HISTOLOGICAL STUDIES OF OOSORTPION IN *PTINUS TECTUS* BOIELDIEU (COLEOPTERA: PTINIDAE)

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Oosorption involves histological and histochemical degradation of the tissues (Bell and Bohm 1975). The present study describes the histological changes of resorption of oöcyte of *Ptinus, tectus* Boieldieu in different stages of development.

P. tectus was reared in the laboratory. Paraffin sections were taken of the ovaries of *P. tectus* and stained to obtain comparable stages of oösorption.

During oösorption the follicular epithelium becomes many layered and subsequently these epithelial cells grow by cell division and elongate inwardly and invade the oöcyte. In the chorionated egg stage oösorption takes place by infoldings of the follicular epithelium. The chorion becomes thinner with the appearance of pore-like structures. It appears that the chorion is being dissolved gradually.

The oöcyte shows changes during oösorption. The margin becomes irregular; the nucleus is lost; the yolk is reduced with the development of vacuoles and the cytoplasm becomes crystalline and brittle. In sections the resorbing oöcyte shows various regions of different constituents indicating the mannar in which oösorption takes place.

Trypan blue stains the resorbing oöcytes of different stages of development. The permeability of trypan blue in the resorbing oöcyte is an indication of breakdown of the oöcyte membranes (Sams, 1975).

The acid phosphate was found to occur in the resorbing oöcytes. This is an indication of the activity of lysosome-like bodies within tne oöcyte during the catabolic process (Hopkins and King, 1964). It is suggested that the lysosome-like bodies (De Loof and De Wilde, 1970) or phagocytosing follicle cells (Lüsis, 1963) are responsible for breakdown of the yolk membranes during oösorption. Subsequently the yolk protein is released into the blood (Bell and Bohm, 1975).

As egg resorption takes place under adverse conditions, it is suggested that any method which induces the oöcyte to resorb is of some use for the control of insect pests.

References.

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