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REPORT OF THE FIFTH
WHOPES WORKING GROUP MEETING

WHO/HQ, GENEVA
30-31 OCTOBER 2001

Review of:
OLYSET NET
BIFENTHRIN 10% WP

WORLD HEALTH ORGANIZATION
COMMUNICABLE DISEASE CONTROL,
PREVENTION AND ERADICATION
WHO PESTICIDE EVALUATION SCHEME

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1. INTRODUCTION

The fifth WHOPES Working Group Meeting, an advisory group to the WHO Pesticide Evaluation Scheme (WHOPES), was convened at WHO Headquarters, Geneva, 30-31 October 2001. The objective of the meeting was to review the reports of the testing and evaluation of Olyset Net® (Sumitomo Chemical Co., Ltd, Japan) and bifenthrin 10% Wettable Powder (FMC, USA), for malaria vector control.

The meeting was opened by Dr M. Neira, Director, Communicable Disease Control, Prevention and Eradication. In her opening remarks she referred to vector control being an essential component of vector-borne disease control, especially in view of increasing drug resistance and the absence of vaccines. She stated that vector control is part of the preventive measures to reduce or interrupt transmission and plays an essential role in epidemic prevention and containment.

Dr Neira noted the importance of chemical control in the integrated approach to vector control and therefore the essential role of WHOPES in supporting the technical requirements of the vector-borne disease control programmes at WHO and country level, notably the Roll Back Malaria (RBM) partnership. Dr Neira referred to the recent WHO meeting with Regional Advisors for the development of a global strategic framework for vector control and expressed the hope that it would lead to the strengthening of WHO's activities in this field.

Dr L. Savioli, Coordinator, Strategy Development and Monitoring for Parasitic Diseases and Vector Control, also noted the need for increasing guidance and support to national vector-borne disease control programmes.

He also referred to the recent WHO initiative in support of dengue prevention and control among the Member States, as well as activities in support of the global elimination of lymphatic filariasis and the potential role of vector control.

Dr Morteza Zaim, Scientist in charge of WHOPES, presented the objectives and an overview of the scheme to the participants, and noted that the recommendations of WHOPES on the use of pesticides in public health are to expedite the registration of such products by the Member States. He also indicated that the reports of the WHOPES Working Group Meetings are well received by national registration authorities and control programmes, as an excellent source of information and consolidation of available information on pesticides evaluated by WHOPES and that every effort will be made to make the reports more useful and widely distributed.

Dr Zaim also briefed the participants on the memorandum of understanding which has been signed between WHO and FAO in 2001, by which the two organizations have agreed to cooperate in a joint programme to develop specifications for pesticides. This unified procedure will enhance the development of high-quality standards for pesticides; their acceptability by governments, industry and traders, and make the development of such specifications more efficient and cost-effective to industry, to WHO and FAO. He noted that the procedure for the establishment of WHO specifications has, therefore, been revised and harmonized with the new procedure of FAO, which started in 1999, as described in the "Manual on the Development and Use of FAO Specifications for Plant Protection Products, fifth edition", published as FAO Plant Production and Protection Paper 149, available at http://www.fao.org/waicent/faoinfo/agricult/agp/agpp/pesticid/. Dr Zaim also noted that the first Manual on Development and Use of FAO and WHO Specifications

for Pesticides is expected to become available in mid-2002. Under the "new" procedure the specifications do not necessarily apply to nominally similar products of other manufacturers, nor to those where the active ingredient is produced by other methods of synthesis. The scope of these new WHO specifications may be extended to apply to similar products when WHO has been satisfied that the additional products are equivalent to those which formed the basis of the reference specification.

The meeting was attended by 10 scientists (see list of participants, Annex 2). Dr B. Sharp was appointed as Chairman and Dr I. Vythilingam as Rapporteur. The meeting was convened in plenary sessions at WHO/HQ in Geneva, 30-31 October 2001, and the reports of the WHOPES supervised trials and relevant published literature, as well as the reports submitted by national disease and vector control programmes (see bibliography, Annex 1) were reviewed and discussed. Recommendations on the use of the above-mentioned products were made.

2. REVIEW OF OLYSET NET

2.1 Specifications

Olyset Net is a long lasting insecticide-treated mosquito net and does not require re-treatment after washing. The net material is 100% high-density polyethylene, blended with permethrin 2% (w/w) as active ingredient, corresponding to about 1000 mg of active ingredient/m^2. The insecticide moves through the threads of the net by diffusion.

Olyset Net is made of wide mesh (4mm x 4mm). The product has the following additional specifications:

Fiber thickness	>150 denier
Weave type	Raschel
Weight	50 g/m^2
Melting point	About 130 °C
Flashing point	341 °C
Ignition point	349 °C

2.2 Efficacy – background/supporting documents

Cambodia - Efficacy of Olyset Nets for malaria vector control was studied in comparison to the use of untreated mosquito nets by the National Malaria Centre, Phnom Penh (Chheang and Sandy, 1994). A block consisting of two hamlets (183 families) received Olyset Nets, where as a second block of three hamlets (208 families) received 500 untreated nets. *Anopheles dirus* and *An. minimus* were the main malaria vectors.

The entomological data recorded before and after the intervention indicated decrease of more than 70% of