

BURROW TREATMENT WITH BIOCIDES BAITING IN URBAN GREEN AREAS OF BARCELONA

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Abstract The Public Health Agency of Barcelona (ASPB Catalan acronym) is in charge of the surveillance and control of pests, such as some rodents, in public green areas and sewage system of the City. In the context of recent legal restrictions on the use of rodenticides, the control in green surfaces through the unique employment of rodent bait stations has been insufficient to solve several problems linked to murids (*Rattus norvegicus* and *Mus musculus*) proliferation in urban environments. A specific petition was made to the Spanish Ministry responsible of biocides registrations to enable the use of rodenticide directly in burrows in green spaces of the City (tree pits, borders, etc.). The selected product was Lok Difenacoum Bloque ®, a rodenticide bait in block form with Difenacoum (0,005%) as active matter. After the positive response, a specific protocol was designed and implemented to maximize the security of the application technique for citizens and pets that frequent the affected areas: rodenticide was introduced 25cm (minimum) into the burrows from the ground surface and covered with soil, each site was checked twice a week until activity finished. This method was held during three and a half months in 2015 and eight months during 2016 in all the public green spaces in Barcelona where burrows were found. More than three hundred plans were carried out to control rodent infestations in parks, green spaces and tree pits, sometimes including just one burrow, and others even exceeding fifty burrows. The method proved to be more efficient and reduced the necessary control period compared to the use of bait stations, being small infestations the quickest to resolve. The use of bait stations comprises issues such as rats' rejection, vandalism or use viability (for example, it is not possible to use in tree pits) that hinder its success. Treating the burrows directly with rodenticide involves less time of exposure to biocides and less time of uncontrolled rat populations, thus it appears to be a more effective and safer method.