

**THE EFFECTS OF *Carica papaya* JUICE ON SPERM'S QUALITY IN
OBESE RATS**

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**Final Year Project Report Submitted in
Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science (Hons.) Biology
in the Faculty of Applied Sciences
Universiti Teknologi MARA**

JULY 2015

ACKNOWLEDGEMENTS

First and foremost, I would like to express my sincere gratitude to my supervisor, Madam Syarifah Faezah binti Syed Mohamad for her guidance and support throughout the entire process of completing this thesis. Her patience and effort in teaching me, endless encouragement and motivation had helped me in many ways. I could not have imagined having a better supervisor for my Degree study.

Second, I would also like to thank my co-supervisor, Miss Farah Amna binti Othman for her support and comments in order to improve my thesis writing. Besides, her guidance during the laboratory works had ensure the work to be conducted in the correct ways.

Third, I would like to thank the lab assistant, Mr Mohd Shahril Imran bin Abdul Aziz who had provided me with sufficient apparatus and materials during laboratory work. His willingness to help during the laboratory works had lead me to get the best results for my final year project.

Last but not least, I would like to thank my parents, Mr Khairul Kamal bin Abd Rahman and Madam Rabiah binti Hj Abdul Rahman for their existence through thick and thin, encouragement and morale supports for me to complete my thesis. Not to forget, my family members and friends whom I can always rely on to lift my spirit when I am about to give up. Their positive words had reminded me to keep striving to achieve my actual goals.

(Nurliyana binti Khairul Kamal)

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ABSTRACT

THE EFFECTS OF *Carica papaya* JUICE ON SPERM'S QUALITY IN OBESE RATS

Obesity is one of the leading causes of death worldwide. Fortunately, *Carica papaya* has been traditionally used to treat obesity problem. Being obesity accused to be one of the reasons of infertility. The objectives of this research are to determine the effect of *Carica papaya* juice uptake on sperm quality (sperm count, sperm morphology, sperm motility, sperm viability) and to determine the anti-obesity properties of *Carica papaya* juice on rat's body weight. 15 rats will be divided into three groups of five rats. The groups are; normal group, papaya group and obesity group. All rats were purchased at the same age and weight around 150 g. Rats in treatment and obesity group were put on weight by ingesting food pellets covered with butter. Next, *Carica papaya* juice were given to the papaya group for three weeks. Sperms from epididymis were collected for its quality assessment. The parameters assessed included sperm count, sperm morphology, sperm motility and sperm viability were observed under a light microscope. According to the results, sperm morphology showed negative results and none of the sperm analysis data were significant ($p > 0.05$). For sperm motility of papaya group, fast progressive is 5.48%, slow progressive is 1.00%, non-progressive is 5.00% and immotile is 67.00%. For sperm viability, viable sperm is 74.40% while non-viable sperm is 25.60%. Sperm concentration of papaya group is 6.60 millions/mL while percentages of normal and abnormal sperm were 40.70% and 59.30% respectively. On the other hand, *Carica papaya* proved to has anti-obesity properties as it was able to decrease rat's body weight gained by 2.66 g after three weeks with $p > 0.05$.