

Different blends of five chromatographically prominent components of the pheromone emission of gregarious-phase mature desert locust *Schistocerca gregaria* (Forskål) (Orthoptera: Acrididae) males were bioassayed for their maturation-accelerating effects on immature counterparts. The blend of all five components, namely anisole, veratrole, benzaldehyde, phenylacetonitrile and 4-vinylveratrole was as effective as the emission from live mature males in accelerating the onset of mating in immature males. Subtraction of anisole had no significant effect but removal of any one of the other four components significantly reduced the acceleration potency of the resulting blends. The maximum reduction occurred in the absence of phenylacetonitrile which appears to be critical to the activity of the blend. The magnitude of reduction in maturation acceleration that resulted from the subtraction of the other three components suggests that, although present in lesser relative amounts, these compounds contribute significantly to the activity of the full blend. Some differences were found between the onset of integumental yellowing and mating which indicate that blends of slightly different compositions are involved in promoting these two physiological processes.