

Adoptability and effectiveness of livestock emission reduction techniques in Australia's temperate high-rainfall zone

Adrian R. James^{A,C} and Matthew T. Harrison^B

^ANRM North, 63–65 Cameron St Launceston, Tas. 7250, Australia.

^BTasmanian Institute of Agriculture, University of Tasmania, Tas. 7320, Australia.

^CCorresponding author. Email: ajames@nrmnorth.org.au; james_adrian@hotmail.com

Supplementary material S1

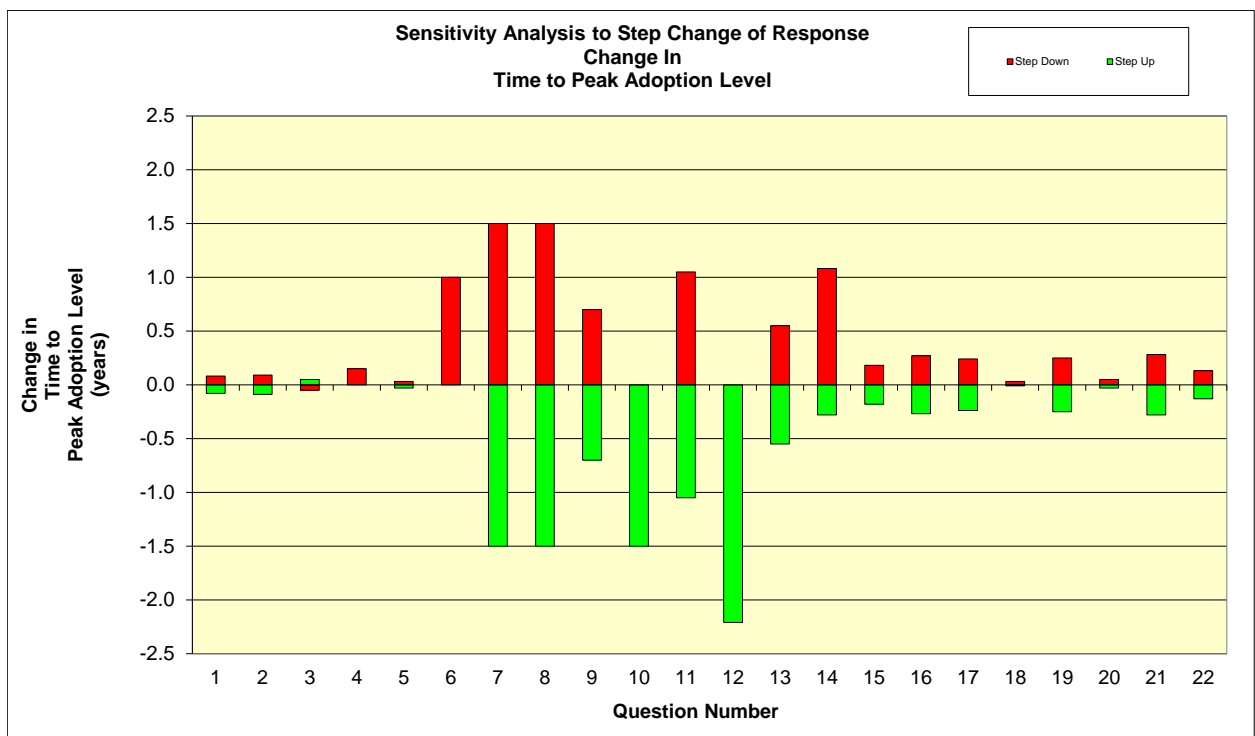
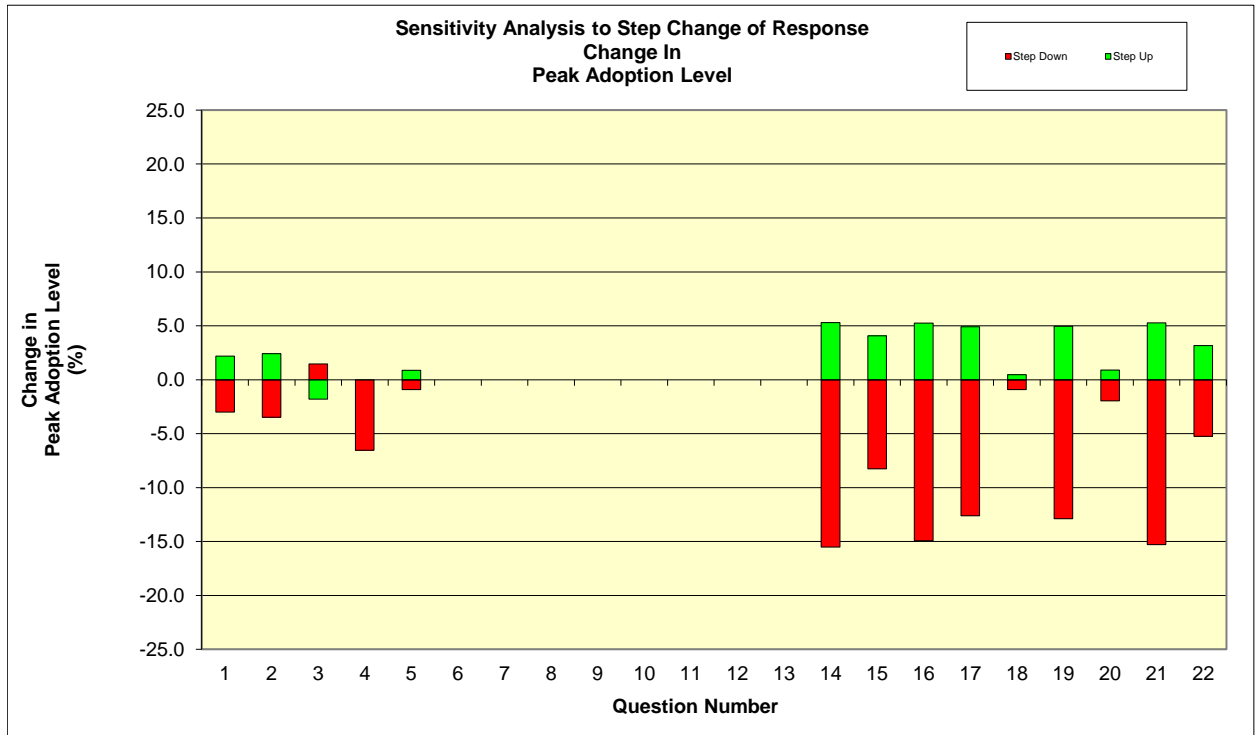
ADOPT Questions & Conceptual Framework

