

EVALUATION OF THE NEW SUPPRESSION SYSTEM EKOMILLE CO₂® FOR ANIMAL FRIENDLY RODENT MANAGEMENT

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Abstract Rodentia is the biggest family in the order of Mammalia, with over 40% of the species. The populations of a relatively few species that live in close association with humans sometimes cause economic damage or become threats to the health of humans or domestic animals. A few species of rodents are strictly associated to humans, and they are the cause of serious direct and indirect damage, by consuming or fouling stored products, acting as disease vectors or destroying infrastructure. In this context, rodent management is essential to preserve human safety. Starting from the 1950s up to the present day, chemical rodenticides have been the system most used to control mouse and rat populations, especially in outdoor environments. In internal areas, especially during the last few years, trapping systems have found more application. The trapping systems available on the market like glue traps, or snap traps, do not guarantee a humane suppression for trapped rodents, however other types like electronic traps or carbon dioxide single catch traps ensure a humane death but can make only a single catch. In this work the results are reported of the trials of a new suppression system Ekomille CO₂®. The test was done to evaluate for each bottle, the capacity of the carbon dioxide to suppress 10 rats in a humane way (Black Rat, *Rattus rattus* and Brown Rat, *Rattus norvegicus*) inside the Ekomille®.

Key words Rodent pests, rodent management, carbon dioxide, humane suppression, animal