

THESIS

**OVICIDAL EFFECTS OF PINEAPPLE PEEL JUICE (*Ananas comosus* L.)
AS A CONTROL OF ASCARIDIASIS IN CHICKEN (*Gallus domesticus*)
*In Vitro***



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**FACULTY OF VETERINARY MEDICINE
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Thesis

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DECLARATION

I hereby declare that in the thesis entitled:

**Ovicidal Effects of Pineapple Peel Juice (*Ananas comosus* L.)
as a Control of Ascariasis in Chicken (*Gallus domesticus*)
*In Vitro***

There are no works that have ever been submitted to obtain a degree of scholarship in a college and to the best of my knowledge no work or opinion has ever been written or published by anyone else, except those written in this manuscript and mentioned in the references.

Surabaya, 18th March 2022



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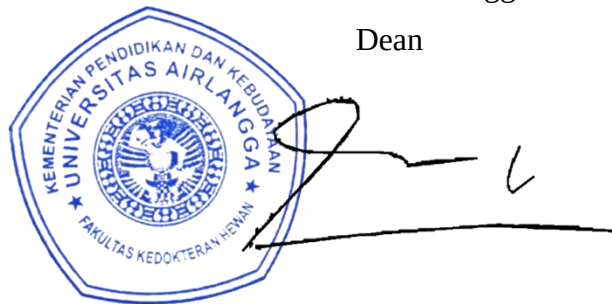
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SUMMARY

Ascariasis is an infection that mainly affects poultry, and is caused by the *Ascaridia galli* worm. The worm infection itself is a major issue in farm production including in poultry farms because it can cause intestinal damage that can lead to inefficient feed conversion, making the chicken thin and sluggish. The infection also causes the chicken to have dull feathers, diarrhea, and lack of appetite (Sonda *et al.*, 2018). The use of ovcidal in the environment is advantageous for inhibiting the development of eggs larvae and thus can break the chain of transmission. However, most of the medications are only effective for mature worms and are less effective in dealing with the larva or the eggs.

This research applied four treatments using pineapple juice concentration levels of 0% as the control group, 5%, 10%, and 20%. Each treatment was repeated six times, each containing 50 worm eggs. The obtained data were analyzed using ANOVA and then followed by the Duncan test. The statistical analysis shows that pineapple peel juice has a visible effect on *A. galli* worm eggs development in vitro. The higher the concentration of the pineapple peel juice applied, the higher the amount of damaged *A. galli* eggs. This proves that pineapple peel juice has antihelminthic properties that increase with the juice's concentration level. 20% is the best concentration level for pineapple peel juice.

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ABSTRACT

The aim of this research was to know whether pineapple peel juice can be used as an ovicidal of *in vitro* *A. galli*. This study used eggs of *A. galli* worms obtained by collecting adult *A. galli* worms from the small intestines of fresh local chickens purchased from traditional markets in Surabaya. The research design used was a completely randomized design (CRD) with four treatments, the concentration of pineapple peel juice was 0% (Control), 5%, 10%, and 20%. Each treatment consisted of six replications, with observations on days 5, 10, 15 and 20. Developed eggs were identified with the presence of larvae within egg and the movement of larvae. The data obtained will be analyzed with the ANOVA Statistical Test with the SPSS device and then followed by the Duncan test. The results of statistical analysis showed that pineapple peel juice had a significant effect on the development of *A. galli* worm eggs *In Vitro*. The number of damaged *A. galli* eggs increased as they were given higher pineapple juice concentration. This proves that pineapple peel juice has higher anthelmintic effect with increasing concentration given. Pineapple peel juice 20% is the best juice concentration

Keywords: Ascariasis, Ovicidal effects, *Ascaridia galli*.

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ABBREVIATION AND SYMBOLS

%	: Percent
cm	: Centimeter
kg	: Kilogram
ml	: Mililiter
mm	: Milimeter
pH	: Power of Hydrogen