

## **The Effects of Vespa Amino Acid Mixture on Cycling Performance During a 20k Time Trial.**

Sebastian Haynes and Adam G. Parker

Human Performance Laboratory; Department of Kinesiology; Angelo State University; San Angelo, TX

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*Category: Undergraduate*

*Advisor / Mentor: Parker AG (adam.parker@angelo.edu)*

### ABSTRACT

Vespa amino acid mixture (VAAM) is a nutritional supplement derived from the Asian Mandarin Wasp (*Vespa Mandarina*). VAAM has been shown to enhance lipolysis in rat adipocytes and is purported to improve endurance performance via enhanced fat metabolism. The purpose of this study was to examine the effects VAAM on cycling performance during a 20k time trial. 10 trained, male cyclists participated in this single-blind, randomized, cross-over study. Participants were asked to perform two 20-kilometer time trials on a CompuTrainer (*RacerMate, Inc. Seattle, WA*) on two separate occasions separated by at least 48 hours. Participants consumed either an 80 mL serving of VAAM (70 mg of wasp extract, 8 g of carbohydrate, 31 kcal) or 80 mL of sports drink placebo (PL) (4.7 g carbohydrate, 18 kcal) in a randomized, cross-over fashion. Dependent variables included time to complete the 20k distance (TT), peak power, average power, max heart rate (MHR), and average heart rate. Data was analyzed using paired t-tests. The participants' MHR was significantly lower ( $p = .021$ ) after consuming VAAM ( $174.4 \pm 13.6$  bpm) vs. PL ( $178.8 \pm 14$  bpm). There was no significant difference ( $p = .349$ ) in TT performance; VAAM ( $38.3 \pm 3.50$  min) vs. PL ( $37.9 \pm 2.87$  min). There were no other significant differences between supplement groups. Although we found no significant effects on cycling performance, future research should examine the effects of VAAM during more prolonged and/or exhaustive endurance exercise.