OF Treatment Rating Date MEANS				
1	Sure Kill	3 lb ai/a	A	8.8 o
1	Jun-8-2014 (Data Col 1)			
2	Sure Kill	3 lb ai/a	A	0.0 p
2	Super Stomp	1.5 lb ai/a	A	

# Repeated Measures

## Treatment x Time Graph

- Plot treatment means over time.
- Visually identify treatment interaction across assessment dates.

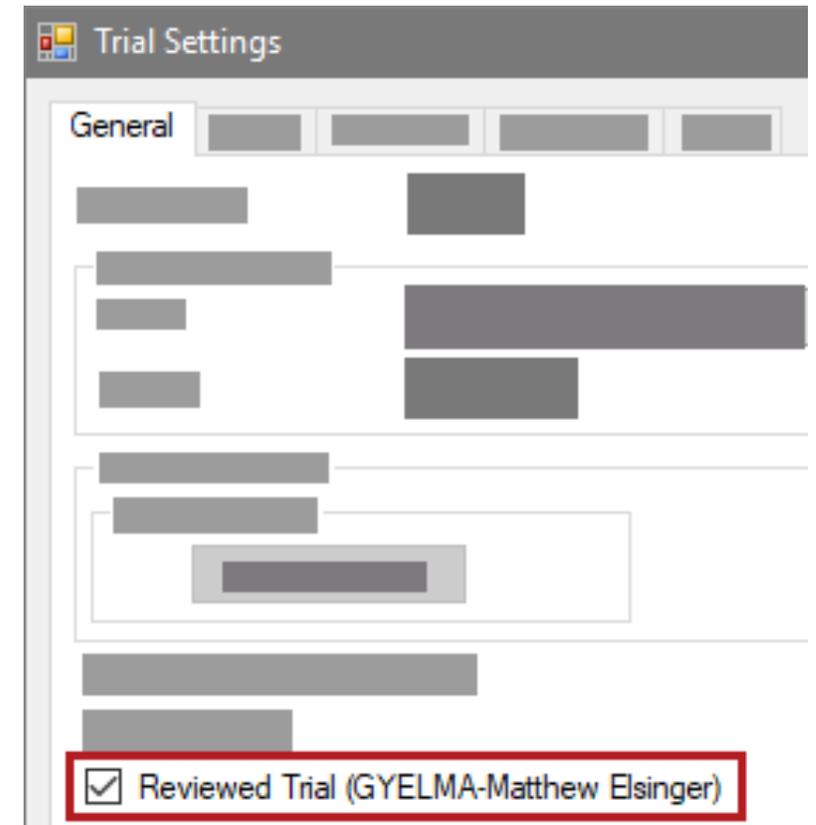


# Study Review

# Review Study

## Mark a trial as Reviewed

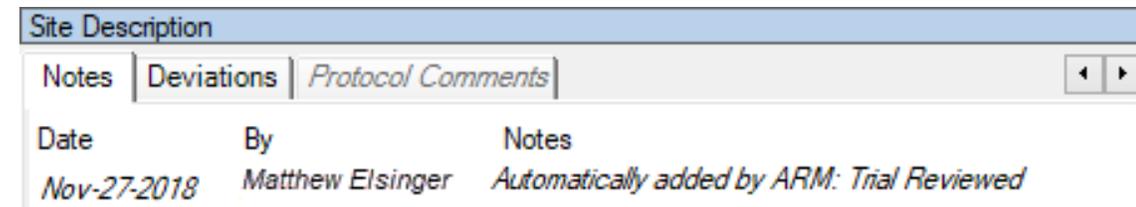
- Track whether a trial has been reviewed
- Identifies who marked as reviewed
- Trial Settings > General tab
- 'Trial Reviewed' action is automatically logged in Notes tab of Site Description
- Checkbox is cleared when any change is made to data in the trial



Trial Settings

General

Reviewed Trial (GYELMA-Matthew Elsinger)



Site Description

Notes | Deviations | Protocol Comments

Date	By	Notes
Nov-27-2018	Matthew Elsinger	Automatically added by ARM: Trial Reviewed

# Review Study

## Create a review group

- 'Review' study rule defines who is allowed to mark a trial as reviewed
- **Condition** field defines who to include in the group:
  - just protocol or trial owner(s)
  - everyone in my company
  - Anyone (i.e. no group)
- Example: Sponsor wants to ensure the study is reviewed internally. Contractor can still create their own separate review group to review before sending back to the sponsor by adding another 'Review' rule for their company.

Study Rules - Rule 1 of 1				
Rule	Rule ID	Editor	Field	Condition
1	Review	Trial	Trial	Everyone in my company

