

OFFICE DE LA RECHERCHE SCIENTIFIQUE ET TECHNIQUE OUTRE-MER

SERVICES SCIENTIFIQUES CENTRAUX - BONDY

18 décembre 1980

EVALUATION DE QUELQUES POUDRES A ACTIVITE INSECTICIDE

(B. t. i.) DENOMMEES "A, B, C, D, E" FOURNIES PAR LA
DIVISION DU CONTROLE DES VECTEURS DE L'O.M.S.

par

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1 ACTIVITE DES POUDRES -

1.1. Méthode et technique -

1.1.1. Matériel utilisé : *Aedes aegypti* souche Bora-Bora
maintenue au Laboratoire des S.S.C.-O.R.S.T.O.M. à
Bondy (France).

1.1.2. Stade : jeune stade IV

1.1.3. Evaluation de la mortalité : le pourcentage de
mortalité est évalué après 24 heures de contact.
chaque concentration est testée sur plusieurs lots
de 25 larves. La mortalité est déterminée en comptant,
à l'issue du temps de contact , les vivants.

ex. : 25 larves à jour 0 à jour 1 = 10 vivants

13 morts-moribond

ORSTOM.

2 nymphes

Fonds Documentaire (décomptées)

M = 23 - 10 = 13

N° : 81/80 000 82/ex 1

Cote : 18

* Service d'Entomologie médicale des S.S.C. - O.R.S.T.O.M.
Laboratoire de Recherches - 70, route d'Aulnay - 93140 - Bondy - France.

Date : 10 MARS 1981

Cette manière de compter a été adoptée car nous nous sommes rendu compte de la disparition d'un certain nombre de larves vraisemblablement mangées ; ces larves disparues sont comptées comme mortes.

1.2. Nous avons comparé les poudres à tester naturelles et séchées 72 heures à 50°C (Tableaux 1 à 5 (graphe) et tableaux de 1bis à 5bis).

Tous ces tests sont synchrones.

1.3. Nous avons testé dans un deuxième temps les larves issues de la même ponte à 24 heures d'intervalle (tableaux 6, 7, 8, 9, 10) ; les dilutions d'insecticide ont été préparées à partir de la même solution-mère : 400 mg/litre conservée au réfrigérateur 24 heures à 4°C.

1.4. Nous avons préparé des solutions-mères à 400 mg de poudre par litre et les avons testées après 24 heures de réfrigérateur à 4°C afin d'en évaluer l'éventuelle perte d'activité (tableaux 6 bis à 10 bis).

2 - RESULTATS -

2.1. Les poudres O.M.S. de composition inconnue s'inscrivent dans l'ordre suivant :

1 - A	- DL50	0,22 mg/l	(700 ui)
2 - C	- DL50	0,25 mg/l	(600 ui)
3 - B	- DL50	0,36 mg/l	(420 ui)
4 - E	- DL50	0,52 mg/l	(290 ui)

Ces résultats prennent en compte l'ensemble des tableaux de 1 à 5 et de 1 bis à 5 bis.

2.2. Une solution-mère peut être conservée au réfrigérateur pour être employée 24 heures plus tard (tableaux 1 Bis à 5 bis - 6 bis à 10 bis).

2.3. Des larves issues de la même ponte mais âgées de 24 heures de plus donnent des résultats sensiblement différents (tableaux de 6 à 10 ; aux dates du 21 et 22 octobre). Les larves les plus vieilles sont apparemment moins sensibles et ceci sans que la nymphe

soit trop importante ; ceci tient sans doute au fait que les poudres testées ne sont actives que par voie digestive et que l'activité alimentaire baisse chez le stade pharate anté nymphal.

2.4. Les essais rapportés au tableau 11 ont systématiquement portés sur des vieilles larves stade IV :

Ils montrent :

- a) que les vieilles larves sont moins sensibles ;
- b) que la disparition des larves (mangées) est sensible et ne doit pas être négligée.

