

# Are you interested in upgrading your research statistical skills?

Would you like to be able to present data in an informative and engaging way, or to start preparing your data for statistical analysis? Do you want to understand more about how the statistics for your project are calculated or what they mean? Have you heard of R but you're not sure how to get started?

SAGI-STH have developed practical workshops for researchers and practitioners in the grains industry to develop statistical skills in a supportive small group environment.

We recommend the courses are taken in the order shown below. You may choose to complete them all in one week or scatter them through the year.

Courses include:

## Introduction to R - 1 day

- Covers the basics of R, using R packages, learning how to produce elegant graphics in R.
- You will learn some tips for preparing and managing your research data.
- You will gain confidence to continue learning and exploring R for yourself.

## Introduction to Experimental Design - 1 day

- You will become familiar with the basics of experimental design
- Practice using R and some relevant packages for real world examples.
- You will learn how to estimate the number of samples you will require.
- A better understanding of why your experiment was done the way it was.

## Statistical Analysis of Agronomic Experiments - 2 days

- Covers the basic topics in experimental analysis of agronomic experiments, including ANOVA, Linear Mixed Models, spatial modelling and analysis of factorial experiments, blocked designs, and split-plot agronomic experiments.
- You will learn to identify the correct model to use and perform analyses of data resulting from standard agronomic designs using R and ASReml-R and interpret the results.

## Report preparation with R: reproducible research - 1 day

- Introduces RMarkdown and report preparation with R, which brings together a report on the design, analysis and graphical presentation in a consistent, all-in-one and reproducible way. This will greatly improve the efficiency of your reporting.

These courses are run by grains industry researchers, for grains industry researchers. Researchers in other agricultural industries are also more than welcome to attend!



For further information contact:  
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Or to check the training schedule visit:  
<http://bit.do/biometryhub>