**PENGARUH PENAMBAHAN PUPUK UREA DAN UMUR POTONG TERHADAP KANDUNGAN ASAM PRUSIK, PRODUKSI, DAN KANDUNGAN NUTRIEN**

**SORGUM BROWN MIDRIB**

Proposal Tesis

Program Studi Magister Ilmu Peternakan



Diajukan oleh:

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15/388774/PPT/00912

PROGRAM STUDI MAGISTER ILMU PETERNAKAN

FAKULTAS PETERNAKAN

UNIVERSITAS GADJAH MADA

YOGYAKARTA

September 2017

**Proposal Penelitian**

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PENGARUH PENAMBAHAN PUPUK UREA DAN UMUR POTONG TERHADAP KANDUNGAN ASAM PRUSIK, PRODUKSI, DAN KANDUNGAN NUTRIEN

SORGUM BROWN MIDRIB

# INTISARI

Nofi Isnaini

15/388774/PPT/00912

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# PENDAHULUAN

## Latar Belakang

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## Tujuan Penelitian

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## Manfaat Penelitian

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# TINJAUAN PUSTAKA

## Sub Bab 1 (Judul 1)

### Anak sub bab 1

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### Anak sub bab 2

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### Anak sub bab ke-n

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## Sub Bab 2 (Judul 2)

### Anak sub bab 1

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### Anak sub bab 2

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### Anak sub bab ke-n

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## Sub Bab ke-n (Judul ke-n)

### Anak sub bab 1

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### Anak sub bab 2

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### Anak sub bab ke-n

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# LANDASAN TEORI DAN HIPOTESIS

## Landasan Teori

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## Hipotesis

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# MATERI DAN METODE

## Waktu dan Tempat Penelitian

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## Materi Penelitian

### Alat penelitian

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### Bahan penelitian

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## Metode Penelitian

### Rancangan percobaan

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### Metodologi penelitian

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### Variabel yang diteliti

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### Analisis hasil

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## Jadwal Penelitian

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| 1 |  |  |
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# DAFTAR PUSTAKA

***Jurnal ilmiah***

Acharya, S.N. 2009. Veldt cicer milkvetch. Can. J. Plant Sci. 89(3):511-513.

Akhadiarto, S. dan N. Rofiq. 2008. Pengaruh pemberian ransum yang mengandung tepung kunyit (*Curcuma domestica*, Val) terhadap pertambahan bobot badan domba induk dan bobot lahir anak. J. Indon. Trop. Anim. Agric. 33(4):268-273.

Astuti, A., C.T. Noviandi, A. Agus, S.P.S. Budhi, R. Utomo, and E. Septiani. 2017. The effect of duration of storage and storage method on chemical composition and *in vitro* digestibility of complete calf pellet. Italian J. Anim. Sci. 16:100 (Abstr.).

de Veth, M.J. and E.S. Kolver. 2001. Digestion of ryegrass pasture in response to change in pH in continuous culture. J. Dairy Sci. 84(6):1449-1457.

Noviandi, C.T., K. Neal, J.-S. Eun, M.D. Peel, B.L. Waldron, D.R. ZoBell, and B.R. Min. 2014. Comparison of alfalfa, birdsfoot trefoil, and cicer milkvetch in combination with 25, 50, or 75% tall fescue in a continuous-culture system. Prof. Anim. Sci. 30(1):23-32.

***Prosiding seminar***

Beauchemin, K.A., L. Holtshausen, and J.-S. Eun. 2008. Use of enzymes in beef and dairy cattle diets. Pages 60-71 in 44th Eastern Nutrition Conference of the Animal Nutrition Association of Canada (ANAC). University of Guelph, Guelph, ON, Canada.

Agus, A., I. Khuluq, I. Sumantri, C.T. Noviandi, and Nuryono. 2010. Aflatoxin M1 excretion in the milk of tropical dairy cow fed contaminated aflatoxin B1 in the diet. Pages 282-285 in Proc. The 5th International Seminar on Tropical Animal Production. Faculty of Animal Science, Universitas Gadjah Mada, Yogyakarta.

Noviandi, C.T., Z. Mukmila, R. Utomo, S.P.S. Budhi, A. Agus, and A. Astuti. 2016. *In vitro* digestibility of fermented rice straw supplemented with cassava tuber and leaves using ruminal fluid of bali cattle. Pages 712-714 in Proc. The 17th Asian-Australasian Association of Animal Production Societies Animal Science Congress, Fukuoka, Japan.