# Study Rules

# Study Rules

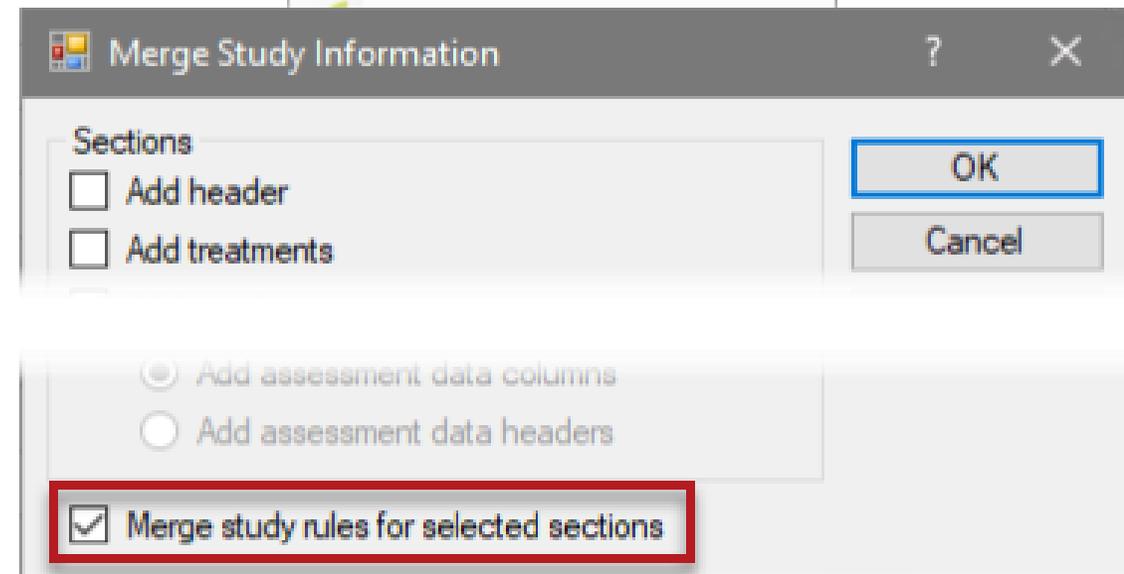
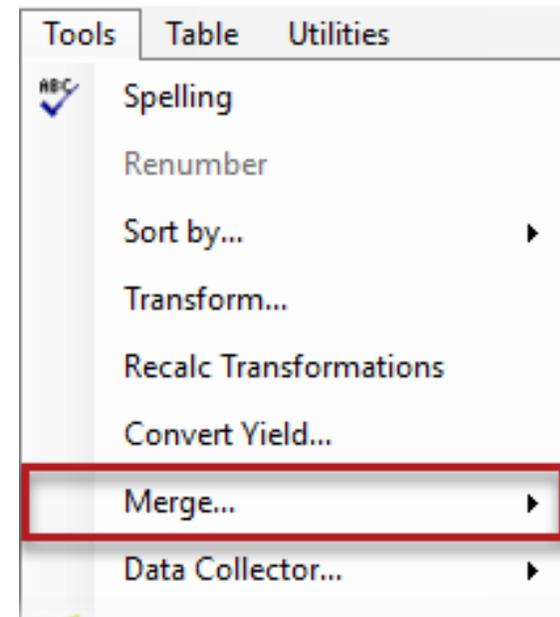
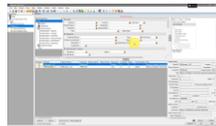
## Merge Study Information

- Easily copy information from study to study.
- Replaces “Save As” function.

## Enhancement

- Choose to *not* merge study rules if the study is originated by your company.
- Offers new flexibility for internal researchers.

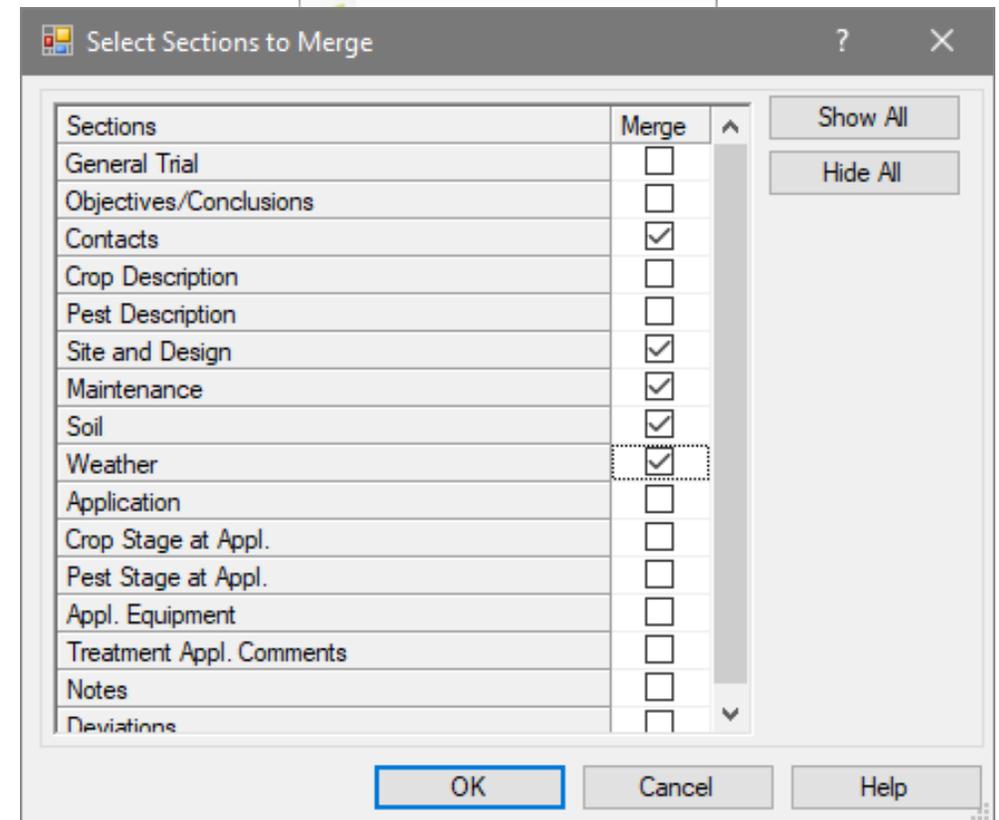
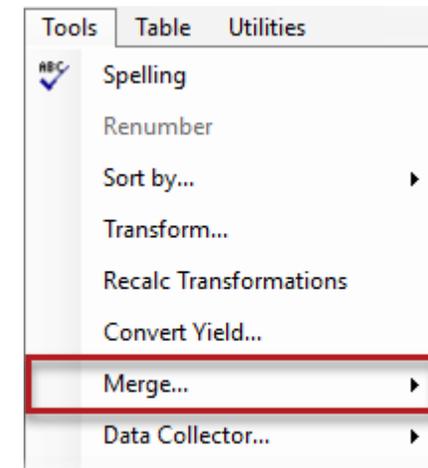
## Feature in action



# Merge Study Rules

## Enhancement

- Limit study rules merged to only selected protocol/site description sections.



