

Yield and chemical composition evaluation of eleven alfalfa (*Medicago sativa*) varieties under cutting in high land region at Merida state, Venezuela.

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Abstract

A field experiment was carried in Jají, Mérida state, Venezuela, at "Santa Filomena" farm; at an altitude of 1600 m, in order to evaluate eleven alfalfa varieties (Alfa-50, Alfa-100, AS -13, Euver, Lanfagene, Peluda Peruana, WL-515, WL-514, WL-516, WL-605 y WL-7 special). A randomised block design with three replications was used. They were cut on the average of every 45 days. Significant differences ($P < 0.05$) were detected among yield means, only for the first year. The average yield was 17080 kg of DM/ha.year. Plant height was different ($P < 0.05$) among varieties with an average of 66 cm. The leaf/stem ratio, for the different varieties was similar and the average was 1.33. Crude protein and phosphorus content were different ($P < 0.05$), but potassium content was not. Protein means ranged from 21.09 to 24.02 %, and phosphorus ranged from 0.31 to 0.46 % : The potassium average was 4.18 %. Under the trial condition of this study, all varieties were almost similar in dry matter production, but WL-516 and Lanfagene yielded close to 20 t DM/ha during the first year of cutting.

Key words: *Medicago sativa*, dry matter yield, leaf/ stem ratios, crude protein content, phosphorus content, potassium content.

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