



WORLD HEALTH ORGANIZATION
ORGANISATION MONDIALE DE LA SANTE

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WHO/MAL/95.1073
WHO/CTD/VBC/95.998

SUPPLIES FOR MONITORING INSECTICIDE RESISTANCE IN DISEASE VECTORS

Procedures and conditions

Attachments

<i>WHO.USM/95.1 (proc)</i>	Procedures and conditions for supply of test kits
<i>WHO.USM/95.2 (req)</i>	Sample of form: copies to be used when requesting any item(s)
<i>WHO.USM/95.3 (req)</i>	Sample of form: copies to be used to order insecticide Impregnated papers and other material for testing adult mosquitos (extract from page 4, catalogue WHO/VBC/81.829/Rev.2)
<i>WHO/VBC/81.829/Rev.2</i>	Catalogue to be referred to for ordering material to test mosquito larvae, other disease vectors and pests
<i>WHO/VBC/1/88</i>	Sample of form: copies to be used to record and send test results to WHO

Note: subject to modifications.

November 1995

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Subject: Supplies for monitoring insecticide resistance in disease vectors

Dear Colleague,

... Please see the attached document WHO/MAL/95.1073 - WHO/CTD/VBC/95.998 on Procedures and conditions for supply of material for monitoring insecticide resistance. This was prepared: a) based on the experience in processing the requests and despatches of test material during a two-year WHO/USM (Universiti Sains Malaysia, Penang, Malaysia) preliminary/probationary/contractual period (ended April 1995); and b) having taking into consideration the comments and suggestions on a preliminary draft, by relevant staff at WHO Headquarters, Regional Offices and USM. The document (as stated) is subject to modifications.

Copies of the following are also attached to facilitate the processing of requests/despaches and reporting on test results:


- catalogue WHO/VBC/81.829/Rev.2; to be updated, to accommodate new insecticides/material, with revised prices including the pricing in US\$ (instead of Swiss Francs);
- sample of form WHO/VBC/1/88 in use for recording test results.

We would appreciate if the procedures recommended are adhered to in procuring these supplies in future.

It is also advisable that the communications with USM concerning these procurements are made in English to avoid these being referred by USM to WHO Headquarters for translation to English; and thereby delays in processing of dispatches from USM.

Yours sincerely,

Signed:


Dr P.R.J. Herath
Scientist, Malaria Control Unit
Division of Control of Tropical Diseases
World Health Organization
20, av. Appia
CH-1211 Geneva 27 - Switzerland

Date: February 1996

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World Health Organization
Division of Control of Tropical Diseases
Malaria Unit

INSECTICIDE RESISTANCE MONITORING IN DISEASE VECTORS Procedures and conditions for supply of test kits

Test kits will be supplied/despatched from the Universiti Sains Malaysia (USM), Penang, Malaysia, a WHO Collaborating Centre.

1. Requests

Requests should be made directly to the Coordinator, Vector Control Research Unit, School of Biological Sciences, Universiti Sains Malaysia (Attn: **Professor Yap Han Heng**, Tel: 60-4-657.47.76; Fax: 60-4-657.72.00; Telex: MA 40254), with copies to Malaria Control Unit (Attn: Dr P.R.J. Herath), Division of Control of Tropical Diseases, World Health Organization, 1211 Geneva 27, Switzerland, the latter for information, and to facilitate follow up where necessary.

Requests, where the costs of items are to be met through WHO allotments, must be sent through the relevant WHO country Representatives (WR's), or WHO Regional Offices or the respective units at WHO Headquarters.

All requests must be accompanied by a copy of form WHO.USM/95.2 (req) in which all relevant information should be filled to avoid unnecessary delays in responding to requests.

Insecticide impregnated papers and adult mosquito testing material (most in demand) should be requested in form WHO.USM/95.3 (req), which is based on information extracted from page 4, catalogue WHO/VBC/81.829/Rev.2.

