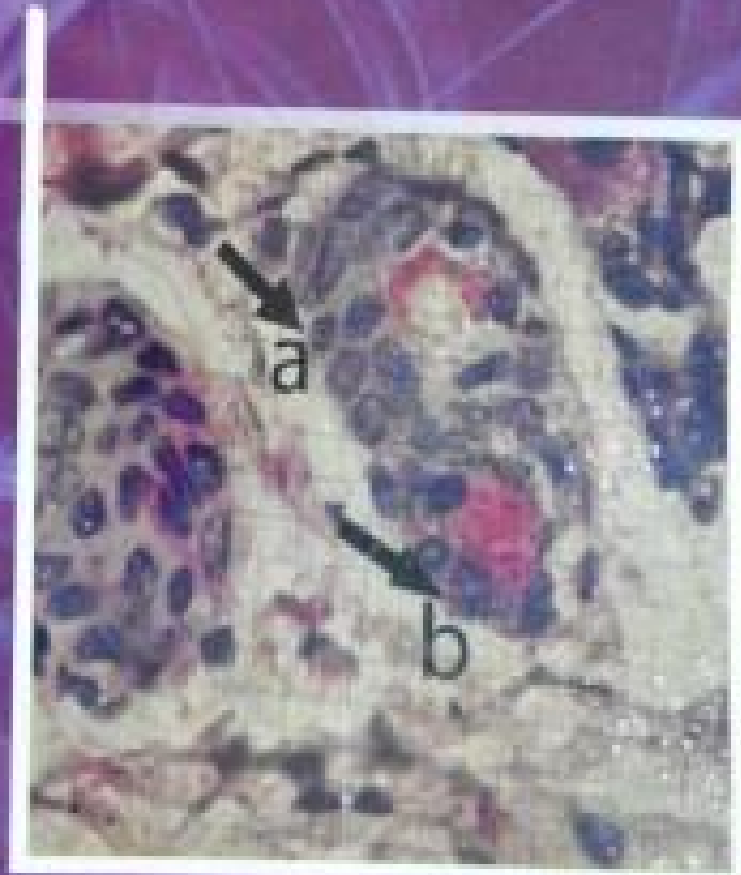


VETERINARIA

Medika



Vet Med | Vol. 7 | No. 1 | Hal 1-99 | Surabaya, Feb 2014

FAKULTAS KEDOKTERAN HEWAN
UNIVERSITAS AIRLANGGA

Table of Contents

No.	Title	Page
1	Grant of Ethanol Extract of Seeds Papaya (<i>Carica papaya</i>) in Female Rats (<i>Rattus norvegicus</i>) Antifertilitas Material, As an Alternative to Number and Quality of Egg Cells	1 - 6
2	Effect of Infusum Salam Leaves (<i>Eugenia polyantha</i>) on Blood Glucose Level on The Rat (<i>Rattus norvegicus</i>) in Alloxan Induced	7 - 16
3	Potential of Phytase Ezymes from Rumen Bacteria on SEM Analysis Structural Changes of Rice Bran as Broiler Feed	17 - 22
4	The Comparison of Morphology Between Bovine Oocyte Vitrification Before and After In Vitro Maturation	23 - 30
5	The Effect of Exposing Pregnant Rat (<i>Rattus norvegicus</i>) to Particulate Matter on Congenital Disorder and Resorption of Embryos	31 - 36
6	HA Gene Phyloanalysis of Influenza H1N1 2009 Virus in Surabaya	37 - 42
7	Effect of Seminal Plasm of Cow on Goat's Spermatozoa Plasma Membran in Milk Diluter on Semen Freezing	43 - 48
8	Histopathological View Pyramid Cell on Cerebrum of White Rat (<i>Rattus norvegicus</i>) were Exposed with Methylmercury which Administrated with CDP-Choline As Neuroprotective Agent	49 - 56
9	Giving Epigallocatechin gallate (EGCG) Toward the Expression of Estrogen Receptor at Female White Mouse (<i>Rattus norvegicus</i>)	57 - 62
10	Human Resource Management Goad Farm of The Cross Breed Etawa Goat Independent Farm, Farmer Groups and Businesses in the Town of Turi Sleman Regency	57 - 62
11	The Pattern of Antimicrobial Susceptibility of Salmonella sp Isolated from Beef	67 - 72
12	Potential Mycotoxin Binders on Histopathology of the Mammary Gland Experiencing Neoplasia in Pregnant Mice (<i>Mus musculus</i>) with Exposed Zearalenone	73 - 80
13	Potential of Mycotoxin Binders on Weight and Length of Fetus Pregnant Mice (<i>Mus musculus</i>) with Zearalenone Exposure	81 - 86
14	Prevalence of Worm Disease in Cattle Gastrointestinal Peranakan Ongole (PO) and Simental Cattle in The Subdistrict Laren, District Lamongan	87 - 92
15	The Giving of Anti- <i>Toxoplasma gondii</i> Membran Immunoglobulin Y Before Infection Reduce Apoptotic Index Liver Mice	93 - 99

