

10 Steps for Conducting Research on Your Farm or Ranch



Lesson 8 Worksheet Draw a Conclusion

The full workbook is available online or to order in print at www.sare.org/research-workbook.

ASSIGNMENT

1. As it's appropriate for the type of analysis you performed, create a quantitative statement of your findings. Make sure it's clear and concise.

Example for an observational study, where the goal is to determine attitudes of local Generation Z farm children toward regenerative agriculture: *Approximately 75% of surveys sent were completed and returned. Of these respondents, 58% hoped to return to the farm and take over operations. Of these, 85% expressed the intention to significantly depart from their parents' management strategies to become more regenerative and sustainable.*

Example for an experimental project, comparing two feed supplements for laying hens to increase the concentration of omega-3 in eggs: *The eggs from the hens fed supplement A had 0.34g of omega-3 per 100g of egg. The eggs from hens fed supplement B had 0.72g of omega-3 per 100g of egg. The control had 0.27g of omega-3 per 100g of egg. Thus, while both supplements did increase the omega-3 content of our eggs, supplement B almost tripled it compared to the control, whereas supplement A only offered a modest increase.*

Example for an engineering project, designing an AI-powered sensor to detect the presence of a canine animal in a sheep enclosure: *The goal was to detect the presence of a dog within 10 minutes of arrival in the pen at least 60% of the time. When the prototype was tested by introducing dogs to the enclosure, it achieved detection within 10 minutes only 43% of the time with one farm dog, but 49% with the other.*

2. State whether or not you supported your hypothesis, achieved your purpose, or met your criteria for success.

3. Revisit the question you set out to answer in Lessons 1 and 2. Clearly state what your results mean in terms of your initial question and project objective.

4. Discuss how this finding is directly important to sustainable agriculture. How might other farmers or ranchers utilize what you've learned?

5. If the results of your analysis didn't show exactly what you expected, why not? Please describe what you learned from the unexpected outcome.

6. Describe further research that could build on the knowledge you've gained.

7. What advice would you have for someone undertaking a similar project?

ASSIGNMENT SELF-EVALUATION

1. Are your statements supported by the data and analysis?

☐ Yes ☐ No

2. What new questions arose during the project?

3. If you could redo the project, what would you do differently?