

The Ultrastructure and Histochemistry of Fat Body Cells of the Adult Female Red Flour Beetle, *Tribolium castaneum* Herbst.

Mohammed S. Al-Khalifa

Department of Zoology, College of Science, King Saud University, Riyadh, Saudi Arabia

The histochemistry and ultrastructure of the fat body cells of the adult female red flour beetle, *Tribolium castaneum* Herbst. are investigated both with the light and electron microscope. Sequential changes within the fat body cells towards egg maturation including increase in free ribosomes and rough endoplasmic reticulum as well as the development of more Golgi complexes and associated vesicles were observed. Proteins, lipid droplets and glycogen particles were observed to increase gradually in quantity indicating a possible role of these cells in the synthesis of haemolymph proteins of the subject insect.