

10 Steps for Conducting Research on Your Farm or Ranch



Lesson 2 Worksheet Choose Your Type of Research Project

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

ASSIGNMENT

The questions in this assignment include example answers from two different scenarios. We carry these examples through each of the questions here to illustrate how you can use them to identify a research approach for your situation.

1. What is the problem you want to address?

Example 1: *I'm a mushroom grower, and I use my spent mushroom growing medium as a soil amendment in my garden. I'd like to know if it would be worth making biochar from this medium; would it help my garden more?*

Example 2: *I see studies that say consumers are unwilling to pay extra for labels like "pesticide free" or "climate smart" on their food. I wonder how much of that is because of a lack of knowledge about environmental risks in our food system. I also wonder what information consumers want, to help them make informed buying choices.*

2. What sort of solution do you need?

Example 1: *I'd like to have a comparison of garden yields when adding mushroom medium versus biochar, just to see which gives me the better yields.*

Example 2: *I want to understand what people know about how their food choices affect the environment and their health. I want to know the level of knowledge people have about the connections between environmental issues and food.*

Continued

3. What do you think might be the best research approach to try to solve this problem? Why do you think this approach will provide the best solutions for you? (Remember you'll have a chance to change this later if needed).

Example 1: An **experiment**. I have an existing practice and an idea for a new approach to it. Also, I have an idea which approach might be better, so I can use this as my hypothesis. I would like to know if it really will work out as I predict. Whether it does or doesn't, I think this might be useful for both me and other growers to know.

Example 2: I don't have a preconceived notion of people's level of knowledge about environmental issues or interest in them, but I think it's important to understand this when communicating with the public about sustainable food products. How can I describe the health and environmental benefits of my products in a way that makes sense to people? I think I would get a clearer answer if I don't start with too many assumptions, so I don't think it makes sense to test a hypothesis. An **observational study** would be a better choice.

4. Briefly describe a general plan for how you might go about this research. This plan doesn't need to provide a lot of detail, as that will come in later lessons.

Example 1: I could make some biochar and use it in part of the garden while just using the spent growth medium in the other part. I would keep records and compare yields.

Example 2: I could create a quiz about environmental issues related to food, and ask people to take it. I could offer it in person or via social media, or both. I'm interested in learning about good methods for this type of project.

ASSIGNMENT SELF-EVALUATION

1. Think about the problem you've identified and the research approach you've chosen. Imagine working through the project with everything going perfectly.

Will the answers you find enable you to improve your operation in a meaningful way? ☐ Yes ☐ No

Will this information help others as well? ☐ Yes ☐ No

2. Now imagine that your project encounters unexpected difficulties and doesn't go as planned. What might you learn? Sometimes, great information comes from "failed" projects!