



Knowing and Learning Good Agricultural Practices: A Comparison of U.S. and Brazilian Produce Growers

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Introduction

In the past several years, food consumers around the world have witnessed a succession of foodborne disease outbreaks. As a result of these events, the safety of the global food system is now called into question and government regulators and private food retailers have responded by focusing on, in part, on-farm practices. Many local and international food retailers have begun requiring that produce growers obtain third-party certification ensuring that their produce is grown using Good Agricultural Practices (GAPs) to minimize food contamination risks. And in the United States, Congress recently introduced the Food Safety Enhancement Act to give the Food and Drug Administration greater regulatory powers to enforce adherence to on-farm food safety practices.

There is, however, a lack of empirical research on growers' perceptions of and adoption or acceptance of GAPs that create the foundation of these third-party audits, thereby leaving a gap in our understanding about how best to help growers learn about and meet these required food safety standards.



Methods

- Comparative case study to situate growers' experiences in the global South and global North within larger discussions about the globalization of agriculture
- Semi-structured interviews were conducted with produce growers in the states of Pennsylvania, U.S.A. (n = 14) and Sao Paulo, Brazil (n = 16)
- Interviews were transcribed and analyzed using Nvivo software, using a constant comparison method to code and categorize responses to common questions (Glaser & Strauss, 1967)



Objectives

1. To understand U.S. and Brazilian produce growers' "evaluative frame of reference" with regards to GAPs and food safety audits. Growers' "evaluative frame of reference" encompasses

- growers' perceptions of consequences of certain practices,
- growers' perceived likeliness that these consequences will emerge, and
- growers' evaluation of such consequences in relation to a set of their own aspirations for their farm (Leeuwis, 2004)

2. To identify appropriate means through which extension educators can help growers learn about and meet food safety standards for increased participation in the fruit and vegetable value chain.



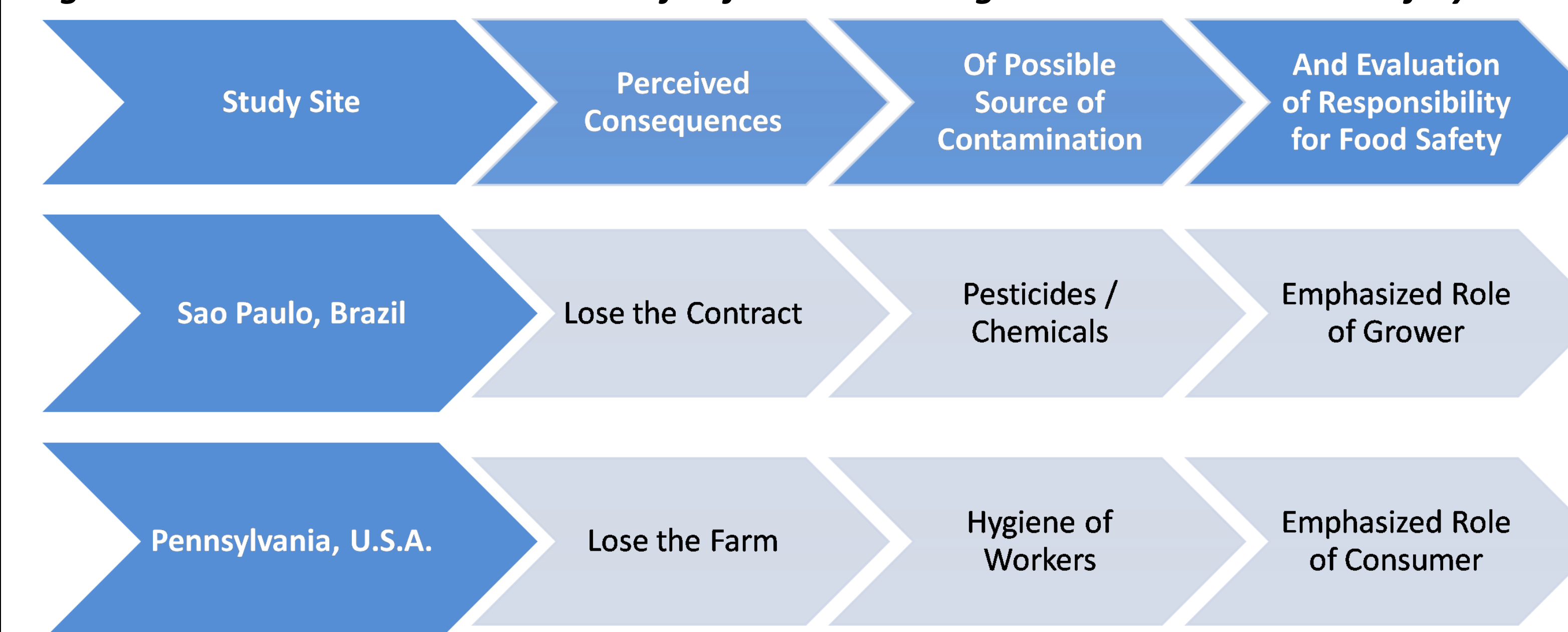
References

- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York: Aldine Publishing Company.
- Leeuwis, C. (2004). *Communication for Rural Innovation: Rethinking Agriculture Extension*, (3rd ed.) Ames, Iowa: Blackwell Publishing, Ltd.

Results

1. Data analysis revealed a disconnect between Pennsylvania growers' perceived consequences of a foodborne illness being traced back to their farm and with whom increased responsibility for food safety should be placed. Pennsylvania growers perceive greater consequences, but believe that more responsibility should be placed on consumers, whereas Brazilian growers perceive less consequences but believe that they should take more responsibility for food safety.

Figure 1. Growers' Evaluative Frame of Reference with regards to On-Farm Food Safety Practices



2. Also, growers discussed the ways in which they learn about food safety standards.

Pennsylvania growers emphasized

- The need for a more useful step-by-step guide to help them write a food safety plan to pass third-party food safety audits.
- The need for more face-to-face interaction with Extension educators.

Brazilian growers emphasized

- The usefulness of grocery store assistance in developing food safety plans.
- The role that growers' can play in sharing resources and information with each other to pass third-party food safety audits.

Implications and Future Research

This comparative analysis of growers' experiences in the global South and global North provides insight into how Extension can assist growers to participate more fully in a safer, fruit and vegetable value chain.

In Pennsylvania

- Community food system projects that involve consumers and growers should incorporate GAPs awareness education to address the disconnect presented in growers' evaluative frame of reference.
- Extension should develop simplified step-by-step plans and provide on-farm consultations to help growers prepare for third-party food safety audits.

In Sao Paulo

- Grocery stores should be encouraged to connect with producer organizations to share information.
- Agricultural research organizations should facilitate capacity building among producer organizations.

Additional research on the impact of farm size on a grower's ability to pass third-party food safety audits, as well as on consumer and retailer perspectives regarding food safety of fresh produce, could provide additional insight for the development of food safety standards that are appropriate for growers, consumers and retailers alike.