# Validation

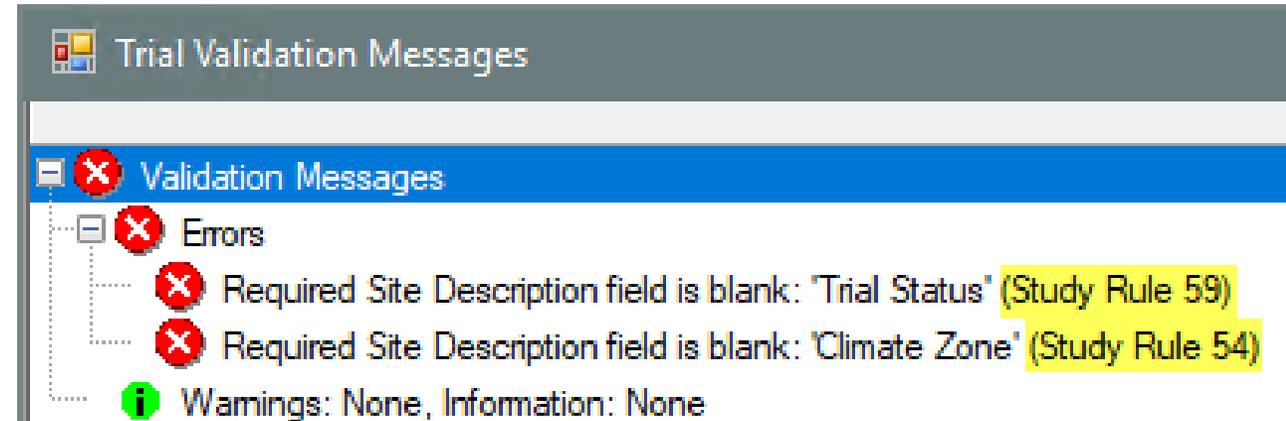
## Always Validate Studies

- Validation ensures all protocol criteria has been met.

## Enhancement

- Validation messages now list the study rule number that triggered the error or warning message.

## Feature in action



# Rule Set

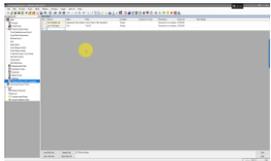
## Rule Set Name Identification

- Identifies/Verification of the correct rule set used within study.

## Enhancement

- The name of the loaded rule set now displays in the editor heading when a rule is selected within the table.

## Feature in action



Study Rules - Rule 2 of 4		Rule Set: hiddenFldsGDM		
Rule	Rule ID	Editor	Field	Condition
1	Limit validation list	Assessment Data Header	Crop & Pest in Site Description	Always
2	Hidden Field	Header	Trial Title Line # 2	If not in my company
3	Hidden Field	Treatments	Description	If not in my company
4	Hidden Field	Treatments	Comment 2	If not in my company

# Tools

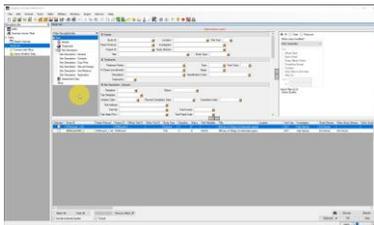
# Tools: Merge

Existing blank treatments are automatically removed when performing a merge with another study.

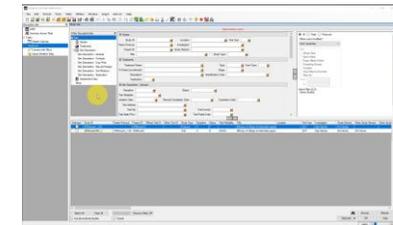
Treatments - Line 1						
Trt Line	Trt No.	Type	Treatment Name	Form Conc	Form Unit	Form Type
1	1					
2						
3						
4						



Treatments - Line 1						
Trt Line	Trt No.	Type	Treatment Name	Form Conc	Form Unit	Form Type
1	1	CHK	Untreated Check			
2	2	HERB	Banvel 720	348	GAL	L
3	3	HERB	FallowMaster	251.999985	GAL	SC
4	4	HERB	Marksman	384	GAL	F



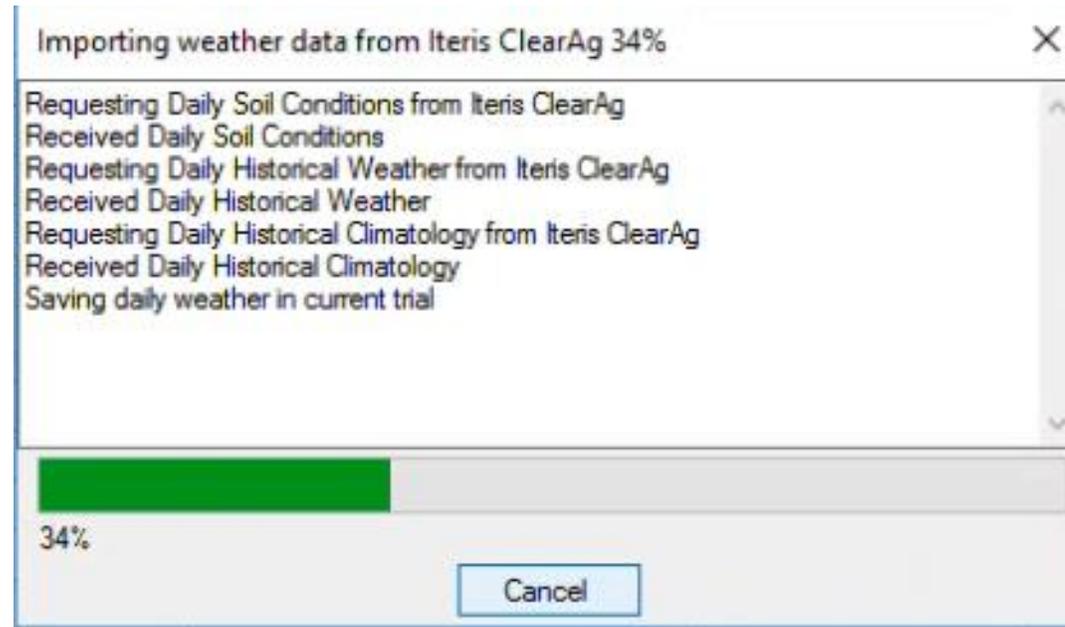
<- Before and After ->



# Tools: Import Weather

## Progress bar added during Weather import

- The weather is imported from outside the ARM software.
- This ensures you know that progress is being made 😊.

