

Suwannee Kaskamalas 2006: Effect of Variety and Cutting Stage on Yield and Nutritive Value of Napier Silage. Master of Science (Agriculture), Major Field: Agronomy, Department of Agronomy. Thesis Advisor: Professor Sayan Tudsri, Ph.D. 129 pages.
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The experiment was conducted at Suwanvajokasikit Research Station Pakchong, Nakhonratchasima from June 2003 to March 2004. Thirteen napier grass varieties include Dwarf small, Dwarf medium, Mott dwarf napier, Muaklek dwarf napier, Tifton 23AxR174, Hybrid napier1, Hybrid napier2, Merkeron, Wruk wona, Taiwan A25, Taiwan A148, Common napier and King napier. The grass were all cut at 30, 45 and 90-day intervals for 270 days. Taiwan A148 produced the highest yield at all cutting intervals. Yield of all grass varieties except Dwarf small, Dwarf medium and , Mott dwarf napier increased with increasing cutting intervals. Dwarf small produced herbage of higher quality than the other grass species in term of crude protein concentration and had higher leaf content. The crude protein concentration of all grass decreased with increasing cutting intervals.

In term of silage characteristics, it was found that the optimum cutting frequency for silage making was after 90 days of regrowth, except for Wruk wona and King napier which cutting could be carried out after 45 days of regrowth. Dwarf medium, Hybrid napier1 and Dwarf small are not considered suitable for silage making due to their higher pH for effective conservation. Silage made from the longest cutting interval treatment was lower in crude protein except Mott dwarf napier , Muaklek dwarf napier and Dwarf medium, but higher in NDF and ADF.

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