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Assessing the market premium for organic certification among Canadian community supported agriculture programs

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Community supported agriculture (CSA) is a farming concept that allows growers and consumers to partner together to share the risks and benefits of food production. This study examines the impact of organic certification on Canadian CSA share prices. I use Canadian CSA data collected from online sources that documents CSA share prices and characteristics of CSA farms. Results suggest that CSA farms that self-identify as organic charge a 13% premium over conventional farms. I also find that CSA farms that are certified organic charge a 17% premium. These premiums are not statistically different from each other, which suggests that organic certification does not increase the premium relative to uncertified organic. It appears as though CSA, which is a direct marketing concept, acts as a substitute for third-party certification. This study also identifies several parameters that are important for CSA programs, namely the number of weeks the CSA provides produce the average number of vegetable varieties, and the number of pick-up locations.

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Contamination of fruits and vegetables during washing in retail and foodservice settings

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Leafy vegetables are considered to present the greatest concern with regard to microbiological hazards of fresh produce. Typically produce is washed with potable water with/without sanitizing agents for the primarily purpose of removing soil and debris. Washing can reduce the population of pathogenic and spoilage microorganisms, improve appearance, and extend shelf-life of produce. Unfortunately, wash water can serve as a vehicle for microbial cross-contamination of product, especially when the water is reused without addition of sanitizing agents. In the present study, efficacy of sanitizers to minimize cross-contamination during washing/crisping at retail outlets was investigated. Romaine and red leaf lettuce were spot inoculated with cocktails of two of the following pathogens *Salmonella, E. coli* O157:H7, or *L. monocytogenes* to achieve approximately 5 log CFU/g. Seven non-inoculated heads and one inoculated head of lettuce were placed into commercial stainless steel sink filled with 76 L of tap water (TW), electrolyzed water (EW, free chlorine: 43±6 ppm), or commercial lactic acid and phosphoric acid-based sanitizer (LPA, pH 2.89±0.05 and) and citric acid-based sanitizer (CA, pH 2.78±0.07) and immersed for 5 min. Subsequently, two additional batches were washed in the same solution; eight non-inoculated heads of lettuce were used each time. After each washing, two 100 ml water samples were collected to determine microbiological quality of the water. Crisping or soaking with EW significantly reduced the population of *Salmonella* (2.8±1.5 log CFU/g), *E. coli* O157:H7 (3.4±1.1 log CFU/g), and *L. monocytogenes* (2.6±0.7 log CFU/g) on romaine lettuce compared to TW, LPA, and CA ($p<0.05$). Crisping with EW prevented cross-contamination among lettuce heads and controlled bacterial populations in the processing water even after triple use of the water.

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