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PERANAN PENDIDIKAN WANITA DALAM MENINGKATKAN PEMBANGUNAN SUMBER DAYA MANUSIA DAN PEREKONOMIAN MASYARAKAT

SERTA

KERJASAMA UNAND DAN UNISEL MALAYSIA

OLEH :

LABORATORIUM TEKNOLOGI HASIL TERNAK/ BIOTEKNOLOGI

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KIAT (Kelompok Intermediasi Alih Teknologi) CANTIK (Cabang Agribisnis Naungan Tingkat Instansi Kampus)
FAKULTAS PETERNAKAN UNIVERSITAS ANDALAS

22 April 2013

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Bekerja Sama Dengan :

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SUSUNAN ACARA

Jam	Acara		Penanggung Jawab
22 April 2013 08.00 – 08.45	Registrasi (Ruang Sidang Senat Lantai 4 Gedung Rektorat Unand, Padang, Sumatera Barat)		Hendri P ,S.Pt, MSi Ir.Sabrina,MP
09.00 – 09.30	Pembukaan 1. Laporan Ketua Panitia (Prof.Drh.Hj.Endang Purwati, MS., Ph.D) 2. Sambutan Dekan Faterna Unand 3. Sambuan Rektor Unand 4. Sambutan dan Pembukaan oleh Gubernur Propinsi Sumatera Barat		Dr.Ir. Hj. Husmaini, MP
09.30 – 10.00	➢ Penandatanganan MOU Unand dan Unisel ➢ Penandatanganan MOA antara Lab. Teknologi Hasil Ternak Unand, Lab. Kimia Analisa Lingkungan FMIPA Unand dan Lab. Mikrobiologi Farmasi Unand dengan Unisel		Prof. Dr. Salam N Aritonang Dr. Rusfidra, MP
10.00 - 10.10	Istirahat		
10.10 – 10.25	Prof. (E) Dato' Dr. Abdul Latif Ibrahim (International Islamic Academy For Life Sciences And Biotechnology Malaysia) Topik. *Membangunkan Masyarakat Berilmu yang Berakhlak, Bermoral dan Beretika Tinggi-Satu Usaha IAB untuk DNA*		Prof. Dr. Sumaryati Syukur
10.25 – 10.40	Dr. Ir. H. Djusman Sajuti (Wakil Kepala LIPI Jakarta), Topik : *Peran Wanita Indonesia menunjang Wirausaha.*		
10.40 – 10.55	Prof.Dr.Ir.H.Syamsuddin Hasan, M.Sc. (Dekan Fakultas Peternakan Unhas Makasar) Topik : *Peranan Wanita Peternakan Sangat Menunjang Perekonomian Rakyat*		
10.55 – 11.05	Puan Norazah Mohammad Nawawi, Malaysia, Topik : *IAB Women in Science International Programme*		
11.05 – 11.10	Snack		Dr. Ir. Elly Roza
	Ruang Seminar I (Moderator : Dr.Ir. Hj. Husmaini,MP)	**Ruang Seminar II (Moderator : Dr. Ir. Elly Roza)**	
11.10 – 11.20	Puan Nor Suhaila Bt Yaacob, Malaysia, Topik : *Role of microbes in Green Technology*	Tertia Delia Nova. Unand, Topik : *Effect of level turmeric (Curcuma domestica Val) ginger (Curcuma Roxb xanthorrhiza) and in feed of duck to prevent bird flu*	Dr.Ir. Hj. Husmaini, MP
11.20 – 11.30	Puan Fridelina bt Sjahrir,Malaysia, Topik : *Role of Rhodococcus in the Biotransformation of Industrial water*	Herin Mawarti dan Kusworini Handono, Unipdu Topik : *Vitamin D, Asupan Vitamin D dan Aktifitas Penyakit Pada Pasien Lupus Eritematosus Sistemik*	

