

# Effects of graded levels of boiled wild sunflower (*Tithonia diversifolia* Hemsl A. Gray) leaf meal on growth and carcass characteristics of rabbits.

Foku Vitalis Khan<sup>1</sup>, Defang Henry Fualefac<sup>1,2</sup>, Kana Sagne Derrick Augustin<sup>1</sup>, Amandine Matho<sup>1</sup>, Fonteh Florence Anyangwe Angaba<sup>1,3</sup>, Mube Kuietche Hervé<sup>1</sup>, Ndukum Julius Awah<sup>1,3</sup>.

<sup>1</sup> Department of Animal Production, Faculty of Agronomy and Agricultural Sciences, University of Dschang, Tel: +237 233 45 13 81, [udsrectorat@univ-dschang.org](mailto:udsrectorat@univ-dschang.org) <http://www.univ-dschang.org/>, P.O. Box 222, Dschang, Cameroon

<sup>2</sup> Faculty of Agriculture and Veterinary Medicines, Government Technical Teachers Training College, Kumba, University of Buea, [info@ubuea.cm](mailto:info@ubuea.cm), (+237) 233322760, P.O Box 249 Buea road, 237 Kumba, Cameroon;

<sup>3</sup> Faculty of Science, University of Bamenda, Bambili, NW Region, Cameroon. + (237) 233 360 033 OR + (237) 233 366 029, [info@uniba-edu.cm](mailto:info@uniba-edu.cm) + (237) 233 366 030, P.O. Box 39, Bambili

[khanvitalis@yahoo.co.uk](mailto:khanvitalis@yahoo.co.uk), +237675464127; [fdefang@yahoo.com](mailto:fdefang@yahoo.com), +237672919237; [Amandine\\_matho@yahoo.com](mailto:Amandine_matho@yahoo.com), +237675226560; [kanasagne@yahoo.ca](mailto:kanasagne@yahoo.ca), +237654801256; [fontehflorence@yahoo.com](mailto:fontehflorence@yahoo.com), +237677577840; [mubehervemkb@yahoo.com](mailto:mubehervemkb@yahoo.com), +237674596159; [awahndukum@yahoo.com](mailto:awahndukum@yahoo.com), 237677236435

Corresponding author's email: [khanvitalis@yahoo.co.uk](mailto:khanvitalis@yahoo.co.uk)

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## 1 RESUME

To contribute solutions to the problem of animal protein shortage for human consumption in Cameroon, a study was conducted at the Teaching and Research Farm of the University of Dschang- Cameroon to evaluate the effects of inclusion levels of *Tithonia diversifolia* leaf meal (TDLM) on growth performance and carcass characteristics of rabbits. The leaves were chopped, boiled for 5 minutes, drained, sundried, milled and analysed for proximate composition in the Laboratory of Animal Nutrition. The leaf meal was used to formulate 4 experimental diets containing 0% (control) 15, 20 and 25% of the TDLM, corresponding to T0, T1, T2 and T3, respectively. A total of 40 (20 males and 20 females) 2-months-old rabbits, weighing  $1000 \pm 125$ g were randomly assigned to the 4 dietary treatments in a 4 x 10 replicates in a completely randomized design. The live weights of the animals were evaluated weekly for 9 weeks. Eight (8) rabbits (4 males and 4 females) per treatment were randomly selected and sacrificed for carcass evaluation. The data collected were then submitted to one-way Analysis of Variance (ANOVA). Mean differences were separated using Duncan. The results showed that incorporation of TDLM induced a decrease in daily feed consumption. The least daily feed intake was observed in treatment T3 (109.14g/d) while the highest daily weight gain (24.49g/d) and the least feed conversion ratio (4.61) were also observed in the same treatment T3. However, no significant differences were observed for these parameters ( $P > 0.05$ ) between the treatments although daily weight gain was higher and feed conversion ratio lower in the males as compared to the females. Carcass yield (C.Y.) was higher in the control T1 (52.39%) though comparable ( $P > 0.05$ ) with all the other treatments. Abdominal fat was significantly ( $P < 0.05$ ) lower (1.90%) in the treatment T0 but it was comparable to T3 while it was highest (2.28%) in T2. However, C.Y. was higher in males and abdominal fat was higher in females when sex was considered. The relative weight of the lungs was highest in T1 (0.55%), liver in T2 (2.25%), kidneys in T1 (0.56%) and

the heart in treatment T2 (0.25%) though, there were no significant differences ( $P > 0.05$ ) observed in organs weights. Although there were significant differences between organs of different sexes, no regular pattern was maintained. These all signified nutritional adequacy at all levels of inclusion of TDLM, improving growth performance at the inclusion level of 25%. *T. diversifolia* leaves boiled for 5 minutes, sundried and milled can therefore be used as an alternative ingredient which when included in the rations of rabbits up to 25%, still compares well with conventional ingredients in growth and carcass performance irrespective of the sex. However, the use of TDLM could significantly reduce the cost of feeding and enhance meat production as it is relatively more abundant as compared to other ingredients.

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