

Review Form 1.6

Journal Name:	International Journal of Plant & Soil Science
Manuscript Number:	Ms_IJPSS_77425
Title of the Manuscript:	ANTI-HYPERGLYCEMIC EFFICIENCY OF THE AQUEOUS SEED EXTRACT OF MUCUNA PRURIENS IN NICOTINAMIDE-STREPTOZOTOCIN-INDUCED DIABETIC WISTAR RATS.
Type of the Article	Investigation

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.
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PART 1: Review Comments

	Reviewer's comment	Author's comment (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)
Compulsory REVISION comments	<p>In the "Introduction" section the authors should add more arguments to justify the use of plant products for the treatment of diabetes mellitus, highlighting the importance of this type of compounds where their economic factor is included.</p> <p>The authors wrote: "The use of <i>Mucuna pruriens</i> in the treatment of various pathological conditions including diabetes mellitus is explored regularly." The question is: is there literature that supports this statement? Besides diabetes mellitus, what other diseases have been treated using this plant?</p> <p>It is desirable that the authors briefly describe how they made the <i>M. pruriens</i> extract (number of grains of the plant in what amount of water or solvent, etc). If the method for making the extract is already described, it is convenient to put the appropriate bibliography.</p> <p>The authors wrote: "For sighting study two animals were administered with 300 and 500 mg / kg dose of <i>M. pruriens</i> aqueous seed extract respectively". The question is: how are 300 or 500 mg / kg of aqueous extract measured? In an aqueous extract, how much mass of extract material does it have? What was the technique to determine the mass of <i>M. pruriens</i> in the extract and thus be able to give the dose that the authors administer? what was the route of administration of the extract? oral route, peritoneal route, etc?</p> <p>Can the authors clarify the reason for using female Wistar rats in the Acute toxicity study? Why only female?. Would the authors expect different results using male rats?</p> <p>The authors wrote the following: "For sighting study two animals were administered with 300 and 500 mg / kg dose of <i>M. pruriens</i> aqueous seed extract respectively". Subsequently, they wrote the following: "As no mortality was observed, three animals were administered with 2000 mg / kg dose of <i>M. pruriens</i> aqueous seed extract for the main study." Is it possible to know the 50 lethal dose of the extract? What is your reason for using a much higher dose of extract when the observational study was done using up to 500 mg / kg? The authors should explain the temporality of use of the extract in the rats treated with this extract; I mean, did they only get one dose? a daily dose?</p> <p>It is desirable that the authors describe in greater detail the biochemical techniques they used. It would be convenient to point out the brands of the kits that were used as well as the reliability range of those equipment.</p> <p>It is desirable that the authors describe in greater detail the reason for using a minimal number of rats for their toxicity study of the extract of <i>M. pruriens</i> (Table 1. Oral acute toxicity study). For statistical purposes, the number of animals per group is insignificant</p> <p>It is desirable that the authors place the statistical significance of comparison between the groups in Tables 2 and 3. On the other hand, when describing the biochemical results, the result of the statistical evaluation in each of the determined metabolites was not written.</p> <p>Figure 1 shows histopathological images of the pancreas from the different treatment groups. It is worth noting that if the stain used is haematoxylin and eosin,</p>	<p>Correct was done in the introduction section as suggested by reviewer.</p> <p>Yes, other medicinal benefits and proper literature have been included.</p> <p>It was mentioned in the methodology section.</p> <p>The seeds were ground into fine powder and the dose measurement taken in milligram (mg), then dissolved in water for easy administration to the experimental animals.</p> <p>Route of administration was orally.</p> <p>Female wistar rats were used in the toxicity study because it has been proven that they are more sensitive to chemicals than the males, so they are used in easy detection of toxicities.</p> <p>According to the ethics for toxicity study in animals, tests are carried out by exposing the animals to very high doses of the substances under study (100 to 1000 times) higher than what can be administered to humans, to ascertain the safety for human subjects. Fixed dose procedure following the guidelines No. 420 of OECD 2001 was followed.</p> <p>The biochemical techniques used have been included as suggested.</p> <p>It was carried out according to the ethics mentioned in the methodology section.</p> <p>The images obtained were reported as such. Colour contrasts may be from system camera.</p>

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	<p>the images presented have many color contrasts between them and do not have adequate visual quality. It is suggested to improve the presentation of the images</p> <p>In the section "Discussion", in paragraph 3, the authors describe results of the metabolites that were already described (without statistical data) in the results. This information is duplicated and to be in the "discussion" section it must be analyzed and not just described.</p> <p>It is noteworthy that the authors do not carry out a true "discussion" of their data. The authors only give what other works have done and do not perform a true analysis of their results, highlighting the importance of these results for use in humans. In addition, they do not make a true comparison of their results with others already made.</p>	
Minor REVISION comments	<p>It is suggested that the authors significantly improve the discussion section of their work so that it can highlight the use of its extract and the usefulness it may have in the treatment of diabetes mellitus in humans.</p>	<p>The discussion has been improved as suggested.</p>
Optional/General comments	<p>None</p>	

PART 2:

	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>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	