

PROJECT INFORMATION

Alternative herbal strategies for management of bovine mastitis

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Title of the Project

Alternative herbal strategies for management of bovine mastitis

Funding Agency

Institute

Total Outlay

Rs 30 Lakhs

Duration

3 years

Single / Multi-Institutional

Single

Principal Investigator

Dr. Susitha Rajkumar

Co-Investigators

Dr. Shirish D. Narnaware

Rationale

The plant-based herbal medicine is one of the alternatives to address the issue of bovine mastitis which is a highly economic disease in cattle and buffalo

Research Gaps

Lack of information on effective herbal medicines against bovine mastitis associated pathogens

Objectives

To identify the plants from ethno veterinary importance. 2. To characterize the plant extracts individually and in combination for antimicrobial effect against important bacterial and fungal pathogens. 3. develop herbal preparation for treatment of subclinical and clinical mastitis

Activities

1. Collection of plants and preparation of herbal extracts. 2. Screening of the extracts for antimicrobial property against important bacterial mastitis pathogens. 3. Screening of the plant extracts against biofilm formation. 4. preparation of herbal product and study the effectiveness against bovine sub clinical and clinical mastitis

Treatment Details

1. Identification of plants with medicinal property. 2. Preparation of methanolic extracts of selected herbs. 3. Antimicrobial screening of herbs against bacterial mastitis pathogens by disc diffusion and serial dilution methods. 4. studying the effect of herbal product in the field

Replications

6.0

Observations to be Recorded

1. Identified herbs with medicinal properties. 2. antimicrobial property of herbs against mastitis pathogens. 3. herbal formulation including effective herbs in correct dosage

Expected Output

1. Information on effective herbal agents against bacterial mastitis pathogens. 2. Herbal formulation in optimum dosage

Expected Outcome

1. improved milk yield by reducing the cases of subclinical mastitis by application of herbal product in the field. 2. reduced dependence on chemical antibiotics to treat bovine mastitis and helps in reducing risk for Antimicrobial Resistance

Common pests and diseases

Staphylococcus sp. E coli, fungal pathogens