

## TINGKAH LAKU MAKAN, KECUKUPAN NUTRIEN, DAN PRODUKTIVITAS SAPI BALI INDUK YANG DIPELIHARA SECARA SEMI INTENSIF DI PERKEBUNAN KELAPA SAWIT PADA MUSIM BERBEDA

### INTISARI

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Penelitian dilakukan untuk mengetahui produktivitas sapi Bali induk pada musim hujan dan kemarau di kebun kelapa sawit. Ternak yang digunakan merupakan koloni sapi Bali (23 induk dewasa dan 1 pejantan) dengan pemeliharaan semi intensif (08.00-17.00 digembalakan di area kebun kelapa sawit dan selanjutnya dikandangkan tanpa pemberian pakan tambahan). Pembagian musim didasarkan pada curah hujan setiap bulannya, musim hujan bulan November-April dan kemarau bulan Mei-Oktober. Hasil dianalisis secara statistik uji analisis varians pola searah (*One way ANOVA*). Hasil penelitian produksi segar hijauan di kebun kelapa sawit pada musim hujan dan kemarau berturut-turut 570,30±320,40 dan 390,71±210,67 kg/ha dengan kandungan bahan kering, berturut-turut 24,91±3,77 dan 27,12±2,68%. Produksi bahan kering hijauan pada musim hujan dan musim kemarau berturut-turut 140,27±80,07 dan 100,77±50,87 kg/ha. Kandungan *neutral detergent fiber* (NDF) hijauan pada musim hujan 68,96±0,71% dan musim kemarau 74,21±0,86%. Pada musim hujan selama digembalakan ternak mampu makan 7,28 jam sedangkan musim kemarau hanya 3,48 jam. Pada musim hujan dan kemarau ternak memiliki konsumsi bahan kering, berturut-turut 4,62 kg/hari (1,83%BB) dan 4,7 kg/hari (1,96%BB) dengan konsumsi *total digestible nutrient* (TDN) berturut-turut 2,05 dan 2,16 kg. Indeks reproduksi induk (IRI) pada musim hujan dan kemarau berturut-turut 0,69±0,36 dan 0,76±0,46, sedangkan produktivitas induk (PI) berturut-turut 69,15±18,84 dan 75,02±27,04. Hasil menunjukkan terjadi penurunan produksi segar dan kualitas hijauan di area kebun kelapa sawit selama musim kemarau ( $P<0,01$ ), namun produksi bahan kering tidak berbeda. Fraksi serat (NDF) meningkat selama musim kemarau ( $P<0,01$ ) akibat penuaan tanaman yang lebih cepat. Keterbatasan hijauan segar di musim kemarau menyebabkan terjadinya perubahan tingkah laku lama makan ternak ( $P<0,01$ ). Ternak lebih banyak menghabiskan waktu makan untuk mengonsumsi daun sawit selama musim kemarau ( $P<0,01$ ) mencapai 67,84% dari total waktu makan. Keberadaan daun sawit membantu ternak dalam memenuhi konsumsi bahan kering selama musim kemarau. Konsumsi dan kecukupan ternak di kedua musim berbeda tidak nyata. Konsumsi dan kecukupan ternak yang tidak berbeda pada kedua musim diikuti oleh produktivitas induk. Sapi Bali induk di kebun kelapa sawit memiliki (IRI) dan produktivitas induk (PI) yang berbeda tidak nyata. Disimpulkan bahwa sapi Bali induk mempunyai produktivitas tidak berbeda pada musim hujan dan kemarau, sehingga penerapan manajemen perkawinan sepanjang tahun di kebun kelapa sawit sangat memungkinkan untuk dilakukan.

Kata kunci: hijauan, kebun kelapa sawit, musim, produktivitas induk, tingkah laku

## FEEDING BEHAVIOUR, NUTRIENT ADEQUACY AND PRODUCTIVITY OF BALI COWS KEPT IN OIL PALM PLANTATION WITH SEMI-INTENSIVE SYSTEM AT DIFFERENT SEASON

### ABSTRACT

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The study was conducted to determine feeding behavior, nutrient adequacy, and productivity of Bali cows in the rainy and dry season in oil palm plantations. The cattle used were Bali cattle colonies (23 cows and 1 bull) with the semi-intensive system (8 a.m until 5 p.m grazing in the oil palm plantation area and housing at night without additional feeding). Seasonal distribution is based on rainfall in a month, rainy season (November-April) and dry season (May-October). The results were analyzed statistically by analysis of variance (One way ANOVA). The results showed fresh forage production in oil palm plantations in the rainy and dry seasons was  $570.30 \pm 320.40$  and  $390.71 \pm 210.67$  kg/ha respectively, with dry matter content,  $24.91 \pm 3.77$  and  $27.12 \pm 2.68\%$ , respectively. Dry matter production in the rainy season and dry season,  $140.27 \pm 80.07$  and  $100.77 \pm 50.87$  kg/ha, respectively. The neutral detergent fiber (NDF) content in the rainy season was  $68.96 \pm 0.71\%$  and the dry season was  $74.21 \pm 0.86\%$ . During the rainy season, cows were able to eat 7.28 hours while the dry season was only 3.48 hours. In the rainy and dry seasons, cows had dry material consumption, 4.62 kg/day (1.83% BW) and 4.7 kg/day (1.96% BW) respectively with total digestible nutrient (TDN) consumption were 2.05 and 2.16 kg respectively. The cows reproduction index (CRI) in the rainy and dry seasons was  $0.69 \pm 0.36$  and  $0.76 \pm 0.46$  respectively, while the cows productivity (CP) was  $69.15 \pm 18.84$  and  $75.02 \pm 27.04$  respectively. The results showed a decrease in fresh production and forage quality in the oil palm plantation area during the dry season ( $P < 0.01$ ), but dry matter production was not significantly different. Fiber fraction (NDF) increased during the dry season ( $P < 0.01$ ) due to faster plant maturation. The limitation of forage in the dry season causes changes in the behavior of feeding time ( $P < 0.01$ ). During the rainy season, cattle are able to eat 7.28 hours/day while the dry season was only 3.48 hours/day. Cows spent more time feeding to eat palm leaves during the dry season ( $P < 0.01$ ) until 67.84% of the total feeding time. Oil palm leaves become an alternative source for cows during the dry season. The consumption and adequacy of cows in the two seasons were not significantly different. In the rainy and dry seasons, cows had dry matter consumption, 4.62 kg/day and 4.7 kg/day respectively. The consumption and adequacy of cows that were not different in the two seasons were followed by cows productivity. Bali cows in oil palm plantations had CRI and CP that were not different. It was concluded that Bali cows have no different productivity in the rainy and dry seasons, so the implementation of year-round matting management in oil palm plantations is very possible.

Keywords: Forage, Oil palm plantation, seasons, Cows productivity, Behavior