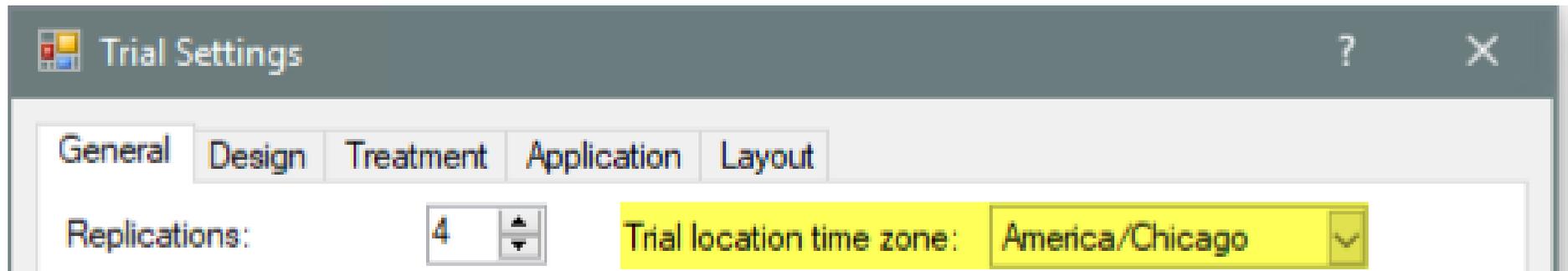


# Study Settings

# Trial Time Zone

## Why is a specific time zone needed?

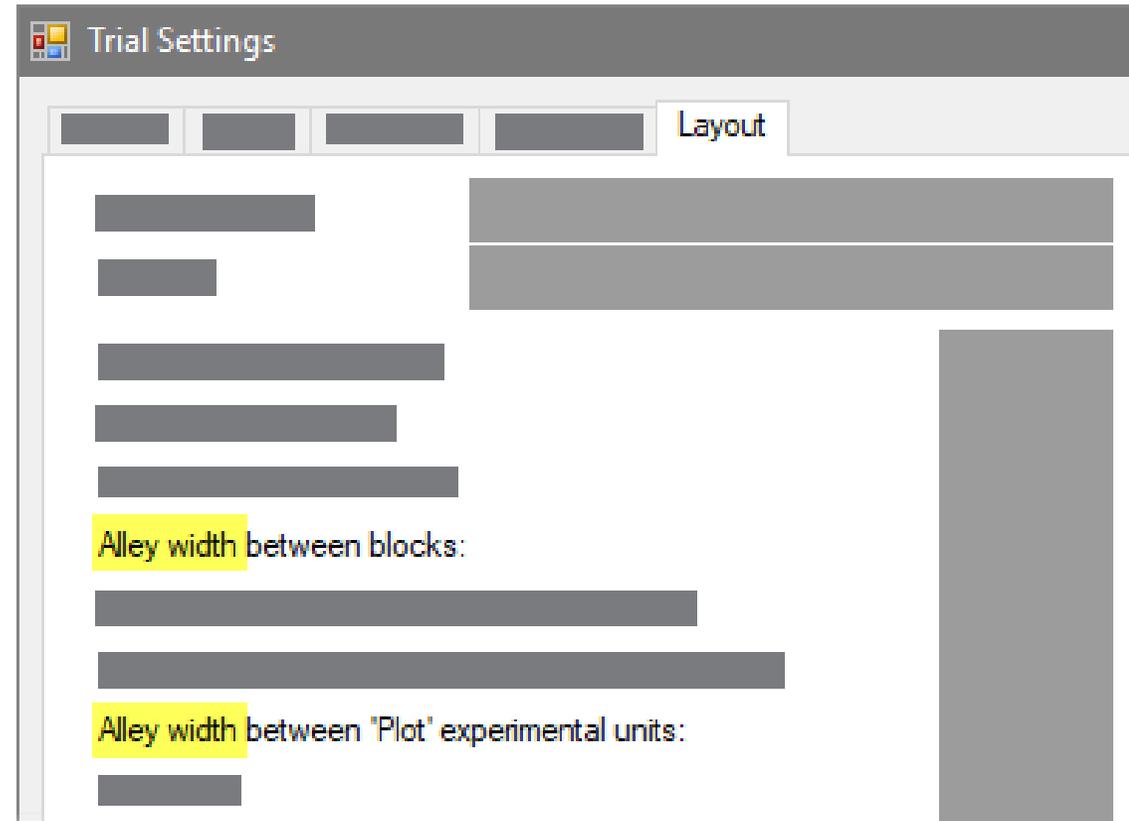
- Ensure the alignment of the trial location in relation to time zone to external data providers.
  - New Weather API will align location specific weather for a particular time, such as per application.
- Trial Settings > General tab



# Layout Options

## Clarified 'buffer' option text

- Changed to 'Alley width' - a more commonly used term
- Previously called 'Buffer' between blocks or plots
- Protocol/Trial Settings > Layout tab

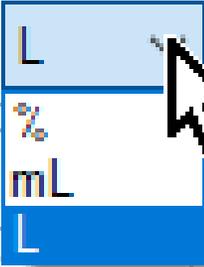


# New Options - Liters

## Liters as an Overage Option

- Clients may have equipment that requires a very large amount of overage. Instead of using ML's (1000's), you now have the option of Liters. Example: 2150ML vs, 2.15L.
- Can be entered in the Settings > Application tab or, Appl. Equipment > Mix Overage, Unit or, Application Plan.