Material for testing *mosquito larvae, other disease vectors, and pests* may be requested on format similar to WHO/USM/95.3, using information in **Catalogue WHO/VBC/81.829/Rev.2**.

To assist USM, WHO collaborating centre in its operations, and to avoid last minute responses and unnecessary follow-up, it would be appreciated if the supply requirements are planned and requested sufficiently in advance, the necessary forms properly filled and procedures specified followed.

2. Proforma invoice

On receipt of requests, USM will send proforma invoices covering the cost of items plus freight and insurance.

3. Despatches and notification

Items requested will be **despatched only on receipt of payments to the USM Bank account** specified under 5.

Despatches in response to requests received through WHO (Country Representatives, Regional Offices or Headquarters where the costs are to be met through WHO allotments) will however be made **without waiting for payments**, provided the sticker number is indicated.

USM will notify the relevant despatches (through Form WHO.USM/95.5) to the recipient indicated under 5 in Form WHO/USM/95.2 (req), with copies to: a) those requesting and are responsible for payments (see 4 in WHO.USM/95.2 (req) if different from those in 5), and/or b) to relevant WHO Regional Offices and WHO country Representatives for orders sent through or paid for through WHO.

4. Costing

All materials will be charged according to the prices given in Catalogue WHO/VBC/81.829/Rev.2, and in form WHO/USM/95.3 (which is extracted from the catalogue WHO/VBC/81.829/Rev.2).

The cost of **transport** (freight and insurance) depends on the items, destination and mode of transport requested under item 8, WHO.USM/95.2 (req).

As only the items sent by **airfreight** are insured, it is advisable that items which are relatively expensive, or in bulk needing despatch of a number of packages be sent by airfreight.

Costing of items will remain in Swiss francs as at present and indicated in Catalogue WHO/VBC/81.829/Rev.2 and Form WHO/USM/95.3 (req); and subject to change with revision of costs.

5. Payments

All payments will be made to the "revolving fund" established at the Universiti Sains Malaysia, Penang, Malaysia, for this purpose.

Payments must be made:

- preferably by **cheque or bank draft** to Professor Yap Han Heng, Vector Control, Research Unit, Universiti Sains Malaysia, Penang, Malaysia, and made **payable to "BURSAR, Universiti SAINS MALAYSIA"**.
- When payment has to be made by bank transfer, this must be made to "BURSAR, Universiti SAINS MALAYSIA" (Account No: BBMB 0180 400277). **Payment through bank transfer must specify that the payment is being made to the Vector Control Research Unit, School of Biological Sciences, Universiti Sains Malaysia, 11800 Minden, Penang, Malaysia, to ensure receipt of the payment to the proper account.**
- Payments should be made preferably in US\$, taking into account the US\$/Swiss franc exchange rates at the time of payment.

5.1 All despatches (except on WHO Allotments)

These payments will be made direct to USM, i.e. **prior to despatch of the items.**

With all payments, the WHO.VCRU reference number must be specified, and a copy of the advice statement sent to Professor Yap Han Heng, Vector Control Research Unit, Universiti Sains Malaysia, in order to facilitate identification of the source of funding.

5.2 WHO allotments

USM will send quarterly statements on the payments pending, using the form WHO.USM/95.7a (sum), along with the relevant Proforma Invoices, to the WHO Regional Offices, WHO country representatives (WRs), or relevant units of the WHO Headquarters, which made the request/through which the requests were made; and will be responsible for payments to the USM Bank account. The statement will specify, the WHO.VCRU reference numbers, the consignees (names, addresses), dates when the requests were received at USM, dates of despatch, amounts, allotment numbers, sticker numbers, etc. Copies of advice statements on transfer of funds to USM Bank Account, should be sent to USM (Professor Yap Han Heng) for information. This should indicate the WHO.VCRU reference number.

