



SDI Review Form 1.6

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| Journal Name: | International Journal of Plant & Soil Science |
| Manuscript Number: | 2013_IJPSS_5997 |
| Title of the Manuscript: | INDIGENOUS BROWSE PLANTS USED FOR GOATS IN AKWA IBOM STATE, NIGERIA; THEIR PHYTOCHEMICAL, MINERAL, NUTRIENT AND ANTINUTRIENT CONTENTS. |
| Type of the Article | Research Paper |

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

| | Reviewer's comment | Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i> |
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| <u>Compulsory</u> REVISION comments | <p>-Which criteria were followed to choose the four species studied within the 20 species selected by the goats from the perspective of this work.</p> <p>- Briefly describe a little about the phenology of the plants studied, since this has impact on their chemical composition, especially in antinutritional content and phytochemical compounds due to the seasonal variation, so it is required indicate at what point in the phenology of the plant or season of the year were sampled, and due that there were not more samples at other times of year, what would you expect about the results in other seasons.</p> <p>- Scan results of phytochemicals, although qualitative, show a high potential of compounds with pharmacological effects that may conflict with its use as a nutrient supplement, how you can differentiate this with the evidence presented?</p> <p>- Assuming that the species considered do not have harmful effect when fed as supplements, the recommendation of a protein supplement should be taken with more caution since only <i>M. fulvum</i> can be used optimally for goats or cattle. Assuming an 90% digestibility of organic matter (OM) and considering that these four species have about 90% of MO and that efficiency of rumen microorganisms is 210 g of CP / kg OM this gives us $(210 \times .90 \times .90 = 170 \text{ or } 17\% \text{ CP})$, that only <i>M. fulvum</i> is below this value, the remaining</p> | |



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| | <p>species may require additional fermentable carbohydrates to be an efficient usage of nitrogen in the supplement.</p> <p>- According to the results, <i>R. vomitoria</i> have with respect to potassium 2.56 g / kg DM and <i>P. hirsuta</i> 1.92 g / kg DM and the requirement of goats according to the Nutrient Requirements of Small Ruminants: Sheep, Goats, cervids, and New World Camelids (2007) is 2.9 to 4.5 g / kg, so that the content of these plants is marginal, similarly according to your results of Ca content of <i>P. hirsuta</i> is .20 g / kg and that of <i>R. vomitoria</i> is 0.14 g / kg, while the requirement is 2.0 to 7.0 g / kg DM, so it can be considered deficient. Likewise the results of Mg, P and Fe seem be deficient according to your report and the requirements of the new edition of the NRC.</p> | |
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| <u>Minor</u> REVISION comments | <ul style="list-style-type: none">- In row 73, materials and methods, it is necessary mention of the analysis to be performed- Explain why you used the old system of crude fiber analysis instead of the detergent system of analysis currently used for ruminant diets, and explain if the estimate of the carbohydrate content is equivalent to the old calculation of nitrogen-free extract (currently unused) or which is the difference that the authors considered for this calculation-In row 151 the crude protein value correspond to R. vomitoria and not P. hirsuta according to table 4- Expressing the statistical significance of the differences between means and specify the units of expression of nutritive compounds (DM basis or on a wet basis) | |
| <u>Optional/General</u> comments | <ul style="list-style-type: none">- The Macromineral content is expressed in g / kg and the microminerals in mg / kg or ppm according to the reported requirements in animals so the results of this work should be reported in these terms. | |

Note: Anonymous Reviewer