WHO TEST FOR INSECTICIDE RESISTANCE IN ADULT MOSQUITOS

Tableau 1

A

Date: 21 MAR 1980

Insecticide: DDT (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)

Species: *A. aegypti* Bora Bora

Condition of mosquitoes: bioassayed/pravara/untreated/superficially treated
 Type of test or population: first time/routine check/complete retest
 Where collected: shelters/sprayed/unsprayed/outdoors/biting/bred out
 Exposure period (minutes):

Tests	Preliminary		Replicate 1		Replicate 2		Replicate 3		Totals (for comparable tests only)						
Date of test:															
Temperature during exposure period:															
Humidity during exposure period (%):															
Temperature during 24-hr holding period (°C):	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.							
Insecticide concentration (%):	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*
0.4 mg/l	20	25		18	25		21	25		23	25		82	100	82
0.3	21	25		15	25		12	25		15	25		63	100	63
0.2	10	25		11	25		15	25		3	25		37	100	37
0.1	3	25		2	25		5	25		2	25		12	100	12
Control (C. 100%)													0	100	0

* Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)

One copy of this form to be sent on completion to: World Health Organization, Vector Control Unit, Division of Environmental Health, Geneva, Switzerland. A second copy to be sent on completion to the appropriate WHO Regional Office.

La solution mère est préparée extemporanément à partir de la poudre à non séchée.

Report Form

WHO TEST FOR INSECTICIDE RESISTANCE IN ADULT MOSQUITOS

Tableau 1 bis

A

Date: 21 MAR 1980

Insecticide: DDT (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)

Species: *A. aegypti* Bora Bora

Condition of mosquitoes: bioassayed/pravara/untreated/superficially treated
 Type of test or population: first time/routine check/complete retest
 Where collected: shelters/sprayed/unsprayed/outdoors/biting/bred out
 Exposure period (minutes):

Tests	Preliminary		Replicate 1		Replicate 2		Replicate 3		Totals (for comparable tests only)						
Date of test:															
Temperature during exposure period:															
Humidity during exposure period (%):															
Temperature during 24-hr holding period (°C):	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.							
Insecticide concentration (%):	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*
0.4 mg/l	25	25		22	25		20	25		21	25		86	100	86
0.3	15	25		19	25		14	25		16	25		67	100	67
0.2	9	25		11	25		9	25		14	25		43	100	43
0.1	6	25		4	25		0	25		3	25		13	100	13
Control (C. 100%)															

* Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)

Report Form **Tableau 2**

B
non séché

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOS

Date: **5 mai 1980**

Record No. _____

Insecticide: DDT/dieldrin/other: _____
 Investigator: _____
 Province: _____
 History of insecticide treatment (including agriculture): _____

Species: **A. gambiae Bora Bora**
 1. Country: _____
 4. Locality: _____

Condition of mosquitoes: blood-fed/previd/unfed/sugar-fed/males: _____
 Type of test on population: first time/routine check/complete retest: _____
 7. Where collected: shelters/sprayed/unsprayed/outdoors/biting/bred out: _____
 8. Exposure period (minutes): _____

Tests	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
Date of test:															
Temperature during exposure period:															
Humidity during exposure period (%):															
Temperature during 24-hr holding period (°C)	Max. Min.			Max. Min.			Max. Min.			Max. Min.					
Insecticide concentration (%)	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹
0.4 mg/l	13	25		13	25		14	25		14	25		54	75	57
0.3	13	25		18	25		10	25		13	25		54	75	54
0.2	9	25		9	25		5	25		12	25		35	75	35
0.1	8	25		1	25		1	25		1	25		5	25	5
Control (on alone)															

¹ Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)

Remarks: _____
 Interpretation of results (optional): _____
 Signature of investigator: _____

One copy of this form to be sent on completion to: World Health Organization, Vector Control Unit, Division of Environmental Health, Geneva, Switzerland.
 A second copy to be sent on completion to the appropriate WHO Regional Office.

