1977). Light traps have the advantage of collecting both male and female mosquitoes as well as those phototactic species such as *Ficalbia chamberlaini clavipalpus* which are not attracted to bovid bait.

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THE USE OF INSOLUBLE FOAM IN MOSQUITO CONTROL

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The ineffectiveness of larvicidal oils and chemical insecticides in controlling *Culex quinquefasciatus* Say (= *fatigans* Wiedemann) and other polluted water breeders (Graham & Gratz 1975) has stimulated the devising of a noval technique to overcome this important problem.

Our procedure consists in the application of a 'blanket' of carbon dioxide, entrained as a foam by a water-insoluble surfactant stabilizer. The foam is produced by using a soda-water type apparatus or, on a larger scale, a carbon dioxide type fire extinguisher. The foaming solution is a fine dispersion of kerosene solution of surfactant (30%w/v) in water (1:600) generated at an expansion of approximately 2, so that one liter of foam, sufficient to cover 1 m^2 of surface, is produced from 1 gm stabilizer. Such a foam, about 1 cm thick, gradually breaks down to a single-bubble layer after about 2–3 days, during which it is 100% lethal to mosquito juveniles. After this period bubble-free patches appear but, for unknown reasons, even this 'patchwork' surface remains lethal for some time afterwards. It remains deterrent to the mosquito for long periods subsequently. These periods can be extended roughly in proportion to the concentration or thickness of the foam applied. Thus at 3g/sq.m. control is 100% over 12 days or so (determined by the addition of fresh larvae and pupae at intervals).

The foam is environmentally innocuous since the kerosene solvent evaporates reasonably quickly at 27°C, leaving a biodegradable surfactant which is, in itself, non-toxic and non-injurious to the environment. It is sufficiently tenacious to resist the effect of light winds and rain (it will in fact survive quite heavy rainfall since the stabilizer is water-insoluble) and would appear to be the most effective way of covering polluted surfaces, short of adding excessive quantities of bulk oil which gives rise to severe problems of oil pollution.

Field trials are planned in Africa during 1977 and laboratory tests are proceeding on various formulations, including the effect of the solvent. This study is part of a programme of research on monolayer control of mosquito financed by the Medical Research Council. (McMullen 1972).

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