Potential Use of Synthetic and Natural Aromatic Mixtures in Prevention from Cockroaches of Shelfordella lateralis Genus

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The aim of our study was to find out how natural essential oils, medicinal plants, cosmetic fragrances, food flavors, smoke liquids, and fishing lures affected the motor activity of Shelfordella lateralis cockroaches. This cockroach species is known to be a carrier of pathogens of infectious diseases and helminths. In fact, the study aims to find alternatives to toxic insecticides that have a lower impact on human health and the environment. According to the study's findings, 58 aromatic mixtures were divided into 17 repellent, 7 attractive, and 34 indifferent. Cockroaches are attracted by the essential oils Citrus reticulata and Mentha piperita, as well as the cosmetic fragrance "Lilac" and the food flavor "Biscuit." They attracted 60–70% of insects from a half-meter distance. These substances can be used as bait for traps and poisons, as well as pheromone traps, in everyday life. The essential oils of Eucalyptus globulus and Calendula officinalis, as well as the cosmetic fragrance "Verbena" and the food flavor "Barberry," are the most promising repellent mixtures. At a distance of up to 40 cm, these substances scared away 80 percent of imago. Repellents can be used to protect industrial buildings from cockroaches.

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