

INTRODUCTION

Importance of The Study

The use of antibiotics in broiler maintenance will leave a residue that is harmful to human health or the consumer. This is a serious problem experienced by many countries such as European countries, Asia and others. Using tamarind kernel powder and *Lactobacillus reuteri* as prebiotic and probiotic is an alternative that should be chosen to replace the role of antibiotics.

Background

Today the broiler industry is required to produce a low-cholesterol meat, because they have a negative impact on consumer health. With reality as it is, the public demanded broiler feed industry in order to create a feed additive to reduce the amount of cholesterol present in chicken carcasses or broiler meat.

The purpose of the feed additive in feed formulation is to improve the digestibility, consumption, endurance and minimize the level of stress in broilers. Many types of feed additives, among others such as antibiotics, drugs or hormones to stimulate growth. The purpose of antibiotics is to inhibit or kill microorganisms that exist in the broiler, but antibiotics have a negative impact allowing residue left behind and cause health problems in humans who consume (CP Buletin, December 2005).

Lately, the human trend has returned to the nature, look at that it is necessary to develop non-antibiotic feed additives and drugs that have the chemical elements, but uses a natural probiotic and cholesterol-lowering ingredients are natural as well. This tends to be more popular because it has a negative effect lower than the antibiotics.

According Doughari (2006), tamarind plant contains tannin, alkaloids, saponins, sesquiterpene, and flobatamin through phytochemical test. Besides tamarind also have raw fiber that can lower cholesterol. There is very little research on the effects of tamarind to lower cholesterol in chicken, then the research is very important to be implemented for the breeder immediately know the extent of the effect on cholesterol tamarind broiler in meat.

Probiotics were found first in the 19th century by Ellie Metchnikof, since then a great deal about probiotics research conducted by Scientists and doctors as well as experts and Nutrients throughout the world. Biomedical research by clinicians and biomedical and nutrition experts in the world, is one of Strain Lactobaillus rather a strain that has a lot of excess. Benefits include improving the immune system, reduce the frequency of diarrhea, this strain could also improve the profile face's.

Based on the above statement, this research aims to lower cholesterol levels in broiler meat and can also give a good effect on the performance of the broiler and human health will also be considered.

Statement of The Problems

Based on the background, the problems can be described by following questions :

1. Do tamarind kernels powder and *lactobacillus reuteri* can increase performance (Feed intake, ADG, FCR and Mortality) of the broiler ?
2. Do tamarind kernels powder and *lactobacillus reuteri* can make lower the cholesterol levels of the broiler ?
3. What's the best dose to use ?

Potential Benefit

This research was conducted with the aim of as one of the requirements for graduation as bachelor of science in animal science, and then the research is expected to bring a positive impact to the public, especially for farmers to use tamarind as prebiotic and *lactobacillus leuteri* as probiotic for broiler.

Hypothesis

HO : Tamarind Kernel Powder as prebiotic and *Lactobacillus reuteri* as *probiotic* do not have significant effects on cholesterol level and productive performance of broiler.

H1 : Tamarind Kernel Powder as prebiotic and *Lactobacilus reuteri* as *probiotic* have significant effects on cholesterol leves and performance of broiler.