Effect of level turmeric (Curcuma domestica Val) ginger (Curcuma Roxb xanthorrhiza) and in feed of duck to prevent bird flu

Tertia Delia Nova
Department of Animal Production, Faculty of Animal Husbandry
Andalas University
Padang West Sumatera Indonesia

ABSTRACT

This study aimed to examine the effects of turmeric and ginger which given to increasing the body's defense ducks to prevent bird flu. This study uses the local ducks Sikumbang janti experimental design using completely randomized design in a split plot (2 x 4), with 6 replications. Variables in view the increase in immunoglobulins in the blood serum of ducks, inspected the laboratory. Feed is provided in a form which was given water mass. Given feeding ad libitum. The variables measured were blood serum of ducks and taken to the laboratory to measure the level of immunity

Keywords: duck, turmeric, ginger, blood serum, bird flu

Effect of level turmeric (Curcuma domestica Val) ginger (Curcuma Roxb xanthorrhiza) and in feed of duck to prevent bird flu

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INTRODUCTION

Ducks are known by their resistance to disease than chickens that recently attacked the bird flu outbreak, the illness is usually ducks are not too obtrusive and does not cause rapid death. Attacks bird flu virus or *Avian influenza* in ducks that cause sudden death, in recently spread to six provinces in Indonesia. The results of the study while the agriculture ministry, the attack is a type of bird flu virus,

Large-scale chicken farms sitem biosekurity they have implemented strictly, which we do not know for sure that they have implemented the consumption of turmeric in their herd due to turmeric is not a feed material for turmeric is a feed additive, they do not tell exactly how many standard turmeric for poultry. In the several visits with students seen from poultry feed stock material was powdered turmeric, warehouse clerk was asked at the powder is turmeric. The company was not attacked by the bird flu disease. Herb turmeric has been known by the people it useful to increase the body's resistance to disease, but has not been given to poultry in anticipation of bird flu. Duck farmers in rural areas is now trying to prevent bird flu and giving traditional medicine duck with grated turmeric to be mixed in drinking water or feed, but has not been proven empirically the extent to which the role of turmeric in anticipation of bird flu. Some duck breeders who have applied tradisionai herb turmeric is included in feed and drinking water in anticipation of bird flu turned out to yield no more duck that died suddenly symptoms of disease such as bird flu.

The Bird flu (*Avian influenza)* in the duck

Bird Flu or *Avian influenza* (AI) which attacked thousands of ducks in Central Java, Yogyakarta and East Java indicated a new strain of bird flu. Even this virus began attacking other birds such as chickens and quail. This follows many reports of broilers and chicken that died suddenly in some areas. The cases of mass death on duck farms identified a large part due to the AI virus subtype H5N1 clade 2.3.2.1 although some viral Newcastle Disease (ND). According clade virus is not a result of mutations of the virus before AI clade 2.1 which is endemic in Indonesia. Certainly, there is a new virus new entry into Indonesia (Asmara. 2012)

According to the research (Damayanti, 2013), Central Veterinary Research in Agricultural Research and Development Ministry of Agriculture, the test results pathogenicity H5N1 virus circulating in Indonesia are carried out in the laboratory of Animal Biosafety Level 3 (ABSL3) Modular Balivet BB belonging to the bird flu virus subgroup 2.1.3 and 2.3. 2 shows the high pathogenicity in ducks and cause of death in the span of 2-7 days after infection. It was concluded that both the bird flu virus subclade 2.1.3 and 2.3.2 have the same level of ferocity in ducks. However, the death of the ducks that occurred recently is not necessarily all due to virus subgroup 2.3.2, but can also be caused by a virus subgroup 2.1.3.