In addition, USM will send Malaria Unit, Division of Control of Tropical Diseases (CTD/MAL), WHO Headquarters (responsible officer - Dr P.R.J. Herath), 6-monthly statements on the payments received, and pending for despatches on WHO allotments (for information).

6. Progress statements

USM will send WHO (CTD/MAL): a) a quarterly statement on requests received, despatches made, payments expected, b) 6-monthly statements on all payments received, i.e. with and without WHO allotments, and c) 6-monthly summary on the budgetary situation under the operational and the revolving funds.

7. Test results

Results of all insecticide susceptibility tests are to be made available (as soon as the tests are carried out) to the respective WHO Regional Offices, and WHO Headquarters, Malaria Control Unit (at the address indicated below), using at present the form WHO/VBC/1/88. This will enable analysis and use of data at regional/global levels for practical purposes (facilitate guidance on insecticide use for disease vector control).

Dr P. R. J. Herath
Scientist
Malaria Control Unit
Division of Control of Tropical Diseases
World Health Organization
1211 Geneva 27
Switzerland

Tel: (+41 22) 791 3746/3839 (direct)
(+41 22) 791 21 11
Fax: (+41 22) 791 0746 / (+41 22) 791 4777
Telex: 415416
e-mail: herath@who.ch

Malaria Unit
Division of Control of Tropical Diseases
World Health Organization
20, Avenue Appia
CH-1211 Geneva 27 - Switzerland

SUPPLIES FOR INSECTICIDE RESISTANCE MONITORING
Requisition form

1. Requester's reference _____ 2. WHO/VCRU reference _____
to be filled by USM

Date of request _____ Date received _____

3. Country _____ WHO Region _____

4. Requested by and responsible for payments:

Name _____

Address _____

(Please include street name, city, zipcode and country)

Fax No. _____ Tel. No. _____ Telex _____

5. Supplies to be sent to:

Name _____

Address _____

(Please include street name, city, zipcode and country)

Fax No. _____ Tel. No. _____ Telex _____

Name of nearest airport _____

6. Invoice to be sent to:

Name _____

Address _____

(Please include street name, city, zipcode and country)

Fax No. _____ Tel. No. _____ Telex _____

7. For WHO requisitions only:

Allotment No. _____ Sticker/Obligation No. _____

8. Items to be dispatched by (please tick):

a) Air mail* _____ b) Air freight _____ c) Others _____

* Please note that air mail despatches will not be insured. In case of no indication on mode of despatch, goods will be automatically airfreighted.

Your ref: _____
WHO/VCRU ref: _____
to be filled by USM

WHO.USM/95.3 (req)

	Item	Cost per unit (Swiss Francs)†	Quantity requested	Total cost (US\$)
A. Insecticide impregnated papers (boxes) - each box with 8 papers				
1.	DDT	4.0%	20.00	
2.	Dieldrin	0.4%	20.00	
3.	Control in risella oil		20.00	
4.	Malathion	5.0%	30.00	
5.	Fenitrothion	1.0%	30.00	
6.	Propoxur	0.1%	30.00	
7.	Bendiocarb	0.1%	30.00	
8.	Control in olive oil		30.00	
9.	Permethrin	0.25%	30.00	
10.	Deltamethrin	0.025%	30.00	
11.	Lambdacyhalothrin	0.1%	30.00	
12.	Control in silicone oil		30.00	
B. Other items				
13.	Adult mosquito (diagnostic) test kit (WHO/VBC/81.806)		70.00	
14.*	Aspirators (straight)		5.00	
15.*	Aspirators (bent)		9.00	
16.	Bioassay cones (conical chamber)		1.00	
17.	Bioassay kit (VBC/81.5)		69.00	
18.*	Plastic tube (set)		13.00	
19.	Metal clip (copper)		0.70	
20.	Metal clip (silver)		0.70	
TOTAL COST OF ITEMS				

- * Notes: 14. 1 straight plastic tube, 1 plastic tubing, 1 mouthpiece.
15. 1 bent glass tube, 1 rubber tubing, 1 mouthpiece.
18. Plastic tubes comprising: 1 tube with red dot (exposure), 1 tube with green dot (holding), 1 slide.