1. What proportion of the target population has maximising profit as a strong motivation?
2. What proportion of the target population has protecting the natural environment as a strong motivation?
3. What proportion of the target population has risk minimisation as a strong motivation?
4. On what proportion of the target farms is there a major enterprise that could benefit from the innovation?
5. What proportion of the target population has a long-term (greater than 10 years) management horizon for their farm?
6. What proportion of the target population is under conditions of severe short-term financial constraints?
7. How easily can the innovation (or significant components of it) be trialled on a limited basis before a decision is made to adopt it on a larger scale?
8. Does the complexity of the innovation allow the effects of its use to be easily evaluated when it is used?
9. To what extent would the innovation be observable to farmers who are yet to adopt it when it is used in their district?
10. What proportion of the target population uses paid advisors capable of providing advice relevant to the innovation?
11. What proportion of the target population participates in farmer-based groups that discuss farming?
12. What proportion of the target population will need to develop substantial new skills and knowledge to use the innovation?
13. What proportion of the target population would be aware of the use or trialing of the innovation in their district?
14. What is the size of the up-front cost of the investment relative to the potential annual benefit from using the innovation?
15. To what extent is the adoption of the innovation able to be reversed?
16. To what extent is the use of the innovation likely to affect the profitability of the farm business in the years that it is used?
17. To what extent is the use of the innovation likely to have additional effects on the future profitability of the farm business?
18. How long after the innovation is first adopted would it take for effects on future profitability to be realised?
19. To what extent would the use of the innovation have net environmental benefits or costs?
20. How long after the innovation is first adopted would it take for the expected environmental benefits or costs to be realised?
21. To what extent would the use of the innovation affect the net exposure of the farm business to risk?
22. To what extent would the use of the innovation affect the ease and convenience of the management of the farm in the years that it is used?