***Buku (text book)***

AOAC. 2005. Official Methods of Analysis. 18th ed. AOAC International, Gaithersburg, MD.

Baldridge, D.E. and R.G. Lohmiller. 1990. Montana Interagency Plant Materials Handbook for Forage Production, Conservation, Reclamation, and Wildlife. Montana State University, Bozeman, MT.

Baliarti, E., N. Ngadiyono, S. Triatmojo, G. Murdjito, I.G.S. Budisatria, Panjono, T.S.M. Widi, dan C.T. Noviandi. 2008. Pedoman Pemeliharaan Sapi. Program Pendampingan Peternak, Kerjasama antara Fakultas Peternakan Universitas Gadjah Mada dengan DelPHE Project. Yogyakarta.

El Shaer, H.M. and V.R. Squires. 2015. Halophytic and Salt Tolerant Feedstuffs: Impacts On Nutrition, Physiology and Reproduction of Livestock. CRC Press, Sometown.

McDonald, P., R.A. Erdwards, J.F.D. Greenhalgh, C.A. Morgan, L.A. Sinclair, and R.G. Wilkinson. 2011. Animal Nutrition. 7th ed. Pearson Education Ltd., Essex.

NRC. 2000. Nutrient Requirements of Beef Cattle. 7th revised ed. National Academic Press, Washington, DC.

***Bagian dari buku (book chapter)***

Broderick, G.A. and R.C. Cochran. 2000. *In vitro* and *in situ* methods for estimating digestibility with reference to protein degradability. Pages 53-85 in Feeding Systems and Feed Evaluation Models. M. K. Theodorou and J. France, ed. CABI Pub., Wallingford, Oxon, UK, New York.

de Klein, C.A.M., C. Pinares-Patino, and G.C. Waghorn. 2009. Greenhouse gas emissions. Pages 1-32 in Environmental Impacts of Pasture-Based Farming. R. W. McDowell, ed. CAB International, Oxfordshire.

Devendra, C. 1997. Crop residues for feeding animals in Asia: Technology development and adoption in crop/livestock systems. Pages 241-267 in Crop Residuals in Sustainable Mixed Crop/livestock Farming System C. Renard, ed. CAB International, Wallingford, UK.

Patra, A.K., B.-R. Min, and J. Saxena. 2012. Dietary tannins on microbial ecology of the gastrointestinal tract in ruminants. Pages 237-262 in Dietary Phytochemicals and Microbes. A. K. Patra, ed. Springer, New York.

***Tesis / disertasi***

Arnata, I.W. 2009. Teknologi bioproses pembuatan bioetanol dari ubi kayu (*Manihot utilisima*) menggunakan kultur campuran Trichoderma viride, *Aspergillus niger* dan *Saccharomyces cerevisiae*. Tesis. Sekolah Pasca Sarjana. Institut Pertanian Bogor, Bogor.

Dschaak, C.M. 2009. Production performance and profiles of milk fatty acids of lactating dairy cows fed whole safflower seed containing high fat and low fiber. Thesis. Dept. Animal, Dairy, and Veterinary Sciences. Utah State University, Logan, UT.

Holt, M.S. 2010. Effects of corn silage hybrids and dietary nonforage fiber sources on productive performance in early lactating dairy cows fed high forage diets. Thesis. Dept. Animal, Dairy, and Veterinary Sciences. Utah State University, Logan, UT.

***Internet / website***

Berger, L.L. and N.A. Pyatt. 2005. Nutritional and Management Factors Affecting Marbling Deposition. [http://www.cabpartners.com/news/research/ berger\_nutrition.pdf](http://www.cabpartners.com/news/research/%20berger_nutrition.pdf). Diakses tanggal 2 Mei 2012.

Lalman, D.L. and H.B. Sewell. 1993. Rations for Growing and Finishing Beef Cattle. [http://extension.missouri.edu/publications/DisplayPrinterFriendly Pub.aspx?P=G2066](http://extension.missouri.edu/publications/DisplayPrinterFriendly%20Pub.aspx?P=G2066). Diakses tanggal 6 Maret 2013.

Tilley, D., D. Ogle, and L.S. John. 2008. Cicer Milkvetch. Plant Guide. <http://plants.usda.gov/java/>. Diakses tanggal 2 Februari 2011.

# LAMPIRAN

Lampiran 1. Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

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