ISOLATION AND CHARACTERIZATION OF COW DUNG MICROFLORA AND ITS EFFECTIVENESS OF *CITRUS LIMON* BIO-ENZYME

Abstract

Cow manure act as a good fertilizer. It contain more nutrients beneficial microbes. It supports growth useful microbes. When it was mixed with soil it improve the soil and maintain moisture. The present studies carried out isolation of cow dung microflora and its antimicrobial properties against bio enzyme ***citrus limon.*** The bacterium like ***shigella*** species ***23mm*** inhibition and proteous species17 mm inhibition against ***citrus limon***

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I. INTRODUCTION

Cow dung more contain more beneficial microbes and various Nutrional components vitamins, cellulose, oxygen, carbon, mucus, potassium, nitrogen, it is being used in Agricultural and religious purpose.

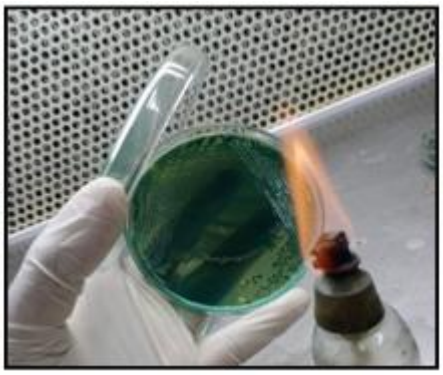
A micro organisms such as ***bacilli coccus***. According to ***Ware et al .,* 1988** Lactation performance of two large dairy herds fed Lactobacillus acidophilus strain. ***Saccharomyces corevisiae*** act as probiotic ***Ware Funssin D R, Read PL et AL.,(1988)*** Generally old cow dung has more soil microbes and *Actinomices* ***Muhamed and Amusha (2003).*** There are many Proofs to confirm that. ***Nene YL . (2001)*** Utilizing traditional knowledge in agriculture. Traditional knowledge system of India and Sri Lanka,.***Sharma and Singh, 2015)***). Isolation and charactreization of bacteria from cow dung of desi cow breed on different morpho-biochemical parameters in Dehradun. ***(Randhawa and Kullar, 2011)*** Bioremediation of pharmaceuticals,pesticides and petrochemicals with gomeya and cow dung. ***(Fleming et.al., 1929)*** Kardos N and Demain AL. (2011). Cow dung rich in *Enterobacter aerogenes, Escherichia coil, Klebsilla oxytoca, Klebsilla pneumonia Morgarella morganii, Pasteurella species,*antifungal agent.***(Muhamed and Amusha 2003) (Dhama et al., 2005). (Joseph and Sankerganesh 2001) (Dhama et al., 2013)**cow dung shows antimicrobial properties ***(Daviud odemi et al., 2007)***

Microbial Analysis of Compost Using Cow Dung as Booster. Cow dung as booster in the decomposition of organic material ***(Adgunloye et al., 2007).*** Cow dung act as organic Fertilizer, ***(V. Muralikrishna et al., 2017***) Recycling of Organic Wastes in Agriculture: ***(B. Sharma et al.,2019)***

***Citrus limon* HerbalPlant**

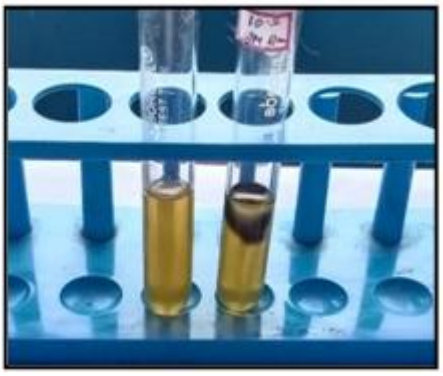
Bio Enzyme *Citruslimon.,*

Bio Chemical Charecteristic Of *Shigella Species.,*

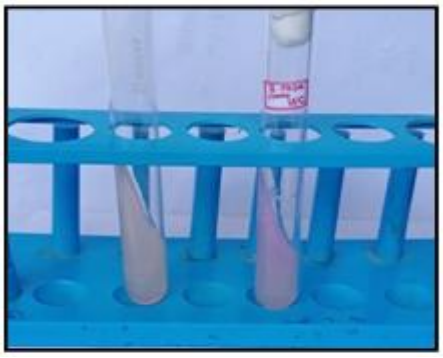


Shigella Sp, Hekteon Entric Agar

MR -Positive

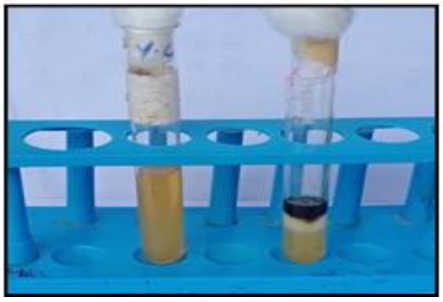


Indole Negative

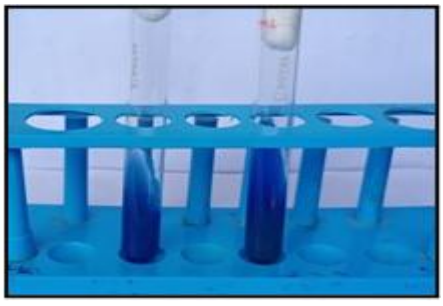


Urease Test-Positive

Klebisella Pneumoniae Species

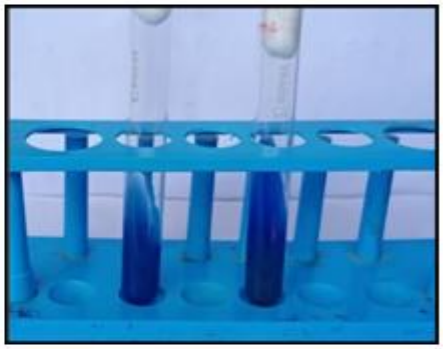


Indole NegativeTest



Simmon's Citrate Test- Positive

Biochemical characters of *Proteus species*



Simmon's Citrate Test - Positive

Table: 4 Testing Antimicrobial Sensitivity of Isolates Against Bio – Enzyme (*Citrus Limon*)

sl.no	Tested Organism	Zone Of Inhibition
1.	Klebsiella species	14mm
2.	Proteus species	15mm
3.	Shigella species	17mm

Antimicrobial activity of isolated microbes

Klebisella Pneumoniae

Disc diffusion method- *Shigella Species.*,

Disc diffusion method- *Proteus* species.,

II. RESULT AND DISSCUSSION

The microbes like ***Klebsiella* species, *shigella species***, and *Proteu*s species isolated from cow dung. Testing of antimicrobial activity of isolates with *Citrus limon* ***Klebsiella species*** 14 mm in zone of inhibition in muller hinton Agar medium. *Proteus* species 15 mm in zone of inhibition, *Shigella* species 17 mm zone of inhibition observed.this study concluded Citrus peels bio enzyme is a antimicrobial agent. The present work concluded that the bioenzyme of *Citrus limon* has antimicrobial properties .it ia used as cleanising solution.

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