

STUDY OF THE PHYSICAL STABILITY OF MALATHION SPRAY IN VEGETAL OIL USED IN THE
CONTROL OF DENGUE

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INTRODUCTION - Dengue is a major public health problem worldwide. In Brazil, social and environmental conditions are favorable to the expansion of the *Aedes aegypti* mosquito that transmits this disease, allowing the dispersal of this vector. The development of permanent programs, the development of information campaigns and mobilization of people and the strengthening of epidemiological and entomological methods to expand the capacity of prediction and early detection of outbreaks of disease are some of the strategies adopted by the Ministry of Health in dengue control. In Sao Paulo, and also as strategy adopted by the Ministry of Health, the combat is performed by blocks of containers with temephos and fogging with insecticide malathion diluted in vegetable oil and cold-applied ultra low volume. This study aimed to evaluate the physical and chemical stability of malathion spray of vegetable oil used in the control of dengue.

MATERIAL AND METHODS - The spray liquid is prepared with 1 liter of malathion (98%) in 2 liters of soybean oil second orientation of the Superintendency of Endemic Disease Control (SUCEN) of the Health Secretariat of São Paulo. After preparation, the solution was maintained for 4 weeks outdoor in the yards of the Biological Institute, and exposed to weather conditions on course in order to simulate the conditions of storage and field use. The stability of the solution was evaluated for pH, density and uniformity, according to the methodology of the Brazilian Association of Technical Standards (ABNT). The evaluations were always on pre-defined time intervals during four weeks taken from the initial preparation of the syrup until the end of the study.

RESULTS - During the study period and under the storage conditions described, spray insecticide showed the following characteristics: pH = 5.0, density without significant variations, homogeneous, without formation of lumps and phase separation.

CONCLUSION - The experimental data can provide information to the proper re-use of the solution of malathion in vegetable oil, provided the storage conditions and followed the provisions given by the state and municipal legislation, enabling reductions in cost and quantity of waste to be disposed of and minimizing the risk of environmental contamination.