The potential of turmeric and ginger as a feed additive for duck

Ginger and turmeric are two types of plant commonly used as a spice in cooking Indonesian society and medicinal. Several studies in vitro, proving that the active compound in turmeric can inhibit the growth of fungi, viruses and bacteria both gram positive and gram negative as *Escherchia coli, and Staphylococcus pneumoniae Klebsiela aereus* (Hidayati, 2002). Some chemical constituents of rhizome of turmeric is known, that 6% volatile oil consisting of monoterpenes and sesquiterpenes compound classes (includes *zingiberen, alpha* and *beta-turmerone),* yellow pigment called curcuminoid as much as 5% (including *curcumin* 50-60 %, *monodesmetoksicurcumin* and

bidesmetoksicurcumin), protein, phosphorus, potassium, iron and vitamin C (Animous, 2012).

These studies have been conducted to determine the efficacy of ginger and turmeric to chicken broilers. In these studies it is known that given of ginger and turmeric for broiler chickens were pretty good impact. The results of a study reported by Sufriyanto and Mohandas (2005) states that ginger extract at 0.5 g per liter of drinking water and turmeric extract at 0:25 g per liter of water capable of producing the same meat of broiler chickens fed synthetic vitamins and antibiotics. Curcumin is the active compound in a relatively kunmyit phenolic compounds, it has an hydroxyl group plays a major role in the activity of curcumin (Priyadarsini et al., 2003, and Kumar and Sharma, 2006). The presence of hydroxyl groups are easily oxidized facilitate curcumin donate hydrogen and electrons to free radicals, so that free radicals to be stable (Pietta, 2000).

Kunyit or Tumeric (Curcuma domestica Val) when added in the diet, can increase the activity of the digestive organs, stimulates the gallbladder wall secrete bile and stimulates pancreatic lymph containing the enzyme amylase, lipase, and protease which is useful to improve the digestion of feed ingredients such as carbohydrates, fats, and proteins . (Supriadi, 2001). Besides essential oils contained in turmeric can accelerate gastric emptying.

Turmeric or Curcuma domestica is a herb plants from Asia, especially South East Asia region. Turmeric plant classification based on classification and nomenclature of plants as follows, Kingdom Plantarum, Division Spermatophyta, Sub-division Angiospermae, Class Monocotyledone, Order Zingiberaces, Family Zingiberaceae, Genus Curcuma, Species Curcuma domestica (Rukmana, 2001). Composition contained in turmeric plant is curcuminoid compound that gives turmeric yellow border. Curcuminoids is mostly in the form of curcumin that has utility as an anti-oxidant, anti-inflammatory, cancer preventing effects as well as lowering the risk of heart attack.

Meanwhile, according Rukmana (1995) included turmeric plant that has many uses, especially the rhizomes much utilized for traditional medicine, textile dyes, food and crafts, cooking flavoring, seasonings, spices, and cosmetic ingredients. As a medicinal plant turmeric useful as a pain medicine itching,

tingling, swollen gums, sores, shortness of breath, abdominal pain, ulcers, sore spleen, intestine scurvy, gout, jaundice, improve digestion and stimulate bowel movements and relieve flatulence (karminativa) , anti-diarrheal, emetic drugs bile (kolagoga), ulceration (skabida), insect venom (disinfectant), tranquilizers (sedativa), and detoxification (antidota).

Ginger (Curcuma Roxb xanthorrhiza) rhizome has a variety of properties, namely as an analgesic, antibacterial, antifungal, antidiabetic, antidiarrheal, antiinflammatory, antihepatotoksik, antioxidant, antitumor, depressants, diuretics, hypolipidemic, and insecticides. Herawati (2006) the study concluded that the addition of red ginger in feed rations to 2.0% in relatively good influence on body weight gain, total feed intake, feed conversion ratio (FCR) and total red blood cell Starch is composed of ash, protein, fat, carbohydrates, crude fiber, curcuminoids, potassium, sodium, calcium, magnesium, iron, manganese and kadnium. As for the components of essential oils composed of *feladren ginger, camphor, tumerol, tolilmetilkarbinol, ar-kurkumen, zingiberen, kuzerenon, germakron, ß-tumereon* and *xantorizol* (Rahardjo & Rostiana, 2005).

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