Mix size

Treatments	1
Replications	4
'Plot' EU size	25 m2
Application volume	20 L/ha
Mix size unit	mL 
Minimum	200 mL
Overage:	<input type="text" value="2.15"/> 
<input checked="" type="radio"/> Calculated mix size	2350 mL
<input type="radio"/> User-defined mix size	<input type="text" value="2.15"/>

# Mix Size Units

## Enhancement

- Brings consistency to the unit names whether you are in the treatments editor, settings, or application plan.
- Settings > Application tab
- Appl. Equipment > Mix Overage, Unit or, Application Plan

Trial Settings

General Design Treatment Application Layout

Application volume: 200 L/ha Application Plan...

Application volume	200 L/ha
Mix size unit	L
Minimum	2 L
Overage:	150 mL
Calculated mix size	2.15 L

2 L based on 1 trts; 4 reps; 25 m2 'Plot' experimental unit size; 200 L/ha volume

Mix Size Unit Master List (MIX\_SIZE\_UNITS)

Mix Size Unit	Description 1	Description 2
FT3	cubic feet of mix	quantity of soil or media to treat
g	grams of mix	for preparing a granule or dry carrier
g seed	grams of seed	quantity of seed to treat
GAL	gallons of mix	for liquid sprays using a diluent
kg seed	kilograms of seed	quantity of seed to treat
L	liters of mix	for liquid sprays using a diluent
LB seed	pounds of seed	quantity of seed to treat
m3	cubic meters of mix	quantity of soil or media to treat
mL	milliliters of mix	for liquid sprays using a diluent
seeds	seeds (for /seed rate units)	for seed treatment studies when rates are /seed or /unit
units	units of seeds (for /unit rate units)	when treatment rates are /unit, /plant, /n plants, /item, or /seed
YD3	cubic yards of mix	quantity of soil or media to treat

(All) (All) (All)

Active Filter Remove Filter Display Personal Add to Personal OK

# Site Description

# Track Trial Progress\*

## Why document trial progress?

- Requested by sponsors.
- Provides visibility and credibility to timely data entry.
- Added new fields to track status and progress throughout the season.

### General Trial Information

Discipline:	H	herbicide	Data Location:	
Trial Status:	E	established	Trial Reliability:	
Trial Usage/Type:	SCR	Screening/Exploratory	ARM Trial Created On:	Sep-19-2018
Initiation Date:	Sep-19-2018		Planned Completion Date:	Aug-19-2014

### Pest Description

Insert Pest with Shift+F7, Delete current Pest with Shift+F8

Pest 1 Type:	W	Code:	GGGAN	Annual grasses	Entry Date:	Jul-20-2018
Common Name:			Annual grasses			
Attributes:						

# Track Trial Progress\*

Additional new fields to track status and progress throughout the season.

- Application tab > **Appl. Entry Date**
- Assessment Header > **Data Entry Date**

Assessment Data - Line 4	
Column Number	1
Part Rated	LEAF <input type="text"/> C <input type="text"/>
Rating Type	PHYGEN <input type="text"/>
Rating Unit	% <input type="text"/>
Number of Subsamples	1
<b>Data Entry Date</b>	<b>Sep-19-2018</b>
Trt-Eval Interval	7 DA-C

## Application Description

D	
Application Date:	Sep-19-2018 <input type="text"/>
Appl. Start Time:	11:15 AM
Application Method:	SPRAY <input type="text"/>
Application Timing:	POSPOS <input type="text"/>
Application Placement:	BROFOL <input type="text"/>
Applied By:	<input type="text"/>
<b>Appl. Entry Date:</b>	<b>Sep-19-2018</b>
Air Temperature Start, Stop:	19.5 <input type="text"/> C <input type="text"/>

# Protocol Instructions

## Support Rich-Text Formatting

- Preserves the format from the original protocol through to the Trial.

Site Description

Crop Stage at Appl. Pest Stage at Appl. Appl. Equipment Treatment Appl. Comments Notes Deviations Protocol Comments

Site Information

*Provide weather data as follows (min. requirement):  
as from 1 day before application up to the final assessment average, main and max temperature and precipitation on a daily basis. => Data from the nearest weather recording station should be attached as a file in standard format (for example Excel table, Comma or tab separated lists ...) Indicate the distance of the trial site to the weather station*

*Comment on any extreme weather situation in trial comments.  
Mention every irrigation application including all details in the DAT file*

*For assessments follow the Data header information in detail*

Data to Collect

*Do an assessment on general Phytotox at every visit to the trial site. In case any phyto is visible, assess on each of these effects separately (for example smaller leaves and chlorosis). Assessments should be done on frequency and intensity of the symptom. Create an adequate header for these specific assessment. In case of insecurity of the codes to use, make sure to fully verbally describe the type of assessment in the footnote!*

*Assess all effects on any other than the pre-defined target weeds as well as on beneficial insects!*

*Report all other treatments in detail in the "crop maintenance" chapter of the DAT file.*

[Normal] Arial 10 B I U

Provide weather data as follows (min. requirement):

- as from 1 day before application up to the final assessment average, main and max temperature and precipitation on a daily basis. => Data from the nearest weather recording station should be attached as a file in standard format (for example Excel table, Comma or tab separated lists ...) Indicate the distance of the trial site to the weather station
- Comment on any extreme weather situation in trial comments.
- Mention every irrigation application including all details in the DAT file

For assessments follow the Data header information in detail

- Do an assessment on general Phytotox at every visit to the trial site. In case any phyto is visible, assess on each of these effects separately (for example smaller leaves and chlorosis). Assessments should be done on frequency and intensity of the symptom. Create an adequate header for these specific assessment. In case of insecurity of the codes to use, make sure to fully verbally describe the type of assessment in the footnote!
- Assess all effects on any other than the pre-defined target weeds as well as on beneficial insects!

Report all other treatments in detail in the "crop maintenance" chapter of the DAT file.

# Collapsible Repeating Sections

## Fixed:

- Repeating section panels now resize after displaying hidden fields.

