Acetophenone and veratrole have been identified as two major behaviourally active components of the oviposition aggregation pheromone of the desert locust, Schistocerca gregaria. These compounds were identified from the volatiles of egg pod froth using gas chromatography-electroantennographic (GC-EAD) and gas chromatography-mass spectrometric (GC-MS) analysis. Both compounds were shown to elicit aggregation of gravid females in oviposition bioassays; however, they do not act synergistically. Both acetophenone and veratrole individually at optimum doses induced about 70% egg laying, a value similar to that evoked with froth volatiles.