Before proofreading and formatting:

Modern human diet consists of a wide variety of food materials from different sources. The active promotion of fruits and vegetables as important part of a healthy diet has lead to significant increase in fresh produce being eaten all overworld. Recent outbreaks of foodborne illness related to consuming fresh produce has heighted concerns that these foods maybe an increasing source of illness. The minimal processing required for fresh and freshly cut produce which omits any effective microbial elimination step results in food products naturally carrying microorganisms, some of which may be potentially hazardous to the human health.

Some of the foodborne pathogens like *Salmonella* spp., *E.coli*, *Citrobacter* spp. and *Enterobacter* spp. produce curli which help in the initial steps of biofilm formation and enhance the resistance of 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 at surface of cells that bind several matrix and plasma proteins such as fibronectin, laminin, plasminogen and azo dyes like Congo red. Raw vegetables, fruits and unpasteurized juices contain a number of curli producing foodborne pathogens which are associated with food related diseases. These curli producers form biofilms on fresh produce as well as on food contact surfaces and result in
Cross contamination of produce. Curli producing bacterial strains are characterized by their ability to bind Congo red which provides a simple screening method in vitro curli production.

The Congo red binding technique has a qualitative as well as a quantitative approach. Curli producers were isolated from fresh produce and unpasteurized carrot juice using modified Luria Bertani medium. Curli producing organisms 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.
After proofreading and formatting:

1. **Introduction:**

Modern human diet consists of a wide variety of food materials from different sources. The active promotion of fruits and vegetables as an important part of a healthy diet has led to a significant increase in fresh produce being eaten consumed all over worldwide. Recent outbreaks of foodborne illnesses related to consuming fresh produce consumption have heightened concerns that these foods may be an increasing source of illness. The minimal processing required for fresh and freshly cut produce, which omits any effective microbial elimination step, results in food products naturally carrying microorganisms, some of which may be potentially hazardous to the human health.

Some of the foodborne pathogens such as Salmonella spp., *Escherichia coli*, *Citrobacter* spp., and *Enterobacter* spp. produce curli, which help in the initial steps of biofilm formation and enhance the resistance of cells in biofilms to sanitizers and disinfectants. Curli are proteinaceous components of a complex extracellular matrix that are produced by many *Enterobacteriaceae*. They are thin, coiled fibers expressed at on the surface of cells that bind several matrix and plasma proteins such as fibronectin, laminin, and plasminogen as well as azo dyes such as Congo red. Raw vegetables and fruits as well as unpasteurized juices contain a number of curli-producing foodborne pathogens, which are associated with foodborne diseases. These curli producers form biofilms on fresh produce as well as on food contact surfaces and result in cross contamination of produce. Curli-producing bacterial strains are characterized by their ability to bind Congo red, which provides a simple screening method for in vitro curli production. The Congo red binding technique has

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uses a qualitative as well as a quantitative approach. Curli producers 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.