† Cost subject to change without notice. Extracted from WHO/VBC/81.829/Rev.2 (page 4)



WHO/MAL/95.1073
 WHO/CTD/VBC/95.998

CATALOGUE OF TEST KIT MATERIALS FOR DETERMINING
 THE SUSCEPTIBILITY OF VECTORS TO PESTICIDES

PRICE LIST NO. 3 (MARCH 1990)

IMPORTANT

Note 1. WHO Regional Offices and projects should order materials on form WHO 5397. Orders by telex or memorandum can only be accepted under exceptional circumstances.

Note 2. Equipment and/or insecticides may be ordered separately. Dichlorvos, other persistent fumigants and rodent kits are, however, only issued complete. The order should specify the concentrations and the number of boxes, or sets of boxes, solutions or sets of solutions. The prices shown in the list do not include the cost of shipping.

Note 3. Solutions containing volatile solvents are air freighted and in accordance with air transport regulations; the maximum volume of solvents allowed per parcel is 5 litres (i.e. 100 x 50 ml bottles). The minimum air freight charge to be expected is S. F. 155.00.

Note 4. All orders should include the price in Swiss Francs. Our invoice will be drawn up according to the official WHO rate of exchange for the current month of the dispatch.

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Price in S.F.

ADULT BED-BUGS WHO/VBC/81.809

Equipment as described in the instruction sheet 95.00

Insecticides per box

OC papers impregnated with: DDT 4%, dieldrin 0.8%	20.00
OC control papers	20.00
OP papers impregnated with: malathion 5%, fenitrothion 1%	30.00
OP control papers	30.00

On special request, with delivery time of at least two months, papers impregnated with: propoxur 0.8%, trichlorfon 1%, deltamethrin 0.025%, permethrin 0.25%, and pyrethroid control papers can be supplied for research purposes 30.00

ADULT BLACKFLIES, SANDFLIES AND BITING MIDGES WHO/VBC/81.810

Equipment as described in the instruction sheet 150.00

Insecticides per box

OC papers impregnated with:	
DDT 0.25%, 0.5%, 1%, 2%, 4%	20.00
dieldrin 0.05%, 0.1%, 0.2%, 0.4%, 0.8%, 1.6%	20.00
OC control papers	20.00

On special request
dieldrin 4% 20.00

BLACKFLY LARVAE WHO/VBC/81.811

Equipment as described in the instruction sheet 45.00

<u>Test Kit</u> including	1 complete set of solutions + control	71.50
	2 " " " "	98.00
	3 " " " "	124.50
	4 " " " "	151.00

(Maximum allowed per parcel : four)

Note: The alcohol used for these solutions and for the control has been denatured by the addition of 2% butanone

per 50ml bottle

DDT	625mg/1, 125mg/1, 25mg/1, 5mg/1, 1mg/1	
methoxychlor	625mg/1, 125mg/1, 25mg/1, 5mg/1, 1mg/1	
chlorpyrifos-methyl	312.5mg/1, 62.5mg/1, 12.5mg/1, 2.5mg/1	
pirimiphos-methyl	312.5mg/1, 62.5mg/1, 12.5mg/1, 2.5mg/1	
temephos	312.5mg/1, 62.5mg/1, 12.5mg/1, 2.5mg/1	4.50
Control alcohol only		4.00

VOLATILE SOLVENT. SEE NOTE 3 ON FRONT PAGE (AIR FREIGHT)

