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## Species Diversity and the Ruminant Dry Matter Degradability of Grasses Fed to Fighting Bulls in Southern Thailand

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### Abstract

The research was conducted to elucidate the feed for species and the ruminal dry matter degradability of grasses that the farmers used as feed for fighting bulls in Nakhonsithammarat, Southern Thailand. Two consecutive studies were undertaken. The survey research was done in the first phase in four districts of Nakhonsithammarat (Mueng, Pra-Prom, Chalermprakiet and Thungsong) during October 2003 to February 2004. In all surveying areas sixty farmers who used the same basket type for grass collection were previously determined as the data collection sources. The collection of grass samples was done five times periodically and simultaneous in each surveying area. The grass samples obtained from each farm were classified according to the species. Only the principal grass species obtained from each farm of each surveying area were calculated as the percentage of grass species being used for bulls' feed of each location. It was found that only 10 species of the principal grasses were used for bull's feed in all surveying locations. The samples of the main grass species were prepared for the ruminal degradability study. These were *Hemarthria compressa*, *Microstegium ciliatum*, *Ischaemum magnum*, *Commelina diffusa*, *Hymenachne acutigluma*, *Ischaemum timorensis*, *Brachiaria mutica*, *Axonopus compressus*, *Paspalum conjugatum* and *Pennisetum purpureum*. Among these species, *Hemarthria compressa* was the most popular grass that the farmer used for fighting bulls' feed in Pra-Prom, Mueng and Chalermprakiet districts, whereas *Microstegium ciliatum* was the grass that the farmers offered most frequently to the bulls in Thungsong district. When the sample grasses were used to study the ruminal degradability of the dry matter using the nylon bag technique, it was found that the potential degradability of the dry matter for all grasses species varied from 72.5% for *Hymenachne acutigluma* to 87.8% for *Axonopus compressus* ( $p > 0.05$ ). These research results imply that the diversity of grass species for fighting bulls feed depends mostly on the location of the surveying area.

**Keywords:** Fighting bulls, grass species diversity, ruminal degradability, Thailand