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New world screwworm synthetic sex stimulant

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The presence of a sex pheromone in (New World Screwworm) females was demonstrated some time ago, but no natural compounds were isolated for proof of activity, and no synthetic compounds were ever tested. We report biological activity as powerful aphrodisiacs for synthetics in declining order of compounds 1, 4, 3, 2 and 5. Two types of bioassays were conducted to compare the stimulatory activity of these compounds against mature virgin males. Four compounds were the acetates of secondary alcohols with 29 carbon backbones, each with a variably-positioned methyl branch near the opposite end of the chain and one was a similar ketone. These acetoxy compounds, two aldehydes and a ketone were the major components of laboratory (and wild) females. Dose response relationships suggested complete copulatory activity with 5 ug of the most active, compound 1.

Species 1: Diptera Chrysomya *Cochliamyia hominivorax* (New World Screwworm)

Keywords: sex pheromone, aphrodisiacs