

## ABSTRAK

### **PENGARUH SUBSTITUSI DAUN SINGKONG DENGAN AZOLLA (*Azolla pinnata*) TERHADAP PRODUKSI, KADAR PROTEIN DAN KADAR LAKTOSA SUSU KAMBING PERAH PERANAKAN ETAWA**

Oleh

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Penelitian ini bertujuan untuk mengetahui pengaruh substitusi daun singkong dengan azolla terhadap produksi, kadar protein dan laktosa susu kambing perah Peranakan Etawa (PE). Penelitian ini dilaksanakan pada bulan Oktober–November 2025. Lokasi penelitian ini dilakukan di Peternakan Soccer Mania, Desa Sumber Gede, Kabupaten Lampung Timur, Provinsi Lampung. Analisis susu kambing dilakukan di Laboratorium Produksi Ternak, Jurusan Peternakan, Fakultas Pertanian, Universitas Lampung. Rancangan percobaan yang digunakan adalah Rancangan Acak Kelompok (RAK) dengan tiga perlakuan dan tiga kelompok sebagai ulangan, sehingga terdapat sembilan satuan percobaan. Perlakuan yang digunakan yaitu P0 (70% daun singkong + 30% ampas tahu); P1 (65% daun singkong + 30% ampas tahu + 5% azolla); dan P2 (60% daun singkong + 30% ampas tahu + 10% azolla). Data yang diperoleh dianalisis menggunakan *analysis of variance* (ANOVA) dengan taraf 5% dan dilanjutkan dengan uji Duncan. Hasil penelitian ini didapatkan bahwa perlakuan ransum P0, P1 dan P2 tidak berpengaruh nyata ( $P > 0,05$ ) terhadap produksi, kadar protein dan laktosa susu kambing perah PE. Namun perlakuan P0, P1, P2 menunjukkan hasil kadar protein dan kadar laktosa yang memenuhi standar yang ada di Indonesia.

**Kata kunci:** Kambing Peranakan Etawa, Azolla, Produksi Susu, Laktosa, Protein, Susu Kambing.

## ABSTRACT

### THE EFFECT OF CASSAVA LEAF SUBSTITUTION WITH AZOLLA (*Azolla pinnata*) ON MILK PRODUCTION, PROTEIN CONTENT, AND LACTOSE CONTENT OF PERANAKAN ETAWA DAIRY GOATS

By

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This study aimed to determine the effect of substituting cassava leaves with azolla on milk production, protein content, and lactose content of Peranakan Etawa (PE) dairy goats. The research was conducted from October to November 2025 at Soccer Mania Farm, Sumber Gede Village, East Lampung Regency, Lampung Province, Indonesia. Milk analysis was carried out at the Animal Production Laboratory, Department of Animal Husbandry, Faculty of Agriculture, University of Lampung. The experimental design used was a Randomized Block Design (RBD) consisting of three treatments and three blocks as replications, resulting in nine experimental units. The treatments were as follows: P0 (70% cassava leaves + 30% tofu by-product); P1 (65% cassava leaves + 30% tofu by-product + 5% azolla); and P2 (60% cassava leaves + 30% tofu by-product + 10% azolla). The data obtained were analyzed using analysis of variance (ANOVA) at a 5% significance level and followed by Duncan's multiple range test. The results showed that dietary treatments P0, P1, and P2 had no significant effect ( $P > 0.05$ ) on milk production, protein content, and lactose content of PE dairy goat milk. However, treatments P0, P1, and P2 showed protein and lactose levels that complied with the standards set in Indonesia.

**Kata kunci:** Peranakan Etawa Goat, Azolla, Milk Production, Lactose, Protein, Goat Milk.