	<u>Price in S.F.</u>
<u>COCKROACHES</u> WHO/VBC/75.593	
<u>Equipment</u> as described in the instruction sheet	50.00
<u>Complete Test Kit</u> (including one bottle of each insecticide and control)	72.00
<u>Insecticide in acetone</u> (glass bottle 50 ml)	<u>per 50ml bottle</u>
dieldrin 0.5%, malathion 1.0%, diazinon 5%, propoxur 1.0%	4.50
Control acetone only	4.00
<u>VOLATILE SOLVENT. SEE NOTE 3 ON FRONT PAGE (AIR FREIGHT)</u>	

<u>DICHLORVOS AND OTHER PERSISTENT FUMIGANTS</u> WHO/VBC/75.594	
<u>Complete Test Kit</u> as described in the instruction sheet (including dichlorvos solution in butanone and control)	125.00
<u>VOLATILE SOLVENT. SEE NOTE 3 ON FRONT PAGE (AIR FREIGHT)</u>	

<u>FLEAS</u> WHO/VBC/81.815	
<u>Equipment</u> as described in the instruction sheet	150.00
<u>Insecticides</u>	<u>per box</u>
OC papers impregnated with: DDT 1%, dieldrin 0.2%	20.00
OC control papers	20.00
OP - carbamate papers impregnated with malathion 0.5%, fenitrothion 1%, propoxur 0.1%	30.00
OP - carbamate control papers	30.00
<u>On special request</u> , with delivery time of at least two months, papers impregnated with: trichlorfon 1% can be supplied for research purposes.	30.00

<u>HOUSEFLIES, TSETSE FLIES, STABLEFLIES, BLOWFLIES ETC.</u> WHO/VBC/81.813	
<u>Equipment</u> as described in the instruction sheet	75.00
<u>Test Kit</u>	
<u>Including complementary equipment &</u>	
1 insecticide + control	90.00
2 insecticides + control	105.00
3 insecticides + control	120.00
4 insecticides + control	135.00
5 insecticides + control	150.00
6 insecticides + control	165.00
7 insecticides + control	180.00
8 insecticides + control	195.00
9 insecticides + control	210.00
10 insecticides + control	225.00
The composition of the complementary equipment depends on the number of insecticides requested	
(Maximum allowed per kit: ten)	

<u>Insecticides in butanone (in glass bottle of 50 ml)</u>	<u>Price in S.F.</u> <u>per 50ml bottle</u>
DDT 4%, lindane 2%, malathion 8%, fenclorophos 2%, bromophos 2%, carbaryl 5%, diazinon 1%, dieldrin 1%, propoxur 16%, tetrachlorvinphos 2%, dichlorvos 0.5%, dimethoate 0.5%, fenthion 1%, endosulfan 1.5%	4.50
trichlorfon 5%, permethrin 0.5%, deltamethrin 0.05%	4.00
Control butanone only	

VOLATILE SOLVENT. SEE NOTE 3 ON FRONT PAGE (AIR FREIGHT)

BODY LICE AND HEAD LICE WHO/VBC/81.808

Equipment

Instruction sheet, log probability paper, report form, label 6.50

Insecticides

per box

OC papers impregnated with: DDT 4%, dieldrin 0.1%	20.00
OC control papers	20.00
OP papers impregnated with: Malathion 5%	30.00
OP control papers	30.00

On special request, with delivery time of at least two months, papers impregnated with: propoxur 0.8%, trichlorfon 1%, deltamethrin 0.025%, permethrin 0.25% and pyrethroid control papers can be supplied for research purposes 30.00

ADULT MOSQUITOS ESTABLISHMENT OF THE BASE-LINE WHO/VBC/81.805

Equipment as described in the instruction sheet 100.00

Insecticides

per box

OC papers impregnated with: DDT 0.25%, 0.5%, 1%, 2%, 4%	20.00
dieldrin 0.05%, 0.1%, 0.2%, 0.4%, 0.8%, 4%	20.00
OC control papers	20.00
OP - carbamate papers impregnated with: malathion 5%, fenitrothion 1%, propoxur 0.1%	30.00
OP - carbamate control papers	30.00

On special request, with delivery time of at least two months, papers impregnated with: bendiocarb 0.1%, deltamethrin 0.025%, permethrin 0.25% and pyrethroid control papers can be supplied for research purposes 30.00

Note: Pirimiphos-methyl impregnated papers have given variable results and should tests with this insecticide be necessary WHO can provide technical pirimiphos-methyl, filter papers and a method to prepare the impregnated papers locally:
 5 g of insecticide + boxes of 8 sheets filter papers 15.00

Price in S.F.

