Modern human diet includes a wide variety of food materials from various different sources. The active promotion of fruits and vegetables as important part elements of a healthy diet has lead to a significant increase in fresh produce consumption worldwide being eaten all over the world. However, recent outbreaks of foodborne illnesses related to consuming fresh produce consumption have indicated that these heighted concerns that these foods maybe are an increasing source of illness. The minimal processing required for fresh and freshly cut produce which does not include any effective microbial elimination step and results in contaminants microorganisms in food products naturally carrying microorganisms, some of which these microorganisms may be potentially hazardous to the human health cause health hazards. Some of the certain foodborne pathogens such as Salmonella spp., Escherichia coli, Citrobacter spp., and Enterobacter spp., produce curli which are proteinaceous components of a complex extracellular matrix which help in the initial stage of biofilm formation and enhance the resistance of cell resistance cells in biofilms for sanitizers and disinfectants. Curli are proteinaceous components of a complex extracellular matrix and are produced by many Enterobacteriaceae. They are thin, coiled fibers expressed thin, coiled fibers expressed on the cell surface of many Enterobacteriaceae and of cells that bind several matrix and plasma proteins such as fibronectin, laminin, and plasminogen and as well as azo dyes such as Congo red. Raw vegetables, and fruits and as well as unpasteurized juices contain a number of several curli-producing foodborne pathogens, which are associated with foodborne related diseases. These curli-producing pathogens form biofilms on fresh produce as well as on food contact surfaces, resulting in and result in cross contamination of produce. Curli producing bacterial strains are characterized by their ability to bind Congo red binding ability, which provides a simple screening method for in vitro curli production. The Congo red binding technique has uses a qualitative as well
as a quantitative approach. Curli-producing microorganisms were isolated from fresh produce and unpasteurized carrot juice using modified Luria–Bertani (LB) medium. Curli-producing microorganisms formed dry, red, rough colonies on modified LB medium, while nonproducers formed smooth, white colonies. The parameters that control curli production, such as temperature and osmolarity, were evaluated using the Congo red binding technique.