Reviewer's report

Title: Evaluation of Hypoglycemic Potential of Tridax procumbens (Linn.)

Version: 4 Date: 31 March 2009

Reviewer: Theophile Dimo

Reviewer's report:

Minor Essential Revisions

Motivation to choose two doses (250 and 500 mg/kg)? An explanation needs to be given why these concentrations were used. How do these concentrations relate to traditional use?

The reason given by the authors is not sufficient because it’s possible that the reduction by 50% of the dose used (250 mg/kg) could also show a pronounced effect of the plant.

The authors should add the quantity of the powder and the yield of extraction in material and methods section.

Extract currently used in folk medicine? Is it the methanolic extract? Or aqueous extract? In the background, the authors said that the plant extract is used in flock medicine either alone or mixed with other plants to treat diabetes. This sentence stand as motivation to assess this plant in the treatment of diabetes, but in the answer, it is stated “no information is available about the current use of this plant in folk medicine in diabetic cases”. The authors should justify this contradiction.

In toxicity the author should determine the LD50 (Lethal dose 50). For justify doses used, the author must provide references. The World Health Organization request to use doses up to 5 g / kg. The number of animals used, the sex, in acute toxicity and the parameters studied are not significant to conclude that the extract is not toxic. Base in reference n° 12, no sign of toxicity was observed at 2g/kg, but this does not exclude a possibility of toxicity at 2.1 to 5g/kg. Authors should perform a complete toxicity since the reference given was about wound healing and probably not oral toxicity. It’s advisable by WHO guideline on medicinal plant (WHO 2002) to reach 5g/kg. Further more, the number of rats used is small to claim that the plant is not toxic.

In table 5, the statistical analysis should be done with the diabetic control value at 120 min. The signification of the letter is absent. In all table, (e.g tables 1, 2, 4 and 5) the signification of the latter a, b and c should be given.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

I declare that I have no competing interests