Supplemental Material 1 (S1). Detailed Description of Study Datasets.

Dataset I: This study (published; Strawn et al., Appl. Environ. Microbiol. 79:588-600, 2013) was performed to determine landscape and meteorological factors associated with foodborne pathogen prevalence in produce preharvest environments. A total of 588 samples (175 composite soil, 175 drag swab, 174 water, and 61 fecal samples) were collected from five produce farms over a two year period (2009-2011) in New York State (NYS). Four fields (each approximately 0.75 ha) were sampled on each farm every astronomical season (summer, fall, winter, and spring). One composite soil sample (consisting of five sub-surface soil samples), one drag swab sample (topsoil), and where available, up to five water and fecal samples were collected for each field. *Salmonella* was detected in 27 samples (4.6%) and yielded a total of 57 *Salmonella* isolates.

Dataset II. This study (published, Strawn et al., Appl. Environ. Microbiol. 79:7618-7627, 2013) was performed to identify field-level management practices associated with foodborne pathogen contamination of produce fields. A total of 600 samples (263 composite soil, 263 drag swab, and 74 water samples) were collected from 21 produce farms over a five week period (June-July 2012) in NYS. At least ten fields (each approximately 0.2 ha) were sampled on each farm only once. One composite soil sample (consisting of five sub-surface soil samples) and one drag swab sample (topsoil) were collected for each field. Additionally, samples were collected from water sources that were used for field irrigation or within 50 m from a sampled field. *Salmonella* was detected in 26 samples (4.3%) and yielded a total of 35 *Salmonella* isolates.

Dataset III. This study (reported here) was performed to explore regional *Salmonella* diversity associated with two distinctly different produce growing regions in New York State and South Florida. A total of 65 samples (8 composite soil, 8 drag swab, 40 water, and 9 fecal samples)

were collected from two produce farms over a week (2010). Four fields (each approximately 1 ha) were sampled on each farm only once. One composite soil sample (consisting of five sub-surface soil samples), one drag swab sample (topsoil), and where available, up to five water and fecal samples were collected for each field. *Salmonella* was detected in 23 samples (35.4%) and yielded a total of 81 *Salmonella* isolates.

Dataset IV. This study (manuscript in preparation) was performed to analyze the impact of microbiological contamination on produce farms post flooding, as a result of Hurricane Irene (eastern NYS). A total of 429 samples (90 composite soil, 219 drag swab, and 120 water samples) were collected from two produce farms over a nine month period (Sept-Apr 2011). Samples were collected on three dates: 21 d, 44 d, and 238 d post flooding. Seventy seven quadrants (each 30 m x 30 m) were sampled on each date (12 quadrants were not sampled on d 238). One drag swab sample (topsoil) was collected for each quadrant, in addition to 30 soil samples (consisting of five sub-surface soil samples) from randomly assigned quadrants on each date. Water samples were collected in 20 m increments from any water source (e.g., rivers, drainage canal) that flooded on each farm. *Salmonella* was detected in 17 samples (2.2%) and yielded a total of 44 *Salmonella* isolates.

Dataset V. This study (manuscript in preparation) was performed to predict geographical and meteorological factors associated with foodborne pathogen prevalence in produce preharvest environments. A total of 60 samples (20 composite soil, 20 drag swab, 13 water, and 7 fecal samples) were collected from five produce farms over a two week period (June-July 2010) in NYS. Four fields were sampled on each farm only once. One composite soil sample (consisting of five sub-surface soil samples), one drag swab sample (topsoil), and where available, up to five

water and fecal samples were collected for each field. *Salmonella* was detected in 5 samples (8.3%) and yielded a total of 11 *Salmonella* isolates.