

Conference Abstract

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Conference Abstract

EFFECT OF INDIGENOUS VARIETY OF ALOE VERA ON BACTERIOCIN PRODUCTION BY PROBIOTICS CULTURE

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Ethics approval and consent to participate: No ethical approval needed for this research work.

Consent for publication: Author is agreed to submit this abstract for publication in this research journal.

Availability of data and materials: The information and data collected and/ or incorporated in this study is included in this manuscript.

Keywords: *Aloe vera*, Probiotics, Zones of Inhibition, Anti Microbial Properties

ABSTRACT

Background: *Aloe vera* has long been used as a medicinal plant in the preparation of various gels, lotions and ointments besides its use in various food products.

Methodology: The present study was carried out at the Plants Genetics Research Institute, National Agricultural Research Centre, Islamabad. For the purpose of this study, an indigenous variety of *Aloe vera* was taken along with probiotics culture of *Lactobacillus acidophilus*, *Lactococcus lactis* and *Lactobacillus helveticus*. *Aloe vera* gel matrix was separated from outer cortex of leaves and media were prepared for the growth of respective probiotics cultures. *Aloe vera* was used in each probiotic culture against two pathogenic strains, i.e. *E. coli* and *S. aureus*. In one plate, tryptone was replaced by 1% *Aloe vera* extract, while 0.5% and 1% *Aloe vera* extracts were added to other two plates. All the three probiotic cultures were separately inoculated in test tubes, which were incubated at 37°C for 24 hours.

Results: After incubation of 24 hours, plates were observed on the next day for the measurement of inhibition zones. Strong to medium zones of inhibition were formed against *E. coli* and *S. aureus* for all three probiotic cultures when 1% *Aloe vera* extract was used.

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Conclusions: This study revealed that the indigenous variety of *Aloe vera* exhibited significant anti microbial properties.



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