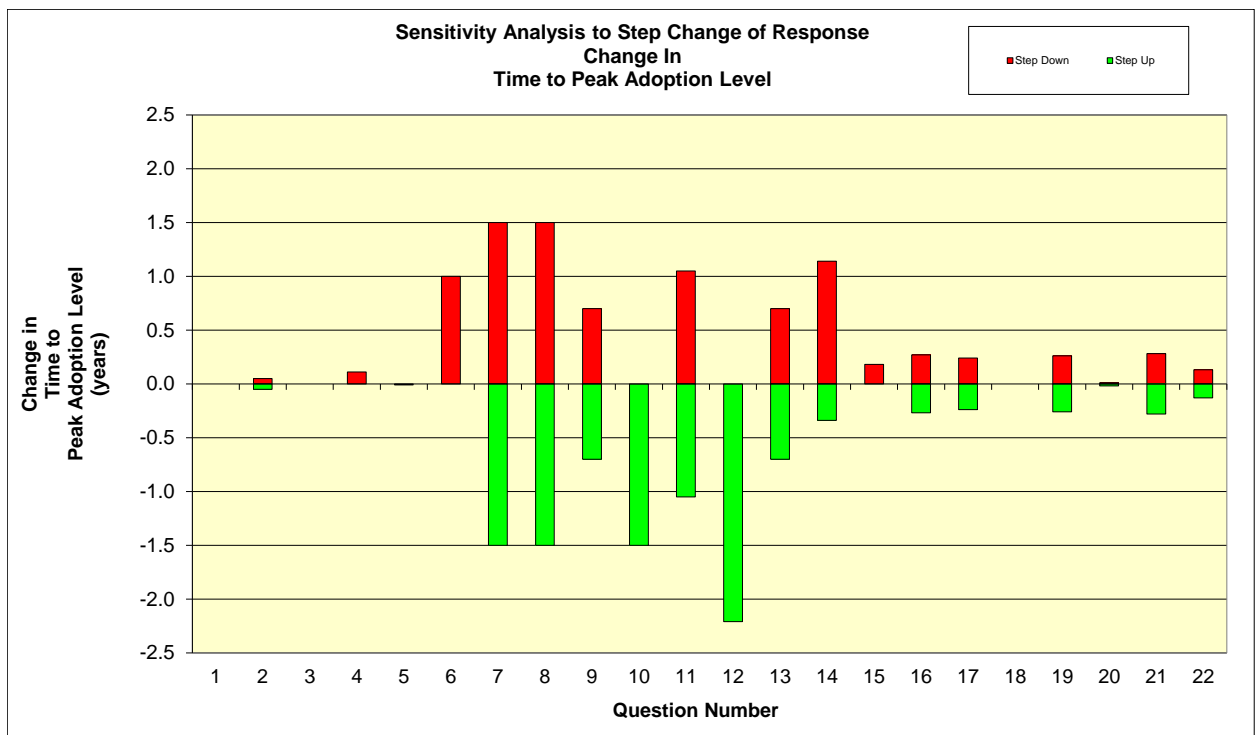
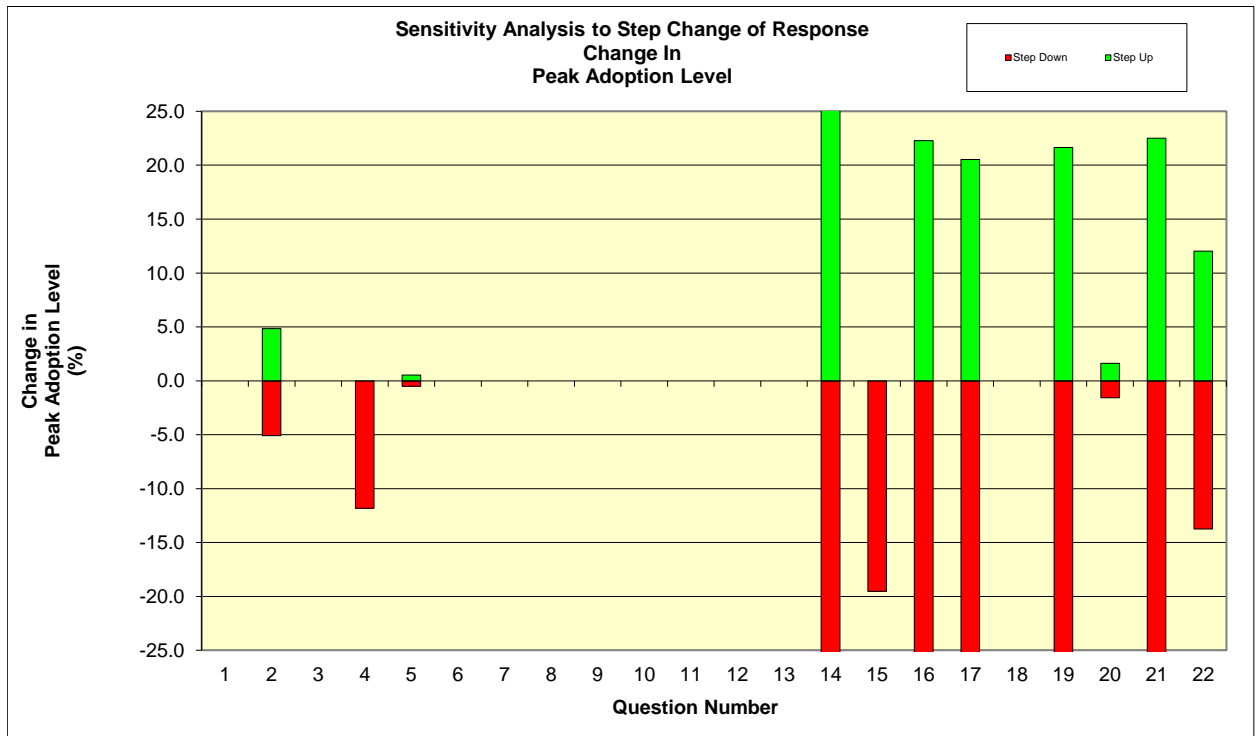
Supplementary material S2

