

There is a progressive increase in the volume of the corpus allatum of the adult male desert locust, *Schistocerca gregaria*, its cytoplasmic content, and the size of its nuclei which is correlated with progress towards sexual maturity. There are no cyclic changes in these characters comparable to those in the female insect, although they tend to decrease slightly as senescence approaches. A bioassay method, in which two corpora allata of known age were implanted into each newly emerged locust soon after it had been allatectomized, established that volume changes in the corpora allata reflect changes in the hormonal activity of the glands.