*Chapter 14 notes* ***for Agri-food research***

Summary from page 379-380

Read the whole two pages of this summary chapter!

*Statistical methods should enable data to answer scientific questions:*

*Ask ‘why am I doing this?’, rather than focusing on which particular technique to use.*

*Signals always come with noise: It is trying to separate out the two that makes the subject interesting.*

*Variability is inevitable, and probability models are useful as an abstraction.*

*Plan ahead, really ahead: This includes the idea of pre-specification in confirmatory experiments – avoiding researcher degrees of freedom*

*Worry about data quality: Everything rests on the data.*

*Statistical analysis is more than a set of computations: Do not just plug into formulae or run procedures in software, without knowing why you are doing so.*

*Keep it simple: The main communication should be as basic as possible – do not show off skills in complex modelling unless they are really necessary.*

*Provide assessments of variability: With the warning that margins of error are generally bigger than claimed.*

*Check your assumptions: And make clear when this has not been possible.*

*When possible, replicate!: Or encourage others to do so.*

*Make your analysis reproducible: Others should be able to access your data and code.*