**Publication AAEC-187P** 

# Produce Safety, Perceived Risk, and Consumer Choice

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#### Introduction

The Food Safety Modernization Act (FSMA), enacted in 2011, has proven to be a source of uncertainty for many agricultural producers. The Produce Safety Rule, a provision of the act focusing on selected fresh fruits and vegetables, has been a particular source of uncertainty for produce farms. Even now, after the original January 2018 Produce Safety Rule compliance date for most large farms (those with three-year average sales greater than \$500,000 annually), potential changes to these provisions are being considered. For example, uncertainty regarding future requirements for water testing and biological soil amendments represents significant production risks for producers, adding potentially significant costs and recordkeeping requirements. Smaller producers may feel relieved if they find they are exempt from the PSR, but is important to note that the FSMA and the produce rule strike at the heart of something the market has been driving at for years: Consumers want safer food, and some are willing and able to pay a premium for it.

# **Consumer Preferences for Food Safety Risk**

Smaller operations selling fresh produce may be able to claim a qualified exemption from the Produce Safety Rule and need only comply with modified requirements if they meet certain provisions (figure 1). To determine if your farm is covered or exempt from the produce rule, complete the Virginia Cooperative Extension survey "Is my farm covered or exempt from the Produce Safety Rule?" online at https://vce.az1. qualtrics.com/jfe/form/SV\_emnhR0UpFpiVvlr.

Still, fresh produce farmers who find they are exempt from the Produce Safety Rule often must contend with constantly changing consumer preferences. Consumers have different levels of perceived risk associated with products from different sources. A recent study (Neill and Holcomb 2019) found that most consumers indicated they would expect to pay less for tomatoes from exempt operations compared with those from farms who must act in compliance with the Produce Safety Rule. This was particularly true among younger consumers, who also happen to spend more money on food away from home than those who are older than 50. If applied to the produce industry as a whole, the study estimates that these differences in consumer preferences surrounding the PSR could cost handlers and producers of fresh produce anywhere from 3.34% to 4.50% of a \$42.7 billion industry — amounting to between \$1.4 billion and \$1.9 billion in losses annually.

Neill and Holcomb (2019) also asked consumers if they perceived a higher risk of foodborne illness from produce that is exempt from the Produce Safety Rule. The researchers found that most consumers perceive an equal risk between exempt and nonexempt produce. However, risk perception can depend on a number of factors, such as whether the farm is exempt from the rule, the age of consumer (as seen in figure 2), the size of the grower (regardless of rule exemptions), the level of information provided to the consumer, and farmer participation in thirdparty certification programs like Good Agricultural Practices. Although this study focused on locally grown produce, the researchers did not specifically address the tradeoffs between buying local produce at a farmers market versus a grocery store. Other

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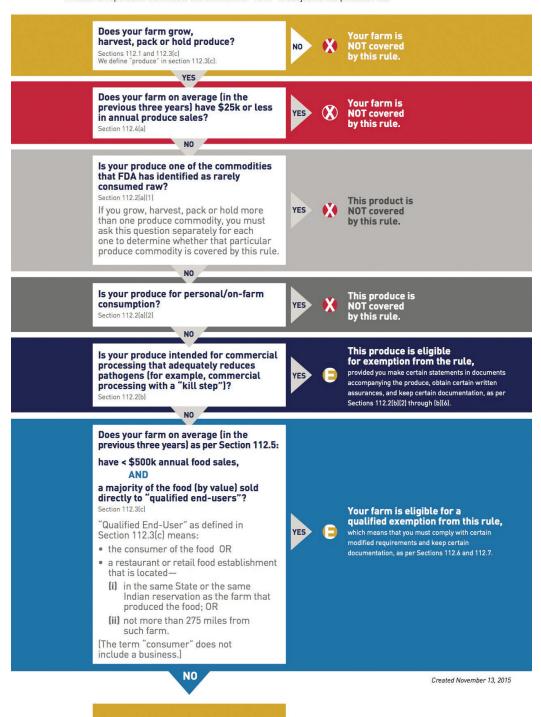




#### STANDARDS FOR PRODUCE SAFETY

Coverage and Exemptions/Exclusions for 21 PART 112

The Preventive Controls for Human Food rule clarified the definition of a farm to cover two types of farm operations, primary production farms and secondary activities farms. The same definition is used in the Produce Safety rule (section 112.3(c)). Below are basic criteria that determine whether an operation that meets the definition of "farm" is subject to the produce rule.



YOU ARE COVERED BY THIS RULE.

Figure 1: Standards for Produce Safety: Coverage and Exemptions/Exclusions for 21 PART 112. (United States Food and Drug Administration, 2015.)

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research suggests that the personal connection at a farmers market and the idea of supporting local farmers and economies is preferred by consumers (Malone and Lusk 2017). This could offset the economic costs of not being Produce Safety Rulecertified, but this presumption requires additional research.

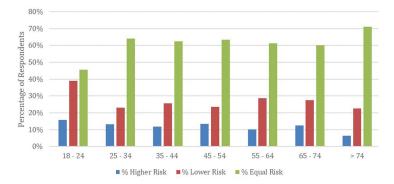


Figure 2: Respondents' Perceived Risk of Foodborne Illness of Produce Safety Rule (PSR)-Exempt Produce as Compared with PSR-Certified Produce, By Age Group. (Source: Food Demand Survey, June 2017)

So how do qualified exempt producers go about adapting to changing consumer perceptions? Following proper food safety measures and educating consumers about them would be a good start (Collart 2016). Currently, there is no academic consensus on whether or not a produce safety label would make a measurable difference, but there is a consensus that consumers adjust their buying practices based on their perceived risk (Neill and Holcomb 2019; Shogren et al. 1999). If consumers are educated that the actual risks of consuming PSR-exempt produce are typically equal to produce grown on farms that must comply with the food safety rule, they may be willing to pay more for the exempt produce. Produce Safety Rule exemptions may be a boon for producers in terms of avoiding the costs of compliance, but given the discerning nature of today's consumers, these regulations may increase the producer's financial obligation to inform and educate their potential market about their agricultural practices regarding food safety.

# More Information on the Food Safety Modernization Act

Virginia Cooperative Extension is working to assist and support producers and consumers through

the changes in food safety requirements. To learn more about these changes, visit the Virginia Fresh Produce Food Safety page at https://www.hort.vt.edu/ producesafety/ or contact your local extension agent.

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### Acknowledgements

We would like to thank Renee Boyer, Alba Collart, Theresa Long, and Kelli Scott who provided suggestions and edits to improve the publication. This work is supported by the Charles B. Browning Chair fund at Oklahoma State University, U.S. Department of Agriculture/National Institute of Food and Agriculture (USDA/NIFA) under Award Number 2015-49200-24228, and the Southern Extension Risk Management Education Center.

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