Sensitivity analysis of ADOPT questions

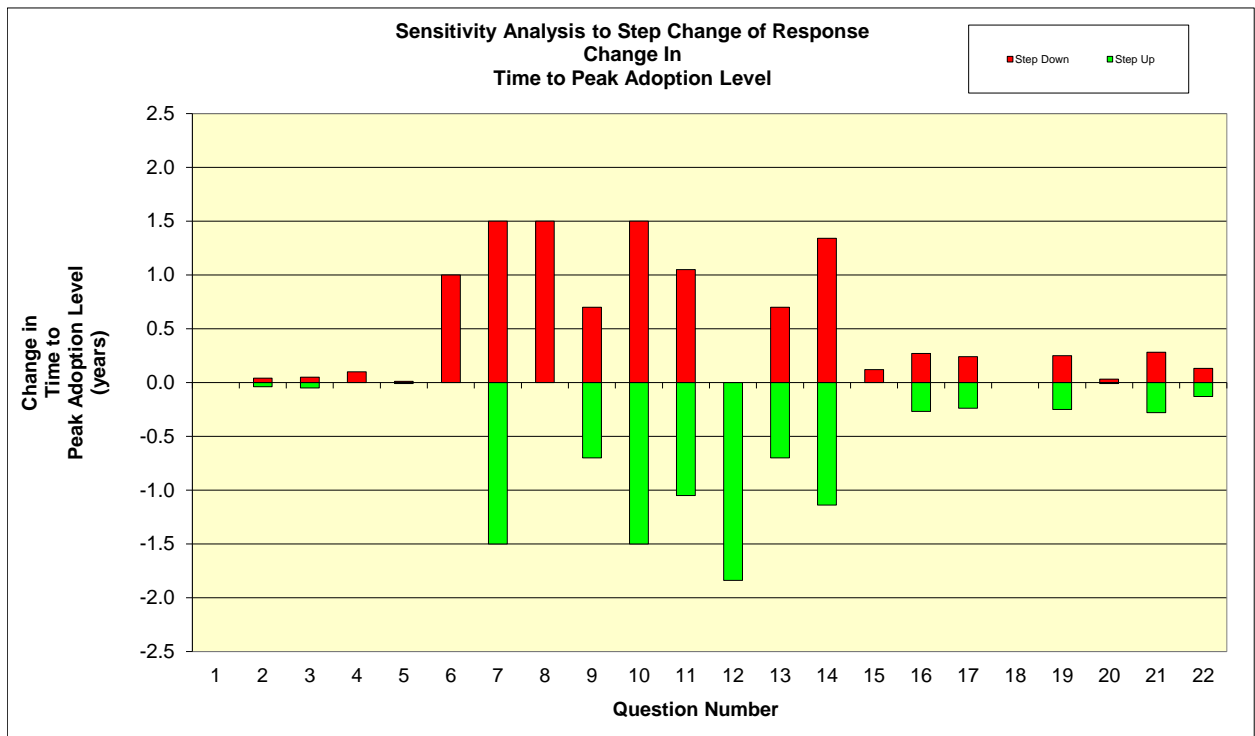
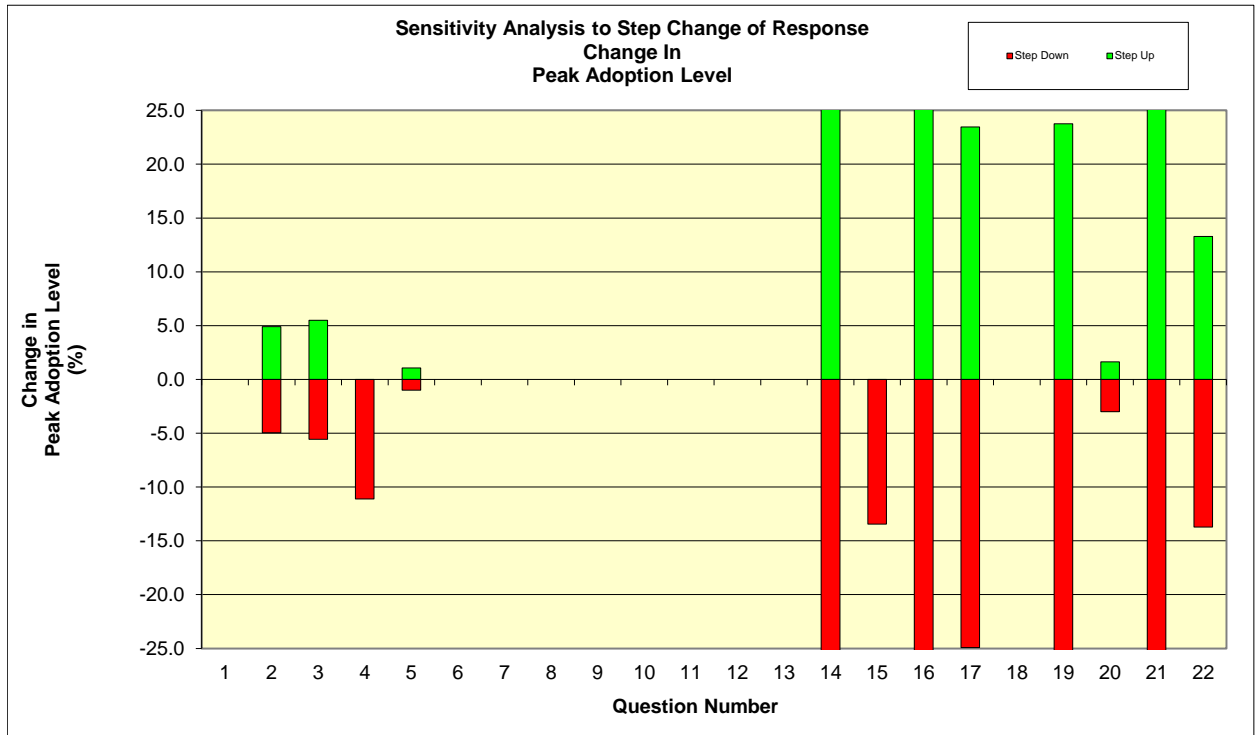
Dietary Tannins