ADULT MOSQUITOS DIAGNOSTIC TEST WHO/VBC/81.806

<u>Equipment</u> as described in the instruction sheet	70.00
<u>Insecticides</u>	<u>per box</u>
OC papers impregnated with: DDT 4%, dieldrin 0.4%	20.00
OC control papers	20.00
OP - carbamate papers impregnated with: malathion 5%, fenitrothion 1%, propoxur 0.1%	30.00
OP - carbamate control papers	30.00
<u>On special request</u> , with delivery time of at least two months, papers impregnated with: bendiocarb 0.1%, deltamethrin 0.025%, permethrin 0.25% and pyrethroid control papers can be supplied for research purposes	30.00
<u>Note:</u> Pirimiphos-methyl impregnated papers have given variable results and should tests with this insecticide be necessary WHO can provide technical pirimiphos-methyl, filter paper and a method to prepare the impregnated papers locally: 5 g of insecticide + 2 boxes of 8 sheets filter papers	15.00

MOSQUITO LARVAE WHO/VBC/81.807

<u>Equipment</u> as described in the instruction sheet	55.00
<u>Test Kit</u>	
including equipment + 1 complete set of solutions + control	77.00
2 complete sets of solutions + control	99.00
3 complete sets of solutions + control	121.00
4 complete sets of solutions + control	143.00
(Maximum allowed per kit: four complete sets of solutions)	

Note: The alcohol used for these solutions and for the control has been denatured by the addition of 2% butanone

per 50 ml bottle

malathion	781.25mg/l, 156.25mg/l, 31.25mg/l, 6.25mg/l	
temephos	156.25mg/l, 31.25mg/l, 6.25mg/l, 1.25mg/l	
bromophos	31.25mg/l, 6.25mg/l, 1.25mg/l, 0.25mg/l	
fenitrothion	31.25mg/l, 6.25mg/l, 1.25mg/l, 0.25mg/l	
fenthion	31.25mg/l, 6.25mg/l, 1.25mg/l, 0.25mg/l	
chlorpyrifos	6.25mg/l, 1.25mg/l, 0.25mg/l, 0.05mg/l	4.50
Control alcohol only		4.00

VOLATILE SOLVENT: SEE NOTE 3 ON FRONT PAGE (AIR FREIGHT)

MOSQUITO LARVAE RESISTANCE TO INSECT DEVELOPMENT INHIBITORS WHO/VBC/81.812

<u>Equipment</u> as described in the instruction sheet	45.00
<u>Complete Test Kit</u> (including one complete set of each insecticide and control)	98.00

Price in S.F.

Note: The alcohol used for these solutions and for the control has been denatured by the addition of 2% butanone

	<u>per 50 ml bottle</u>
methoprene 20mg/l, 4mg/l, 0.8mg/l, 0.16mg/l, 0.032mg/l	
diflubenzuron 20mg/l, 4mg/l, 0.8mg/l, 0.16mg/l, 0.032mg/l	4.50
Control alcohol only	4.00

VOLATILE SOLVENT, SEE NOTE 3 ON FRONT PAGE (AIR FREIGHT)

REDUVID BUGS WHO/VBC/75.587

<u>Equipment</u> as described in the instruction sheet	65.00
<u>Insecticides</u>	<u>per box</u>
OC papers impregnated with: dieldrin 0.4%, 0.8%, 1.6%, 4%	20.00
OC control papers	20.00

RODENTS WHO/VBC/82.843

<u>Complete Test Kit</u> as described in the instruction sheet	98.00
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ADULT TICKS WHO/VBC/81.814

<u>Equipment</u> as described in the instruction sheet	120.00
<u>Test Kit</u>	
including complementary equipment & 1 solution + control	152.00
2 solutions + control	184.00
The composition of the complementary 3 solutions + control	216.00
equipment depends on the number of 4 solutions + control	248.00
insecticides requested.	

