Evaluating the Effectiveness of Food Safety Trainings by Determining Factors that Influence Grower Adoption of Food Safety Certification Practices

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Introduction

Fresh produce growers are under increased pressure to abide by federal food safety guidelines and obtain third-party Good Agricultural Practices (GAPs) certifications. While food safety trainings have been offered for several years in Maryland, only about 25% of attendees implement food safety plans and receive GAP certification. This study aimed to use surveys and factual tests to define the factors influencing grower’s opinions of food safety practices and their reluctance to obtain GAP certification. These factors can be addressed in future trainings to increase the number of participants implementing recommended practices.

Results

Pre-training Questionnaire: Over 128 participants (one representative per farm) completed the questionnaires and factual tests in 2014 and 2015. Participants in the beginner trainings were involved in markets ranging from retail to wholesale, and 73% (74 out of 102 respondents) had never attended a previous GAP training. Participants’ reasons for attending the beginner trainings are listed in Table 1. Figure 2 demonstrates the participants self-evaluation regarding the increase in knowledge of GAPs after attending the beginner training. After the trainings, 87% (73 out of 84 expressed answers) of participants planned on implementing GAPs and receiving a certification. Figure 3 lists several potential difficulties that participants may have in becoming GAP certified – note that the majority estimate no potential difficulties.

Factual Tests: Responses to the ten-question multiple choice factual test improved after attending the beginner training. Only 9.6% (9 out of 94) of the participants scored 75% or greater in the pretest, in contrast to the 62.2% of participants scored 75% or greater in the posttest. Depending on the training, participants increased their scores on the factual test by 20-30% (2-3 answers out of 10) after attending the training.

Advanced Training: A high percentage of the participants attending the advanced training wholesale to grocery stores (17 out of 45 replies), as compared to selling at farmer’s markets (9 out of 45), restaurants (6 out of 45), and other marketing avenues. 85% of growers at the advanced training had attended previous food safety trainings (13 out of 26 respondents had attended 3 or more trainings, 9 out of 26 respondents had attended 1-2 trainings). The motivation for attending the advanced training were for continuing education (15 out of 25) and/or to prepare for upcoming food safety regulations (14 out of 25).

Methodology

University of Maryland offered full-day trainings to teach growers the produce safety practices and documentation associated with third party audits and upcoming federal regulations. Five beginner trainings and one advanced training were offered per year in 2014 and 2015.

Each beginner training consisted of a morning session of presentations covering the microbiological concepts behind food safety and GAPs. The remainder of the training is spent writing risk assessments and Standard Operating Procedures, which are then written into a food safety plan. The advanced trainings were open to growers with a microbiological concepts behind food safety and GAPs. The remainder of the training is spent writing risk assessments and Standard Operating Procedures, which are then written into a food safety plan. The advanced trainings were open to growers with a...