

**THE INFLUENCE OF WASTE OF PINEAPPLE'S PEEL (*Ananas  
Comosus(L) Merr*) AS THE SOURCE OF BROMELAIN ENZYME TO  
INCREASE MEAT (Local Beef) QUALITY**

**A THESIS**

Submitted in Partial Fulfillment of the Requirement  
For the Degree of Bachelor of Education  
in Chemistry Education



By:

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**2013**

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## RATIFICATION

Thesis with the following identification:

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BROMELAIN ENZYME TO INCREASE MEAT (LOCAL  
BEEF) QUALITY**

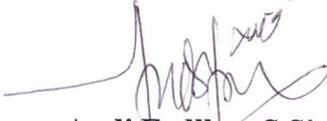
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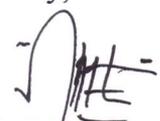
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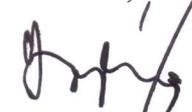
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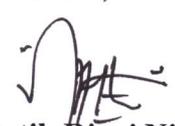
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The Dean of Education and Teacher Training Faculty  
Walisongo State Institute for Islamic Studies

*Assalamu 'alaikum Wr. Wb.*

I inform that I have given guidance, briefing and correction to whatever extent necessary of the following thesis identification:

Title : **The Influence of Waste of Pineapple's Peel (*Ananas Comosus* (L) Merr) As The Source of Bromelain Enzyme to Increase Meat (Local Beef) Quality**

Name of Student : Nur Alawiyah

Student Number : 093711024

Field of Study : Chemistry Education

I state that the thesis is ready to be submitted to Education and Teacher Training Faculty Walisongo State Institute for Islamic Studies to be examined at Munaqasyah session.

*Wassalamu 'alaikum Wr. Wb.*

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*Wassalamu 'alaikum Wr. Wb.*

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## ABSTRACT

Title : *The Influence of Waste of Pineapple's Peel (Ananas Comosus (L) Merr) As The Source of Bromelain Enzyme to Increase Meat (Local Beef) Quality*

Writer : Nur Alawiyah

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In our country pineapple can be processed to be many kind of foods like cake, jelly and variety of beverages too. Most of producer usually just use flesh of pineapple and throw away it's peel. Whereas peel of pineapple can be used as a meat tenderizer because in the pineapple, both in flesh and peel contain Bromelain enzyme to tenderize meat. The tenderness of meat is one of the most determining parameters of meat quality. Based on that background, this thesis presents the the influence of waste of pineapple's peel (*Ananas Comosus (L) Merr*) as the source of bromelain enzyme to increase meat (local beef) quality. The primary purpose of this research is to know the influence of pineapple's peel (*Ananas Comosus (L) Merr*) as the source of Bromelain enzyme to increase meat quality.

This research uses experimental method. This research had been conducted in the chemistry laboratory of Education and Teacher Training Faculty of Walisongo State Institute for Islamic Studies and in the laboratory of technology of Agriculture faculty, Gadjah Mada University Yogyakarta on April 2013. The subjects of this research are waste of pineapple's peel (*Ananas Comosus (L) Merr*) and local beef that were gotten from Jrah traditional market, Ngaliyan-Semarang. The data technique analysis of this research is descriptive statistics.

The result of this research shows that there is influence of waste of pineapple's peel as source of bromelain enzyme to increase meat quality, especially tenderness. The higher the bromelain enzyme concentration used, the more tender the meat, although will be may increase the score of cooking loss. The meat that is submerged with the highest concentration (40%) of bromelain enzyme solution has score of 0.6662 (table 4.4) and 45% of cooking loss (table 4.3). The organoleptic quality identification of meat that is submerged with bromelain enzyme solution, generally is better than the control meat. The meat that is submerged with bromelain enzyme solution gives better appearance, flavor, juiciness, and tenderness than the control meat.

## **MOTTO**

“Live as if you were to die tomorrow and Learn as if you were to live forever.”

-Mahatma Gandhi-

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This thesis is arranged to fulfillment of the Requirement For the Degree of bachelor of education in Chemistry Education of Education and Teacher Training Faculty of Walisongo State Institute for Islamic Studies. The writer can finish this thesis because always gets support from variety parts, so i want to say thank you very much go to:

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Finally, the researcher expects this Thesis may be helpful for all. Amin.

Semarang, June, 27<sup>th</sup> 2013

The writer,

**Nur Alawiyah**

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