Jarunee Aim-Oeb 2008: Potential of Oil Palm Fronds for Ruminants Feed.
Master of Science (Agriculture), Major Field: Animal Science, Department of Animal Science. Thesis Advisor: Associate Professor Angkana Hanbunchong, M.S. 133 pages.

The research was conducted to evaluate the potential of use of oil palm fronds (OPF) for ruminants feed. Yield, chemical composition, feed intake and dry matter and organic matter digestibility, the ruminal dry matter and organic degradability, acceptability and the impact of use for feed on milk yield and compositions and on blood parameters of goat offered with OPF were evaluated. It was found that yield of part of OPF getting from 1-15 harvesting year old of oil palm tree was increased with increasing the age of harvesting. Total frond weigh, weight of the petiole, the dry matter weight of leaf blade and rachis of the OPF getting from the stem with had the different inflorescence, differ significantly ($P<0.01$). The organic matter and ash content of the OPF getting from the same stem but different in position were not significantly different ($P>0.05$). The crude protein (CP), crude fiber (CF), ether extract (EE), neutral detergent fiber (NDF), acid detergent fiber (ADF) and ash content between total OPF and leaf blade was significantly different ($P<0.01$). Different ensilage method provided different ($P<0.01$) in CF, EE, NDF, ADF and ash content as well as the pH value of the ensiled OPF. However, part of OPF and ensilage method had no influences in ruminal dry matter degradation parameters ($P>0.05$), but influenced on the organic matter degradation parameters ($P<0.05$). Dry matter intake expressing as body weight percentage was influenced by part of frond ($P<0.05$) and by ensilage method ($P<0.01$). Feeding the goat with ensilage OPF at deferent level of concentrate supplementation, provided milk with not significantly different ($P>0.05$) in fat, protein, lactose, total solid, solid not fat, pH value, specific gravity, density as well as somatic cell count and provided blood with not significant different in urea, glucose and Triiodothyronine. This research result implies that OPF had very high potential in biomass, chemical composition, digestibility and availability for ruminant feed resources in Thailand.

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