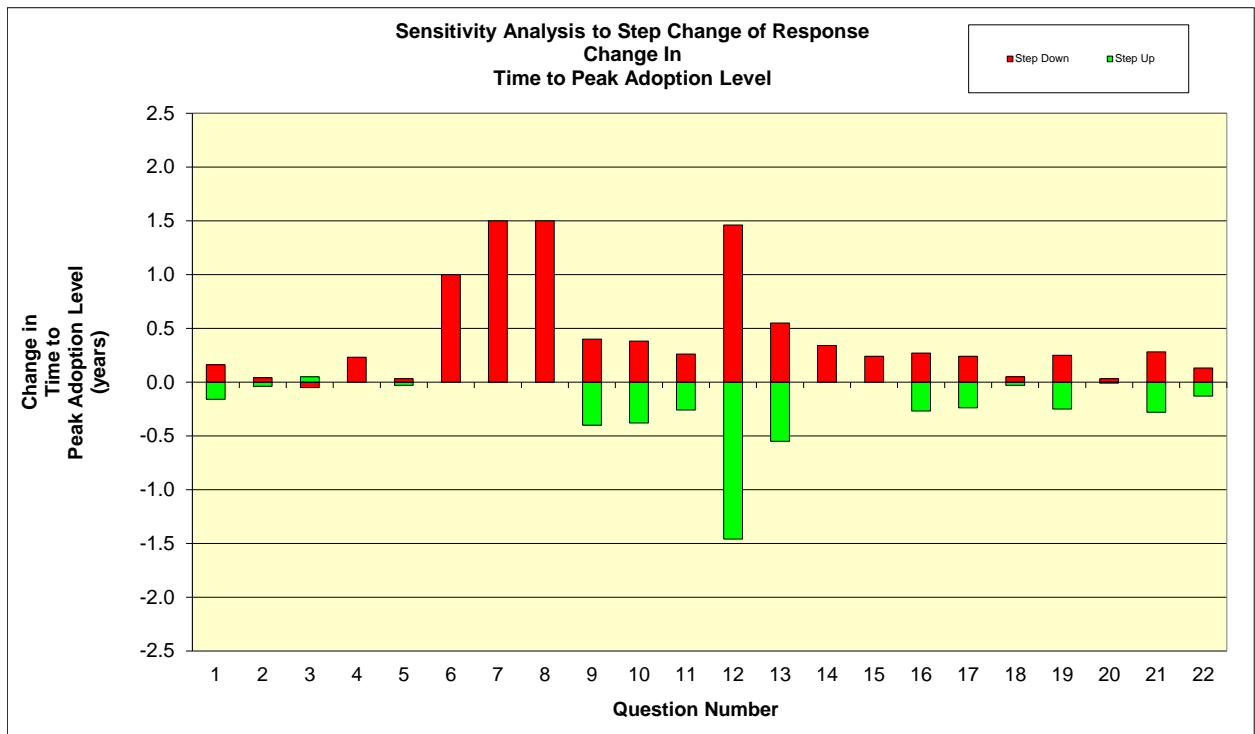
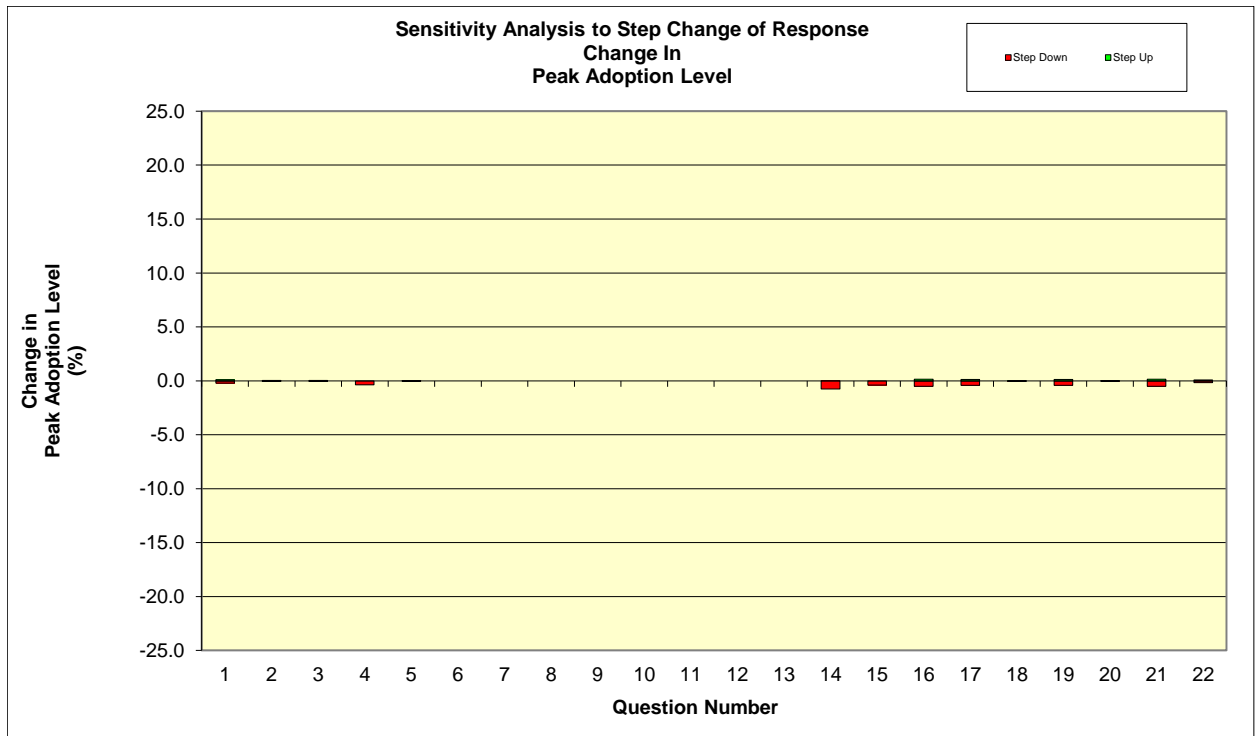
Dietary Lipids



