



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
Blue Nile State
Ministry of Health
Director General Office



Report

Title:

Field trial using Sunlight activated Formulated Extract (SAFE) to target and control Mosquito larvae (The Vector of malaria and filarial diseases); Novel Egyptian Technology for mosquito control.

Trial Investigators:

INRAD Team: Ass. Prof. Dr. Walid Ali Abdel Aziz (INRAD General Director)

Ass. Prof. Dr. Tarek Abd Allah El-Tayeb (Scientific consultant)

Sudan Team: Prof. Dr. Ali Mohamed Edris (Minister of Health, Blue Nile State)

Dr. Ali Sayed AlHasan (DG SMOH, Blue Nile State)

Mr. Nezar Header (Malaria Control program Blue Nile State)

Ms. Maha Abdagaffar (Malaria Control program Blue Nile State)

Field Trial description:

In a real mosquito infected field in Blue Nile State, three regions were chosen by Mr. Nezar. Two regions for treatment with two different SAFE concentrations and one region for control (i.e. left without treatment). The SAFE material was added at 7:00 PM and the results were collected at 10:00 AM and 2:00 PM after SAFE application.

Results: At 10:00 AM the mortality % of *Anopheles* and *Culex* larvae were 90 % and 100% respectively in the first pond and 75% and 100% respectively in the second pond. The control pond kept 100 % survival of both mosquito larvae species. At 2:00 PM the mortality % of *Anopheles* and *Culex* larvae were 100 % and 100% respectively in the first pond and 90 % and 100% respectively in the second pond. The control pond kept 100 % survival of both mosquito larvae species.

Important Note: All organisms in the treatment pond were still living except the *Anopheles* and *Culex* larvae which prove the target selectivity of SAFE material.

Conclusion:

The safe material and its mode of action introduce novel safe technology for mosquito larvae control. The properties of this material as it is natural extract and targeted for the mosquito larvae within a fauna of different bio-organisms reflect the high extent of environmental safety using SAFE material in addition to high efficiency of mosquito control.

Recommendation: According to the results of the field trial and the properties of the SAFE material we recommend the application of this technology to control mosquito larvae in Blue Nile State.