The screenshot displays a software interface titled "Site Description" with a tabbed menu. The "Crop Description" tab is active, showing a form for entering crop details. The form is divided into two repeating sections. The first section, labeled "Crop 1", is expanded and contains the following fields: Crop 1 (TRZAW), Variety (Local), Description, Seed Size, Unit, Seed Shape, Plant Shape, Spacing within Row, Unit, Rows per Plot, Planting Density, Unit, Soil Temperature, Unit, Perennial Age, Unit, BBCH Scale (BCER), Maturity Group, Nursery Date, Planting Date (Oct-15-2013), Planting Method (DRILLE), Harvested Width, Unit (1.1 M), Harvested Length, Unit (9 M), Harvest Equipment (COMBINE), % Standard Moisture (15.0), and Plant Arrangement. The second section, labeled "Crop 2", is collapsed. A red rectangular box highlights the collapse bar of the second section, demonstrating the fixed height of the repeating sections.

# Trial Origin\*

## Why track the trial origin?

- Helps answer budget questions.
- Valuable to the R&D division.
- ID's in-house, contracted or by a public institution trials.

Header

Title:

Study Rules

Trial ID: Study Rules

Protocol ID: 123 a 1-5

Location: GERMANY

Investigator: Matthew Elsinger

Study Director: R.E. Cearch

Sponsor Contact: ABC Industries, Inc.

Conducted Under GEP: N

Trial Origin: C contracted trial

### Trial Location

Insert row with Shift+F7, Delete current row with Shift+F8

Trial ID	Responsible	Site	Trial Origin	Number of Trials	Site Requirements
123 a 1-5	R.E. Cearch		C	5	
123 a 6-7	Debra Dooley's Data		I	2	
123 a 8-10	Fred's Quality Data		C	3	

Header editor > Trial Origin or,  
Trial Establishment Guidelines > Trial location Table

# Application Equipment and Plan

## Auto-Fill default settings for application planning fields.

- Intuitive way of using Settings set to default and fill out the plan.

Application Information	
Application Date	<i>Apr-15</i>
Row Sides Applied	
Spray Volume, Unit	250 L/HA
<i>Minimum Mix/Treatment</i>	<i>2.5 liters</i>

## Enhancement

- Auto-fills with default entries when clicking in a blank field for mix size, mix overage and spray volumes.

# Assessment Data

# View Options

Show more than one type of entry when matching on a field.

## How does it work?

Select multiple items for the “Match” column Filter.

Column filter

Prompt	Match	Sort	Visible
Rating Time	(All)		<input checked="" type="checkbox"/>
Rating Type	(All)		<input checked="" type="checkbox"/>
Rating Unit			<input checked="" type="checkbox"/>
Sample Size, Unit			<input checked="" type="checkbox"/>
Collection Basis, Un			<input checked="" type="checkbox"/>
Reporting Basis, Un			<input checked="" type="checkbox"/>

Sort: A↓ Z↑ | OK

- (All)
- AREA
- MOICON
- PESSEV
- PHYGEN
- VIGOR
- YIELD

Display sort as tabs

Clear Show All Hide All

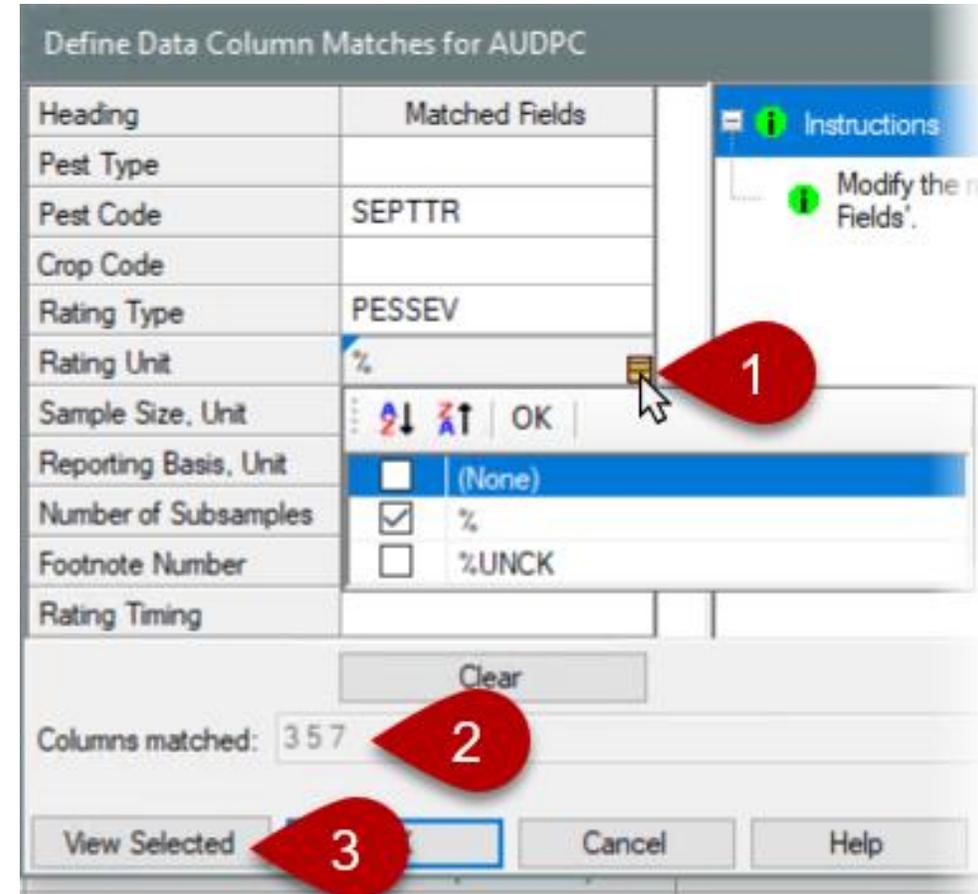
# AUDPC Transformation

## Enhancement during AUDPC

- Allows selecting multiple values for match fields.
- Lists columns currently matched.
- View only selected/matched columns on the assessment data editor.