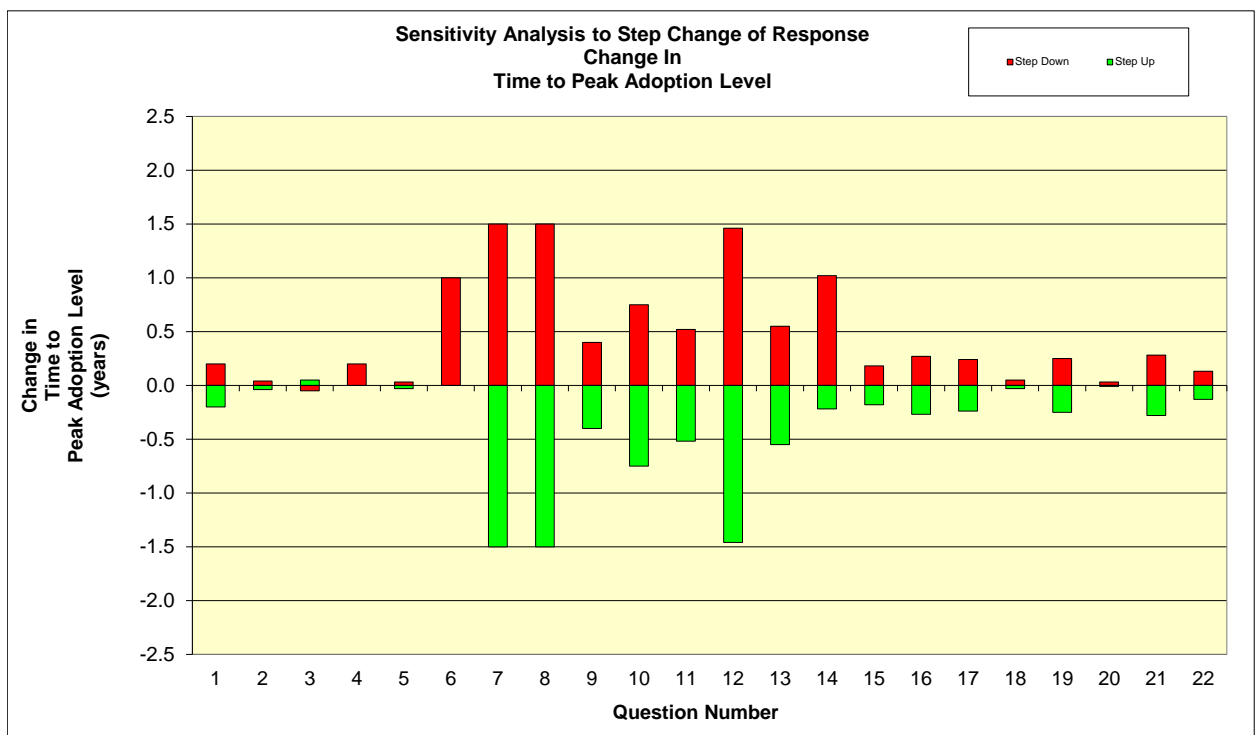
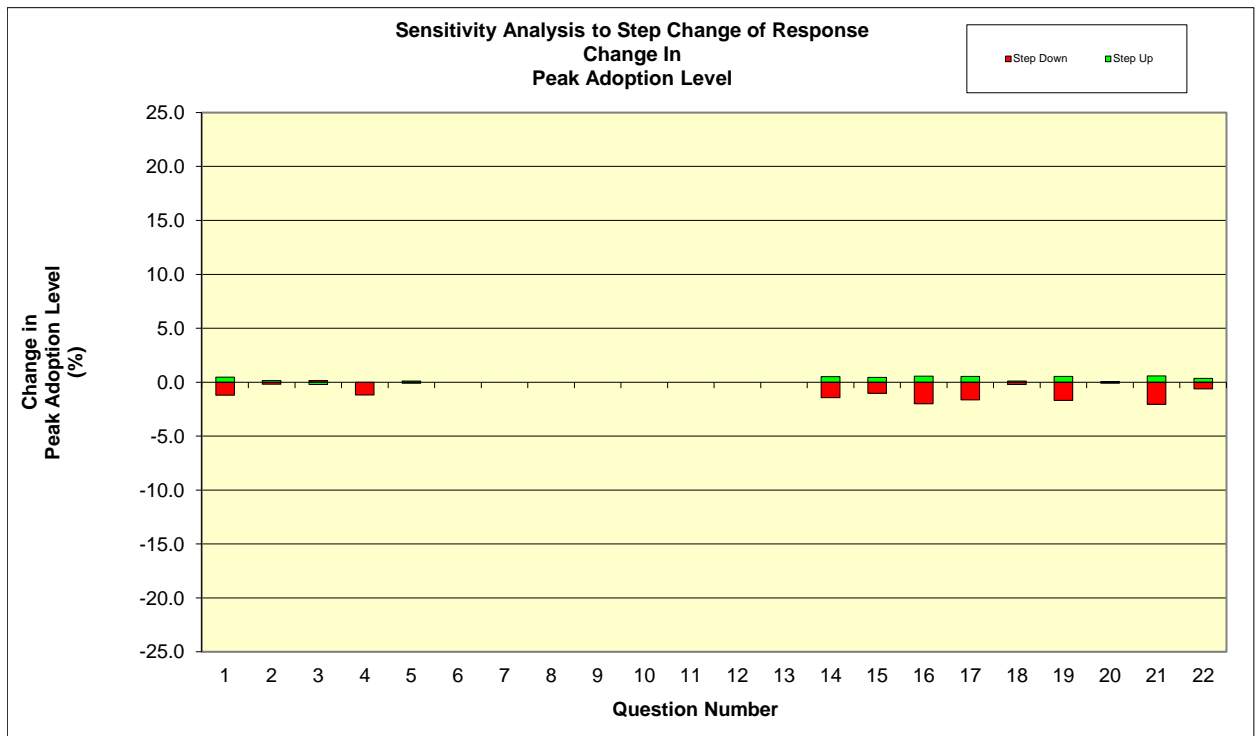
Precision Feeding



Early Joining



Weaning Rate



Early Finishing

