

Designing safe-to-fail trials

How to use this framework: Download or print this template, follow the steps to completion, then stick it on a wall or window where you will see it often!

	Notes			Tips
What is the question you are asking?				
What are you going to test or compare?				
Am I looking for big, moderate or small differences?	Big	Moderate	Small	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<i>Low ----- Need for replication -----> High</i>			
Could results be affected by variation in paddocks or animals?	No	Maybe	Yes	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<i>Low ----- Need for replication -----> High</i>			
How many replicates do you need?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Use these numbers are for soil or plant trials. For animal trials, multiply by 10-30 depending on practicality</i>
	1	3-5	12+	
How many 'controls' do you need?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Use these numbers are for soil or plant trials. For animal trials, multiply by 10-30 depending on practicality</i>
	1	3-5	12+	
What are you going to measure?				<i>Are there measurables that are easy and cheap? i.e. yeild, growth rates, observations etc?</i>
What else could affect the results and how will you manage this?				
How big a difference would you need to see to be confident your treatment (s) has had an impact?				<i>i.e. for basic split field cereal cropping trials a difference of at least 0.3-0.5 T/ha would be required</i>
How long will the trial run for?				<i>Usually weeks to months for animal and plant trials, and months to years for soil trials.</i>
How much will it cost?				

How big do you want your trial to be?		<i>Anything from a small plot or few animals, to the whole farm. The size of your trial needs to be big enough to generate meaningful results but not so big that it exceeds the risk you are willing to take.</i>
Who are you going to tell about your trial?		<i>Choose people that you know will hold you accountable for implementing it correctly and not disregarding it when you get busy!</i>
Checklist	Can you trial be easily replicated (by you or someone else)?	<input type="checkbox"/>
	Is it simple to understand?	<input type="checkbox"/>
	Is it easy to measure?	<input type="checkbox"/>
	Do you have the tools/knowledge to implement it?	<input type="checkbox"/>
<i>If you are checking to see if something that you are already using is working (i.e. fert, drench, chemical) then often you will be setting up one or more 'control plots'. If you are trialling something new, then you might set up a trial area with a control. If you want to test multiple different options then you will need multiple trial plots, controls and an appropriate number of replicates.</i>		
Results		
Learnings		
Future actions		