

Select one title of the degree

All page margins at 0.5"(narrow), Times New Roman font, line spacing 1.0

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**DIRECTORATE OF ADVANCE STUDIES
SINDH AGRICULTURE UNIVERSITY, TANDOJAM**

SUMMARY OF SYNOPSIS FOR M.SC./M.S.(I.T)/M.E./M. PHIL./PHD DEGREE PROGRAM

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Name of student: Name In Full
Department: Name of Department

Bold, capitalize each word, font size 12

Reg: No: PH.D.-2KXX-XY-63
Faculty: A. H. & Vet. Sciences

Not bold, capitalize each word

Title: Lysine and *Bacillus subtilis* supplementation ameliorate dexamethasone-stress induced changes in histomorphology of small intestine of broiler

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Rationale / Problem Statement

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The demand for the inexpensive proteins is increasing dramatically and poultry uptake is forecasted to rise faster worldwide in the coming decade (Abd-El-Samee et al., 2013). The long-term use of dexamethasone leads to dexamethasone stress (DS) which may produce many problems in the poultry (Aengwanich, 2007). The supplementation of the synthetic lysine elevates the nitrogen retention and the protein accretion, which improves the animal growth performance and the immune function (Roy et al., 2000; Salter et al., 1990; Shelton et al., 2011; Fraga et al., 2008; Faluyi et al., 2015). Probiotics are live micro-organisms, which if given in the adequate amount, produce the health benefits to the host by the improvement of the intestinal microbial balance (FAO/WHO, 2002; Foulquié et al., 2006). Therefore, this study has been designed to find out the potential of dietary Lysine and Probiotic (*Bacillus subtilis*) preparation alone and in combination to study the ameliorative effects in dexamethasone induced stress in broiler chicken.

Objectives

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1. Effects of lysine and *Bacillus subtilis* supplementation against dexamethasone-stress induced changes in histomorphology of small intestine of broiler
2. Effects of lysine and *Bacillus subtilis* supplementation against dexamethasone-stress induced changes in antioxidant enzymes of broiler

Brief Methodology

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Total 336 broiler chicks will be initially weighed and randomly divided into seven groups, i.e., positive control; negative control; *B. subtilis* (dose of 100 mg/Kg diet+DS); lysine (dose of 5 g/Kg diet+DS); *B. subtilis* (dose of 100 mg/Kg diet) and lysine (dose of 11 g/Kg diet+DS); *B. subtilis* (dose of 100 mg/ton diet) and lysine (dose of 11 g/Kg diet+DS). Whereas, from day 21- 28, dexamethasone in powder form will be added at the dose of 3 mg/kg diet daily to produce dexamethasone stress (DS). Total duration will be 42 days. Histomorphology and biometry of small intestine will be done using tissue samples. Antioxidant status in response to dexamethasone stress will be evaluated and compared with control on day 28 and at the end of the trial (42 days)

Statistical Design

Data shall be analyzed by one-way analysis of variance (ANOVA) and presented as mean ± SEM.

Signature of student: _____

Date: _____

Supervisory committee

Name and designation

Signature with remarks (if any)

Supervisor

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Dr. Xyz Xyz Xyz
Designation

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Co-Supervisor-I

Dr. Xyz Xyz Xyz
Designation

Co-Supervisor-II

Dr. Xyz Xyz Xyz
Designation

Forwarded By

Date of meeting

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Signature with date

Chairman BOS

Dr. Xyz Xyz Xyz

1. Coordinator PG

Dr. Xyz Xyz Xyz

2. Dean

Dr. Xyz Xyz Xyz

3. DAS

Dr. Xyz Xyz Xyz

Summary page should not exceed one page for Master's synopsis and two pages for PhD synopsis