Report Form **Tableau 2 bis**

B
séché

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOS

Date: **14 mai 1980**

Record No. _____

Insecticide: DDT/dieldrin/other: _____
 Investigator: _____
 Province: _____
 History of insecticide treatment (including agriculture): _____

Species: **A. gambiae Bora Bora ST 10**
 2. Country: _____
 4. Locality: _____

Condition of mosquitoes: blood-fed/previd/unfed/sugar-fed/males: _____
 Type of test on population: first time/routine check/complete retest: _____
 7. Where collected: shelters/sprayed/unsprayed/outdoors/biting/bred out: _____
 8. Exposure period (minutes): _____

Tests	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
Date of test:	Poudre B (OMS) séché														
Temperature during exposure period:															
Humidity during exposure period (%):															
Temperature during 24-hr holding period (°C)	Max. Min.			Max. Min.			Max. Min.			Max. Min.					
Insecticide concentration (%)	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹
0.4	15	25		12	25		11	25		14	25		52	75	52
0.3	11	25		9	25		10	25		10	25		40	75	40
0.2	4	25		6	25		8	25		11	25		29	75	29
0.1	3	25		5	25		0	25		2	25		10	75	10
Control (on alone)															

¹ Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)

Remarks: _____
 Interpretation of results (optional): _____

Report Form *Tableau 3*

C
non séché

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOS

date *21. mai 1980*

Record No. _____

insecticide: DDT/dieldrin/other: _____ Species: *A. aegypti Bora Bora*
 Investigator: _____ Country: _____
 Province: _____ Locality: _____
 History of insecticide treatment (including agriculture): _____

Condition of mosquitoes: blood-fed/pravid/unfed/super-fed/males? _____ 7. Where collected: shelters/sprayed/unsprayed/outdoors/biting/bred out?
 Type of test on population: first time/routine check/complete retest? _____ 8. Exposure period (minutes): _____

Tests	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
Date of test:															
Temperature during exposure period															
Humidity during exposure period (%)															
Temperature during 24-hr holding period (°C)	Max. Min.			Max. Min.			Max. Min.			Max. Min.					
Insecticide concentration (%)	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*
<i>0,4 mg/l</i>	<i>19</i>	<i>25</i>		<i>21</i>	<i>25</i>		<i>19</i>	<i>25</i>		<i>13</i>	<i>25</i>		<i>76</i>		<i>76</i>
<i>0,3</i>	<i>14</i>	<i>25</i>		<i>18</i>	<i>25</i>		<i>11</i>	<i>25</i>		<i>10</i>	<i>25</i>		<i>53</i>		<i>53</i>
<i>0,2</i>	<i>10</i>	<i>25</i>		<i>11</i>	<i>25</i>		<i>9</i>	<i>25</i>		<i>9</i>	<i>25</i>		<i>39</i>		<i>39</i>
<i>0,1</i>	<i>2</i>	<i>25</i>		<i>3</i>	<i>25</i>		<i>2</i>	<i>25</i>		<i>1</i>	<i>25</i>		<i>8</i>		<i>8</i>
Control (oil alone)															

Cross out what does not apply. * Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)
 Remarks: _____
 Interpretation of results (optional): _____
 Signature of investigator: _____

The copy of this form to be sent on completion to: World Health Organization, Vector Control Unit, Division of Environmental Health, Geneva, Switzerland.
 A second copy to be sent on completion to the appropriate WHO Regional Office.

Report Form *Tableau 3 bis*

séché, C

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOS

date *13. 14. mai 80*

Record No. _____

insecticide: DDT/dieldrin/other: _____ Species: *A. aegypti Bora Bora St IV*
 Investigator: _____ Country: _____
 Province: _____ Locality: _____
 History of insecticide treatment (including agriculture): _____

Condition of mosquitoes: blood-fed/pravid/unfed/super-fed/males? _____ 7. Where collected: shelters/sprayed/unsprayed/outdoors/biting/bred out?
 Type of test on population: first time/routine check/complete retest? _____ 8. Exposure period (minutes): _____