Potential of Phytase Ezymes from Rumen Bacteria on SEM Analysis Structural Changes of Rice Bran as Broiler Feed

Potensi Enzim Fitase Asal Bakteri Rumen Terhadap Analisis SEM Perubahan Struktur Dedak Padi sebagai Pakan Ayam Pedaging

1. Mirni Lamid --> Dosen Fakultas Kedokteran Hewan / mirnilamid@yahoo.com
2. Ni Nyoman Tri Puspaningsih --> Dosen Fakultas Sains dan Teknologi / .
3. One Asmarani --> Instiute Tropical of Diseases Universitas Airlangga / .

Abstract

Phytase enzymes is one belonging to a group that is able to hydrolyze phosphatase in the form of phytate compounds Myo - inositol (1,2,3,4,5,6) hexsa into myo - inositol phosphatase and organic phosphate . In the gastrointestinal tract of non -ruminant livestock (poultry) there is no phytase enzyme , it causes the content in rice bran phytate compounds are difficult to digest because of the strong chelating properties , so the phytate wasted with feces (stool) . Restrictions on the use of rice bran in the diet because the fiber content and high phytic acid . One alternative to reduce the phytate content of the feed is to use phytase enzyme producing bacteria. Rumen bacteria (*Actinobacillus* sp and *Bacillus pumilus*) were expected to produce the enzyme phytase to hydrolyze phytic acid (myo-inositol 1,2,3,4,5,6-hexakisphosphate) rice bran to produce a series of orthophosphate in organic and phosphoric more low (inositol pentaphosphate to monophosphate) and myo - inositol eventually become free, so that all minerals such as P, Ca, Mg, Fe, and Zn were an essential mineral to be released and used for the growth of broiler chickens. The result of research can be concluded that Scanning Elektron Microscope Scanning Elektron Microscope (SEM) analysis of the surface with the addition of rice bran phytase enzyme causes bond breaking force with myo-inositol phosphate acid groups that show changes in the structure of phytic irregular bond

Keyword : *Actinobacillus*, sp, *Bacillus*, *pumilus*, Enzyme, phytase, Rice, bran, Phytic, acid,

Daftar Pustaka :

1. **Graft, E., (1983)**. Phytic acid a natural antioxidant. USA : J. Biol. Chem. 262(24) : 11647-11650
2. **Kurniati, A, (2011)**. Analisis SEM dan XRD terhadap perubahan struktur permukaan dan kristalinitas jerami padi dan enceng gondok akibat aktivitas Î-L-Arabinofuranosidase rekombinan. Surabaya : Tesis. Fakultas Sains dan Teknologi. Universitas Airlangga
3. **Mirni L, N.N. Tri Puspaningsih dan Widya Paramita L, (2006)**. Penggunaan Bakteri Xilanolitik Asal Rumen Sebagai Inokulum pada Jerami Padi sebagai Upaya peningkatan Mutu Pakan Ternak Ruminansia. Surabaya : Lembaga Penelitian Universitas Airlangga.