## Where is this feature?

- Tools > Transform, select AUDPC



# Plot Pictures

## Include Column ID in assessment image file name

- Helpful when attaching images for multiple assessments taken on the same day

## Where is this feature?

- Assessment data editor > Properties Panel > Attach

Image Import Preview

Direction

- By column across 'Plot' experimental unit
- Across columns within 'Plot' experimental unit

Columns: 1

Sort order

- 'Plot' experimental unit
- Assessment
- Treatment
- Harvest

Number of images per 'Plot' experimental unit within an assessment column: 1

Copy to trial folder  Rename image

File name components

- Trial ID: 1
- Plot: 4
- Trt: 2
- Sub: 5
- Asm. Date: 3
- Column ID: 6

Add T, P, S, C (Trt, Plot, Sub, Col) prefix to file name components

G-All7\_Fung\_T0003\_Jul-15-2019\_P101\_C2

Sub	Rep	Col	Plot	Trt	
1	1	1	101	3	1

# Tablet Data Collector (TDCx)

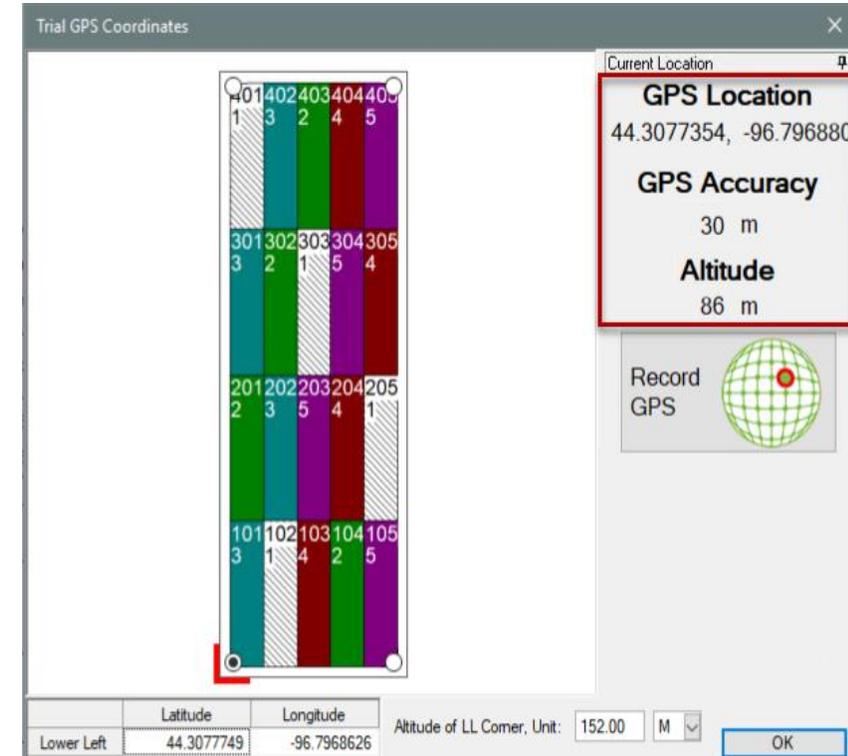
# Record GPS

## Display the current position in real-time

- Researchers now can determine the accuracy of the GPS device while documenting coordinates.
- TDCx will display: GPS coordinates, accuracy and altitude.

## Where is this feature?

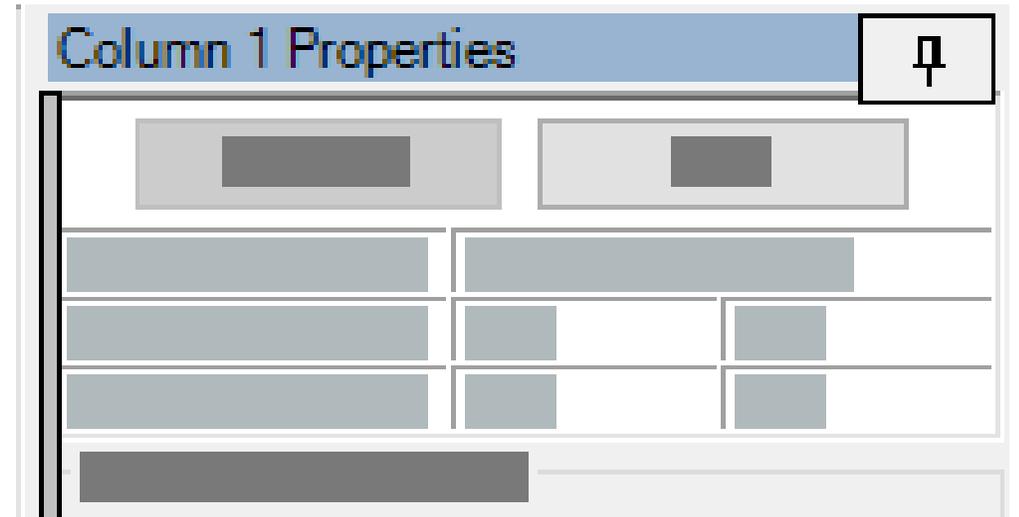
Choose “Tablet Read GPS Editor”



# Properties Panel

## Increased size of Pin button

- Previously was hard to click on the small Pin button to unlock a Properties panel when using a stylus (or finger) on a tablet



