

PROJECT INFORMATION

Patho-epidemiology and health interventions of respiratory diseases of backyard poultry in coastal areas

PROJECT OVERVIEW

Funding Agency	Institute
Total Outlay	Rs 60 Lakhs
Duration	3 years
Single / Multi-Institutional	Single
Principal Investigator	Dr Susitha Rajkumar
Co-Investigators	Dr Shirish D Narnaware, Sanjay Kumar Uddharwar,

RATIONALE

Disease surveillance is central to maintaining flock health for better productivity. Accurate surveillance of disease conditions, identification and characterization of associated pathogens will facilitate understanding true disease status in poultry flocks in the coastal region, which will help to adopt adequate control or preventive measures against disease outbreaks.

RESEARCH GAPS

There is lack of information regarding the presence of various diseases conditions of backyard poultry. Updated information on the strain or subtypes of various prevalent pathogens causing important disease in backyard poultry is required for adopting control measures like vaccination.

OBJECTIVES

- To study the prevalence of viral and bacterial respiratory diseases in the backyard poultry population in coastal districts.
- To characterize the prevalent viral and bacterial pathogens associated with respiratory diseases by gene-targeted sequence analysis to identify the prevalent strains of virus/bacteria.
- To identify the AMR pattern of bacterial pathogens from poultry respiratory diseases.
- To standardize molecular based diagnostic techniques for simultaneous detection of prevalent pathogens.

ACTIVITIES

- Survey of health status of poultry through questionnaire to collection of biological samples.
- Screening of samples for bacterial and viral pathogens and identification of strains of pathogens by gene sequencing and phylogenetic analysis.
- Identification of AMR pattern of isolated bacterial pathogen.
- Standardization of molecular based diagnostic techniques for simultaneous detection of prevalent pathogens.

EXPERIMENTAL DETAILS

Treatment:	Nil
Fertilizer Doses	Nil
Variety	Nil
Replications:	Nil
Observations:	Location, no of birds, age, breed, sample type, pathogens screened, prevalent bacterial genus, species, viral pathogens, types, genotypes, AMR pattern of bacterial pathogens, phylogenetic analysis results.
GPS Coordinates:	For places of sample collection.

EXPECTED OUTPUT

Updated information on the prevalent diseases in coastal backyard poultry farms. Incidence, pathology, etiological agents, and risk factors of respiratory diseases, strains or subtypes of various prevalent pathogens causing important diseases in backyard poultry. Baseline information for planning vaccination policy. Molecular-based multiplex diagnostic techniques for disease diagnosis.

EXPECTED OUTCOME

Creation of awareness among farmers regarding diseases in backyard poultry and their management. A decrease in the incidence of diseases and mortality in back yard poultry farms by application of disease control measures and an increase in income.

FIELD INFORMATION

When the field was developed:	Nil
What are crops being cultivated season-wise:	Nil
Soil type:	Nil
Soil pH, EC, OC:	Nil
Soil depth:	Nil

Soil NPK and Micronutrient status:	NA
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Common pests and diseases:	NA
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