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## The marine algae *Sargassum* spp. (Sargassaceae) as feed for sheep in tropical and subtropical regions

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The objective of this study was to evaluate *Sargassum* meal as feed for sheep through the measures of *in vivo* digestibility, dry matter degradability, pH, ammonia and volatile fatty acids in rumen. The *Sargassum* algae used in this experiment were collected at the end of spring, when they are more abundant, bigger, and have completed their reproductive cycle. Four tons (wet weight) were collected manually from the intertidal zone of La Paz bay, Baja California Sur, Mexico. These algae were sun-dried and ground in a hammer mill to obtain the *Sargassum* meal. Four fistulated Pelibuey sheep, were fed daily with diets containing the marine algae (MA) at different levels (0, 10, 20 and 30 %), using a 4 x 4 Latin-square design experiment. Feed intake was not affected ( $p > 0.05$ ). Water consumption and urine excretion increased with MA ( $p < 0.05$ ;  $r^2 = 0.54$  and  $r^2 = 0.74$ , respectively). In all treatments dry matter digestibility was of 74%-79%, and crude protein digestibility was of 5%-88%. Acid detergent fiber (59%-65%) and neutral detergent fiber (55%-66%) digestibility were greater in all treatments with MA. Ruminal pH was greater in all groups fed with MA ( $p < 0.05$ ). Ammonium concentration was not influenced ( $p > 0.05$ ) by MA. Ruminal volatile fatty acids decreased in all MA groups ( $p < 0.05$ ). The marine algae *Sargassum* spp. can be used as a feed supplement for sheep, especially in tropical and subtropical regions where these marine algae are available.

Palabras clave: Marine algae, *Sargassum*, digestibility, sheep, ruminal fermentation, volatile fatty acids.

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