Can you trust the result?

When you analyze block designs you sometimes realize that the conclusion is very much influenced by one single observation even if this is not an outlier. The thesis will first do an inventory of the different research designs used at Cropping Systems Ecology, then analyze how influenced these are by single observations. Some questions to answer:

- 1) Can the conclusion be different if you add one decimal to all your data?
- 2) Can the conclusion be different if you improve the method and lower the detection limit?
- 3) Can the conclusion be different if one observation is deleted?
- 4) Traditionally you use four or five blocks in the design. Are there designs that should need more blocks?

The thesis will probably use data that is already collected and will therefore mainly focus on theory and literature study combined with simulations in the computer with a statistical package.

In Cropping Systems Ecology, as well as in all research, it is important that you can trust your results and conclusions. This work will investigate the sensitivity for some of the designs used at Cropping Systems Ecology.

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Level: Thesis 10 or 15 hp, B.Sc. 15 hp or M.Sc. 30 hp

Subject: Statistics, mathematical statistics or another relevant subject at SLU