Insecticides in butanone (in glass bottle of 50ml)

	<u>per 50 ml bottle</u>
DDT 10%, dieldrin 5%	
malathion 10%, fenthion 5%	4.50
Control butanone only	4.00

VOLATILE SOLVENT. SEE NOTE 3 ON FRONT PAGE (AIR FREIGHT)

TEST KIT FOR BIOASSAYS ON WALL SURFACES VBC/81.5

<u>Equipment</u> as described in the instruction sheet	69.00
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Price in S.F.

SPARE EQUIPMENT

per unit

- <u>Plastic tubes comprising: 1 tube with a red dot (exposure), 1 tube with a green dot (holding) and 1 slide</u>	13.00
- <u>Aspirator for bioassay comprising: 1 bent glass tube, 1 rubber tubing, 1 mouthpiece</u>	9.00
- <u>Conical chamber</u>	1.00
- <u>Metal clips either steel or copper</u>	0.70
- <u>Aspirator for adult collection comprising: 1 straight plastic tube, 1 plastic tubing, 1 mouthpiece</u>	5.00

RESPONSE OF ADULT OR NYMPHAL STAGES OF VECTORS/RESERVOIRS TO DISCRIMINATING DOSAGES OF PESTICIDES

COUNTRY:		REGION:				INVESTIGATOR(S):			
District									
Locality or Village									
Geographical N/S									
Coordinates E/W									
Date last sprayed									
Resting site/surface									
Species tested									
Source of sample									
Sex (5 physiological stage)									
Adult/Instar									
DATE and TIME of test									
Test method: WHO/other									
Exposure method		Top./Imp.P.	Top./Imp.P.	Top./Imp.P.	Top./Imp.P.	Top./Imp.P.	Top./Imp.P.	Top./Imp.P.	Top./Imp.P.
Papers impregnated by									
Date impregnated									
Date removed from pack									
Times paper previously used									
Pesticide tested									
Dosage/Concentration used									
Exposure period									
Temperature									
Exposure period									
range (°C)									
Holding period									
R. humidity									
Exposure period									
range (%)									
Holding period									
Test group		Control	Exper.	Control	Exper.	Control	Exper.	Control	Exper.
Number of replicates									
Total number exposed									
Number knocked down									
Number dead									
% mortality (observed)		0		0		0		0	
% mortality (corrected)		0		0		0		0	

Please fill in the history of pesticide use on the reverse side of this page, for the whole district.

PLEASE DO NOT WRITE IN THE SPACE BELOW

Interpretation	
Verified by	
Entered by	
Record number	
WHO/VBC/1/88	

HISTORY OF PESTICIDE USE *

Region: _____ Province: _____ District: _____

(A) In Public Health: 1. Adulticides:

Pesticide	DPT	BHC	Dieldrin	Malathion	Propoxur	Permethrin	Permethrin											
Year introduced																		
Formulation																		
Dosage																		
Frequency																		
Year terminated																		
TOTAL ROUNDS																		

2. Larvicides

Larvicide																		
Year introduced																		
Formulation																		
Dosage																		
Frequency																		
Year terminated																		
TOTAL ROUNDS																		

(B) In Agriculture (if obtainable)

Pesticide																		
Year introduced																		
Method of application																		
Crop protected																		
Formulation																		
Dosage																		
Frequency																		
Year terminated																		
TOTAL ROUNDS																		

Remarks: _____

* Fill in only once if more than one form is being used for the present tests.