Tests	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
Date of test:															
Temperature during exposure period	<i>Pourir @ C (0ms) séché</i>														
Humidity during exposure period (%)															
Temperature during 24-hr holding period (°C)	Max. Min.			Max. Min.			Max. Min.			Max. Min.					
Insecticide concentration (%)	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*
<i>0,4</i>	<i>14</i>	<i>25</i>		<i>23</i>	<i>25</i>		<i>18</i>	<i>25</i>		<i>19</i>	<i>25</i>		<i>74</i>	<i>100</i>	<i>74</i>
<i>0,3</i>	<i>12</i>	<i>25</i>		<i>11</i>	<i>25</i>		<i>13</i>	<i>25</i>		<i>15</i>	<i>25</i>		<i>55</i>	<i>100</i>	<i>55</i>
<i>0,2</i>	<i>10</i>	<i>25</i>		<i>11</i>	<i>25</i>		<i>10</i>	<i>25</i>		<i>10</i>	<i>25</i>		<i>41</i>	<i>100</i>	<i>41</i>
<i>0,1</i>	<i>4</i>	<i>25</i>		<i>1</i>	<i>25</i>		<i>5</i>	<i>25</i>		<i>4</i>	<i>25</i>		<i>14</i>	<i>100</i>	<i>14</i>
Control (oil alone)															

Cross out what does not apply. * Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)
 Remarks: _____
 Interpretation of results (optional): _____

Report Form *Tableau 4*

D. m. séchie

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOS

Date: *21 Nov. 1980*

Record No.

Insecticide: *DDT/dieldrin/other*
 Investigator:
 Province:
 History of insecticide treatment (including agriculture):

Species: *A. aegypti Bora Bora*
 1. Country:
 4. Locality:

Condition of mosquitoes: *blood-fed/pravid/unfed/super-fed/males*
 Type of test on population: *first time/routine check/complete retest*

7. Where collected: *shelters/sprayed/unsprayed/outdoors/biting/bred out*
 9. Exposure period (minutes):

Tests	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
Date of test															
Temperature during exposure period															
Humidity during exposure period (%)															
Temperature during 24-hr holding period (°C)	Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.	
Insecticide concentration (%)	Dead	Total	Mort. (% corr.)	Dead	Total	Mort. (% corr.)	Dead	Total	Mort. (% corr.)	Dead	Total	Mort. (% corr.)	Dead	Total	Mort. (% corr.)
<i>3.2 mg/l</i>	<i>1</i>	<i>25</i>		<i>2</i>	<i>25</i>		<i>3</i>	<i>25</i>		<i>1</i>	<i>25</i>		<i>7</i>	<i>100</i>	<i>7</i>
<i>1.6 "</i>	<i>1</i>	<i>25</i>		<i>1</i>	<i>25</i>		<i>1</i>	<i>25</i>		<i>0</i>	<i>25</i>		<i>3</i>	<i>100</i>	<i>3</i>
<i>0.8 "</i>	<i>0</i>	<i>25</i>		<i>2</i>	<i>25</i>		<i>2</i>	<i>25</i>		<i>1</i>	<i>25</i>		<i>4</i>	<i>100</i>	<i>4</i>
<i>0.4 "</i>	<i>1</i>	<i>25</i>		<i>1</i>	<i>25</i>		<i>0</i>	<i>25</i>		<i>0</i>	<i>25</i>		<i>2</i>	<i>100</i>	<i>2</i>
Control (if alone)															

Correct by applying Abbott's formula if control mortality is between 15% and 20% (see instructions).
 Interpretation of results (optional):
 Signature of investigator:

This form is to be sent on completion to: World Health Organization, Vector Control Unit, Division of Environmental Health, Geneva, Switzerland.
 A second copy is to be sent on completion to the appropriate WHO Regional Office.

Report Form *Tableau 4 bis*

D séchie

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOS

Date: *21 Nov. 1981*

Record No.

Insecticide: *DDT/dieldrin/other*
 Investigator:
 Province:
 History of insecticide treatment (including agriculture):

Species: *Ae. aegypti Bora Bora*
 1. Country:
 4. Locality:

Condition of mosquitoes: *blood-fed/pravid/unfed/super-fed/males*
 Type of test on population: *first time/routine check/complete retest*