# ARM Migration

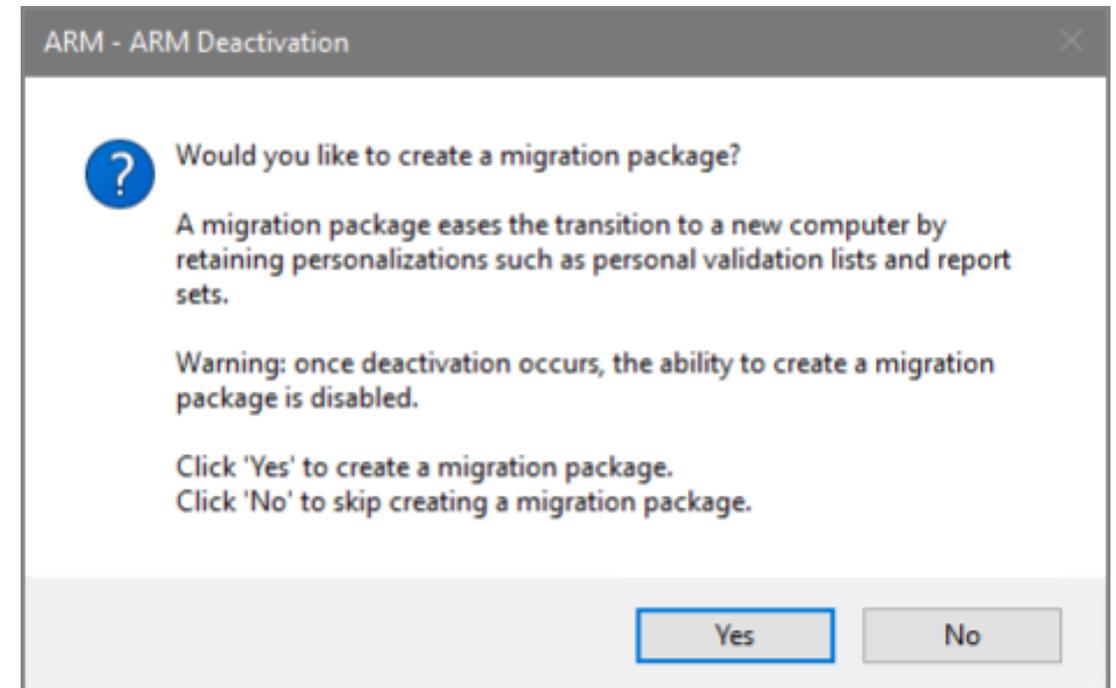
# Migrate Settings\*

## Copy settings when moving to a new PC

- Copy personal lists, report sets, ARM settings to new computer

### What's new?

Prompt to create package *before* deactivating the old PC.



# Reports

# Spray Seeding Plan

## Why minimum mix size calculator?

- This helps determine the minimum mix needed.
- Proactively plan for your trial with this calculation.

Reps: 4      Appl Code: A      Plots: 2.5 by 10 meters  
Spray vol: 250 L/ha      Mix Size: 2.65 L (total for 4 plots; **minimum=2.5 L**, overage=150 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Form Rate	Form Unit	Rate Appl Code	Spray Volume	Volume Unit	Mix Size	Mix Unit	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
3	Tub	250	G/L	EC	1	l/ha	ABC	250	L/HA	2.65	L	10.6 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	250	L/HA	2.65	L	5.3 mL/mx	103	204	305	404
2	Tub	250	G/L	EC	0.5	l/ha	ABC	250	L/HA	2.65	L	5.3 mL/mx	104	201	302	403
5	Mico 60	600	G/L	EC	1.5	l/ha	AB	250	L/HA	2.65	L	15.9 mL/mx	105	203	304	405

## Enhancement

- ARM reports the bare minimum mix size needed to cover the area of all 4 reps.

# SE Definitions

# SE Definitions\*

## Plan and define standard evaluations (SEs) and tasks to use in the study

- Simpler than importing SEs from file into assessment data editor

Use Tools > 'Build Header, Tasks' to create the SEs and tasks defined in this tab

## Multiple rating timings create columns for each timing code

- Two-column SE F097\_C2 times 3 rating timings A1-A3 = 6 total data columns

### SE Definitions

Insert SE Definition with Shift+F7, Delete current SE Definition with Shift+F8

	1.	2.
Rating Timing	A1-A3	H1
SE Name	F097_C2	Y085
SE Description	% of infected leaves (N leaves). TIO[x]* (note: *x = column nb of infected leaves in F097A)	Fresh yield grain in kg / ... m2
Part Rated	LEAF	GRAIN
Rating Type	PESINC	WEIFRE
Rating Unit	%	KG
Sample Size	LEAF	M2
Collection Basis	SHOOT	1 PLOT
Reporting Basis	LEAF	M2
Number of Subsamples		
ARM Action Codes	TIO[1]	
Pest Type, Code		
Crop Code		

# SE Definitions\*

1. Display SE Name list
2. Select an SE, can search/filter descriptions
3. Preview assessment columns defined in SE

Can also define tasks on this tab to add to Schedule editor

Site Description

### SE Definitions

Insert SE Definition with Shift+F7, Delete current SE Definition with Shift+F8

Rating Timing	1.
SE Name	

SE Name Master List (SE\_TABLE)

SE Name	SE Description
F088	% Disease on surface of leaf 1
F089	% Disease on surface of leaf 2
F090	% Disease on surface of leaf 3
F091	% Disease on surface of leaf 4
F092	% Disease on surface of leaf 5
F093_C2	% of infected stems (N stems). (x/N)*100 (note: 'x = column
F094_C3	% of infected pods (n plants) (F094B / F094A)*100
F095_C2	% of infected leaves (N leaves). (x/N)*100 (note: 'x = colum
F096_C2	% of infected leaves (N leaves). (x/N)*100 (note: 'x = colum
F097_C2	% of infected leaves (N leaves). TIO[x]* (note: 'x = column r
F098_C5	% of infected fruits - Disease index: (((F098A)+2*[F098B]+3*[
F099_C5	% of fruits with Russeting - Disease index: (((F099A)+2*[F099
F100_C2	% of infected leaves (N leaves). TIO[x]* (note: 'x = column r
F101_C2	% of infected bunches (N bunches): (x/N)*100 (note: 'x = c
F102_C2	% of infected bunches (N bunches). TIO[x]* (note: 'x = colu
F103	Count of spots per plant

Preview

Column Number	1	2
SE Name	F097A	F097_C2
Part Rated	LEAF	LEAF
Rating Type	PESSEV	PESINC
Rating Unit	%AREA	
Sample Size, Unit	LEAF	LEAF
Collection Basis, Unit	SHOOT	SHOOT
Reporting Basis, Unit	LEAF	LEAF
ARM Action Codes	TIO[1]	

(All) (All)

Active Filter

Remove Filter Display Personal Add to Personal OK Cancel