

Doctoral Dissertation Presentation

Application of ethanolic plant extract combined with other hurdles in controlling *Escherichia coli*

(植物エタノール抽出液と他の複合ハードルによる大腸菌の制御)

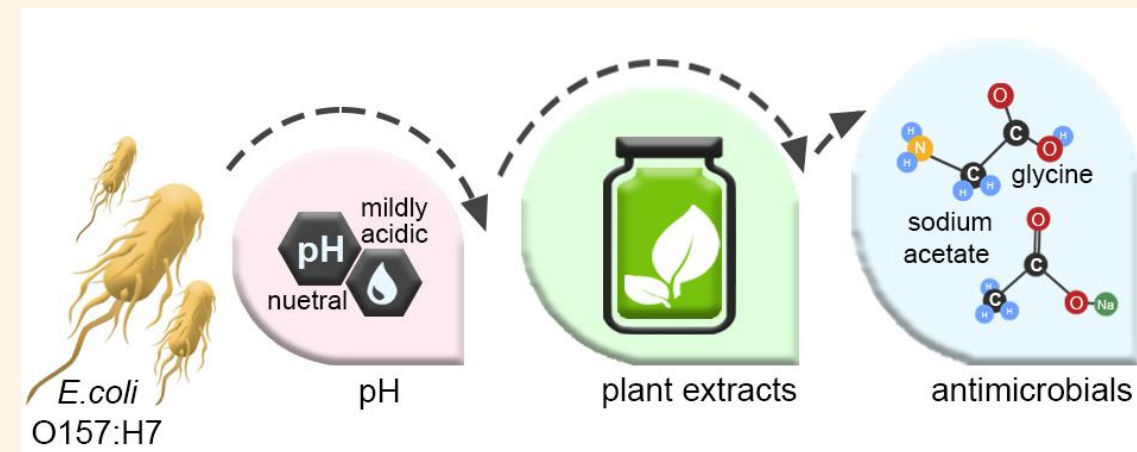
Speaker: Waraporn Kusalaruk

Graduate School of Biosphere Science

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Place: C 314

Escherichia coli O157:H7 is a major foodborne pathogen, which causes severe disease such as hemorrhagic colitis and hemolytic uremic syndrome. In the last decade, outbreaks associated with *E. coli* O157:H7 have been commonly traced to food products including beef, leafy greens, and salads. Previous studies have been reported that *E. coli* being resistant against some spice and herb extracts. Therefore, using plant extract to control *E. coli* might be used at high concentrations, which can negatively affect the sensory quality of food products. To address these challenges, hurdle technology or combined methods is recommended to control this bacteria while maintaining the quality characteristics of food products. Thus, this study aimed to investigate the hurdle technology application of ethanolic plant extracts with other hurdles to control the growth of *E. coli*. As a result, the idea of hurdle technology applied in the current study could serve as a promising strategy in controlling pathogenic bacteria.



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