

# **PENENTUAN KADAR N DAN P POC URIN KAMBING DENGAN PENAMBAHAN DAUN LAMTORO (*LEUCAENA LEUCOCEPHALA*) DAN BONGGOL PISANG**

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## **ABSTRAK**

Penelitian bertujuan untuk menentukan kadar nitrogen dalam nitrogen dan fosfor POC urin kambing dengan penambahan daun lamtoro (*Leucaena leucocephala*) dan bonggol pisang, menentukan komposisi berat daun lamtoro dan bonggol pisang yang optimal berdasarkan kadar N dan P, mengetahui waktu fermentasi yang tepat untuk mendapatkan kadar N dan P yang optimal, menganalisis pengaruh POC dengan waktu fermentasi yang berbeda terhadap pertumbuhan tanaman tinggi dan lebar daun cabai merah dan menganalisis perubahan warna, bau dan pH pada POC urin kambing. Kadar nitrogen ditentukan dengan metode Kjeldahl sementara kadar fosfor dianalisis dengan metode spektrofotometer UV-Vis. Hasil penelitian menunjukkan bahwa kadar N dan P tertinggi pada POC urin kambing yaitu kadar N-organik 15,167% dan kadar P 0,9924% kadar yang didapatkan belum sesuai dengan Peraturan Menteri Pertanian Nomor 70/Permentan/SR.140/10/2011 yaitu 3 – 6% . Belum ada komposisi berat daun lamtoro dan bonggol pisang yang memiliki kadar N dan P yang sesuai dengan Peraturan Menteri Pertanian Nomor 70/Permentan/SR.140/10/2011. Waktu fermentasi 15 hari merupakan waktu optimal untuk mendapatkan kadar N dan P tertinggi. Pemberian POC dengan lama waktu fermentasi yang berbeda memiliki pengaruh yang signifikan terhadap pertumbuhan tanaman cabai merah. Tanaman cabai merah memiliki tinggi rata-rata 2,92 cm, rata-rata lebar daun 0,54 cm, rata-rata berat basah 2,328 gram dan rata-rata berat kering 0,397 gram. POC urin kambing mengalami perubahan warna, bau dan pH seiring dengan bertambahnya waktu fermentasi.

Kata kunci : urin kambing, daun lamtoro, bonggol pisang, kadar N dan P, lama fermentasi

**DETERMINATION OF THE LEVELS OF N AND P POC OF GOAT URINE WITH THE  
ADDITION OF LAMTORO LEAVES (*LEUCAENA LEUCOCEPHALA*) AND BANANA  
WEEVIL**

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**ABSTRACT**

The aims of the study were to determine the nitrogen content in nitrogen and phosphorus POC of goat urine with the addition of lamtoro leaves (*Leucaena leucocephala*) and banana weevil, determine the optimal composition of the weight of lamtoro leaves and banana weeds based on the levels of N and P, determine the appropriate fermentation time to obtain N levels and P in accordance with the standard, analyze the effect of POC with different fermentation times on plant growth in height and leaf width of red chili and analyzed changes in color, odor and pH in POC. The nitrogen content was determined by the Kjeldahl method while the phosphorus content was analyzed by the UV-Vis spectrophotometer method. The results showed that the highest levels of N and P in goat urine POC, namely organic N levels of 15.167% and P levels of 0.9924%, the levels obtained were not in accordance with the Regulation of the Minister of Agriculture Number 70/Permentan/SR.140/10/2011, namely 3 – 6% . There is no composition of the weight of lamtoro leaves and banana weeds that have levels of N and P in accordance with the Regulation of the Minister of Agriculture Number 70/Permentan/SR.140/10/2011. Fermentation time of 15 days is the optimal time to get the highest levels of N and P. Giving POC with different fermentation time has a significant effect on the growth of red chili plants. Red chili plants have an average height of 2.92 cm, an average leaf width of 0.54 cm, an average wet weight of 2.328 grams and an average dry weight of 0.397 grams. The POC of goat urine changed color, odor and pH with increasing fermentation time.

Keywords : goat urine, lamtoro leaf, banana weevil, levels of N and P, duration of fermentation