

## **EVALUATION OF PHYSICAL STABILITY OF BROMADIOLONE RODENTICIDE IN GRANULATE AND PARAFFINE BLOCK FORMULATIONS**

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**INTRODUCTION** - Chemical control of rodent populations in São Paulo is currently done with the use of hydroxycoumarin rodenticides in bait formulations, granulated contact powder or paraffin block. These compounds are applied on open air and left under the action of the weather, which can cause changes in the formulations of the rodenticides. The aim of this study was to evaluate the physical stability of these formulations to minimize possible environmental contamination. Among the compounds hydroxycoumarin we chose to analyze the bromadiolone bait formulated as granules (pellets) and paraffin block. The products studied were placed in experimental systems, located in external and internal area of the Biological Institute. For lack of official analytical procedure for cleaning products, the methodology used for determination of dust content in granulated bait (pellets) was the Brazilian Association of Technical Standards, specifically for agriculture. **MATERIAL AND METHODS** - For the formulation pellets were mounted in 30 laboratory systems, subject to variations in temperature and daylight. Inside each bottle was placed the product for 10 weeks and subsequently evaluated in triplicate the content of dust through an open sieve. For the paraffin block, 30 blocks were placed in mini-lysimeters mounted on the outer area, at the facilities of the Biological Institute. In each mini-lysimeter was set a paraffin block fixed with a galvanized wire, to the screen coverage for a period of 10 weeks, when the physical resistance of the blocks, subject to weather conditions, was assessed. **RESULTS** - The results showed that for the bromadiolone formulated as pellets, the dust content was below the limit determined by this methodology bromadiolone, 0.16% m/m to the maximum limit determined by ABNT NBR-13 828 (4% m/m). The paraffin blocks mounted on the mini-lysimeters were released from the wire fixation after the second week of exposure. **CONCLUSION** - According to the results, it is presumed that during the application of the commercial product formulated as pellets there will be no formation of fog, which could compromise the health of the worker who operates in rodent control, and that his ability to attract the body- target was maintained. The physical evaluation of the paraffin blocks, located on the systems in place, revealed that the commercial product showed lower resistance, possibly due to high temperatures, making it difficult to work in the field, because when checking product consumption by rodent is difficult to establish whether it was consumed or released spontaneously from the wire. Moreover, the blocks are detached from the wire coming into direct contact with water, damaging the access of rodents and can lead to contamination of the environment.