

A chemical signal, originating from the froth of egg pods attracts gravid female *Schistocerca gregaria* (Orthoptera: Acrididae) to common egg laying sites. Behavioural experiments indicated that females preferred to oviposit in moist sand contaminated with froth (60% egg laying vs 34% in sterilized sand). Extracts and volatiles collected from froth were also attractive to gravid females. In fact, froth volatiles elicited the strongest egg laying response (80% egg laying). Results with froth extracts obtained by sequential extraction with solvents of increasing polarity suggest that both non-polar and polar compounds are involved in the attraction of gravid females. Electroantennogram recordings with extracts and volatiles collected from froth confirmed the presence of olfactory receptors on the antennae that are responsive to compounds in the extracts and the volatile collections.