USING ODOURS TO ATTRACT HOUSE FLIES *MUSCA DOMESTICA* (L.) (DIPTERA: MUSCIDAE)

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House flies *Musca domestica* (L.) are a nuisance to humans and animals and are potential vectors of pathogens. One of the methods to control flies is using attractive odours to lure them to a trap (Cossé and Baker, 1996). However, existing commercially available baits showed variable results (Browne, 1990).

Several natural products, such as manure, tainted meat, fruits, and soaked bread, were tested for their attractivity for house flies in a flight chamber. Air (approx. 0.7 m/s) was led through two glass cylinders (i.d. 3.5 cm) positioned in plastic tubes (i.d. 8 cm) at the upwind end of the chamber. An odour source was placed in one of the cylinders (behind a piece of gauze to prevent flies from contacting it). The other tube contained an empty cylinder. During 20 minutes the number of landings in both tubes was noted.

The flies, males and females, had either been deprived of food during approximately 24 hours prior to the experiment ("food-deprived") or had been offered food until the beginning of the test ("well-fed"). The age of the flies ranged from 0 -2 days (young) to 3 -10 days (mature).

The average number of landings in response to an odour increased when the flies had been deprived of food during one day. Tainted meat (pork and chicken) and chicken manure were found to be the most attractive, whether the flies were young or mature, well-fed or food-deprived. Food-deprived flies were also attracted to odours of fruits (except lemon) and of yeast-containing products. Soaked bread attracted only males, whereas yeast, marmite, chicken meat, and especially chicken manure were more attractive to females than to males.

GC-EAG techniques will be used to identify electrophysiologically and behaviourally active chemicals present in the attractive products. The possibility to use these chemicals as bait in light traps, which can be used in restaurants, kitchens, shops, stables, and food factories, will be examined.

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