7. Where collected: *shelters/sprayed/unsprayed/outdoors/biting/bred out*
 9. Exposure period (minutes):

Tests	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
Date of test															
Temperature during exposure period															
Humidity during exposure period (%)															
Temperature during 24-hr holding period (°C)	Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.	
Insecticide concentration (%)	Dead	Total	Mort. (% corr.)	Dead	Total	Mort. (% corr.)	Dead	Total	Mort. (% corr.)	Dead	Total	Mort. (% corr.)	Dead	Total	Mort. (% corr.)
<i>3.2 mg/l</i>	<i>6</i>	<i>25</i>		<i>5</i>	<i>25</i>		<i>4</i>	<i>25</i>		<i>4</i>	<i>25</i>		<i>19</i>	<i>100</i>	<i>19</i>
<i>1.6 mg/l</i>	<i>1</i>	<i>25</i>		<i>2</i>	<i>25</i>		<i>1</i>	<i>25</i>		<i>1</i>	<i>25</i>		<i>5</i>	<i>100</i>	<i>5</i>
<i>0.8 "</i>	<i>1</i>	<i>25</i>		<i>0</i>	<i>25</i>		<i>0</i>	<i>25</i>		<i>1</i>	<i>25</i>		<i>2</i>	<i>100</i>	<i>2</i>
<i>0.4 "</i>	<i>0</i>	<i>25</i>		<i>0</i>	<i>25</i>		<i>0</i>	<i>25</i>		<i>0</i>	<i>25</i>		<i>0</i>	<i>100</i>	<i>0</i>
Control (if alone)															

Correct by applying Abbott's formula if control mortality is between 15% and 20% (see instructions).
 Interpretation of results (optional): *positive D séchie 72 h à 50°C*

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOS

Date *9 MAR 1980*

Record No. _____

Insecticide: DDT/dieldrin/other: _____ Species: _____

1. Investigator: _____ 2. Country: _____

3. Province: _____ 4. Locality: _____

5. History of insecticide treatment (including agriculture): _____

6. Condition of mosquitoes: blood-fed/graavid/unfed/sugar-fed/males: _____ 7. Where collected: shelters/sprayed/unsprayed/outdoors/biting/bred out: _____

8. Type of test on population: first time/routine check/complete retest: _____ 9. Exposure period (minutes): _____

Test	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
Date of test															
Temperature during exposure period															
Humidity during exposure period (%)															
Temperature during 24-hr holding period (°C)	Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.	
Insecticide concentration (%)	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹
<i>0,4</i>	<i>14</i>	<i>25</i>		<i>10</i>	<i>25</i>		<i>12</i>	<i>25</i>		<i>16</i>	<i>25</i>		<i>48</i>	<i>25</i>	<i>48</i>
<i>0,3</i>	<i>15</i>	<i>25</i>		<i>7</i>	<i>25</i>		<i>5</i>	<i>25</i>		<i>6</i>	<i>25</i>		<i>33</i>	<i>25</i>	<i>33</i>
<i>0,2</i>	<i>7</i>	<i>25</i>		<i>4</i>	<i>25</i>		<i>6</i>	<i>25</i>		<i>8</i>	<i>25</i>		<i>25</i>	<i>25</i>	<i>25</i>
<i>0,1</i>	<i>4</i>	<i>25</i>		<i>4</i>	<i>25</i>		<i>4</i>	<i>25</i>		<i>3</i>	<i>25</i>		<i>15</i>	<i>25</i>	<i>15</i>
Control (oil alone)															

¹ Cross out what does not apply. ² Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)

Remarks: _____

Interpretation of results (optional): _____

Signature of investigator: _____

One copy of this form to be sent on completion to: World Health Organization, Vector Control Unit, Division of Environmental Health, Geneva, Switzerland. A second copy to be sent on completion to the appropriate WHO Regional Office.

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOS

Date *13-14 MAR 80*

Record No. _____

Insecticide: DDT/dieldrin/other: _____ Species: *A. aegypti Bona Bona 21 II*

1. Investigator: _____ 2. Country: _____

3. Province: _____ 4. Locality: _____

5. History of insecticide treatment (including agriculture): _____

6. Condition of mosquitoes: blood-fed/graavid/unfed/sugar-fed/males: _____ 7. Where collected: shelters/sprayed/unsprayed/outdoors/biting/bred out: _____

8. Type of test on population: first time/routine check/complete retest: _____ 9. Exposure period (minutes): _____

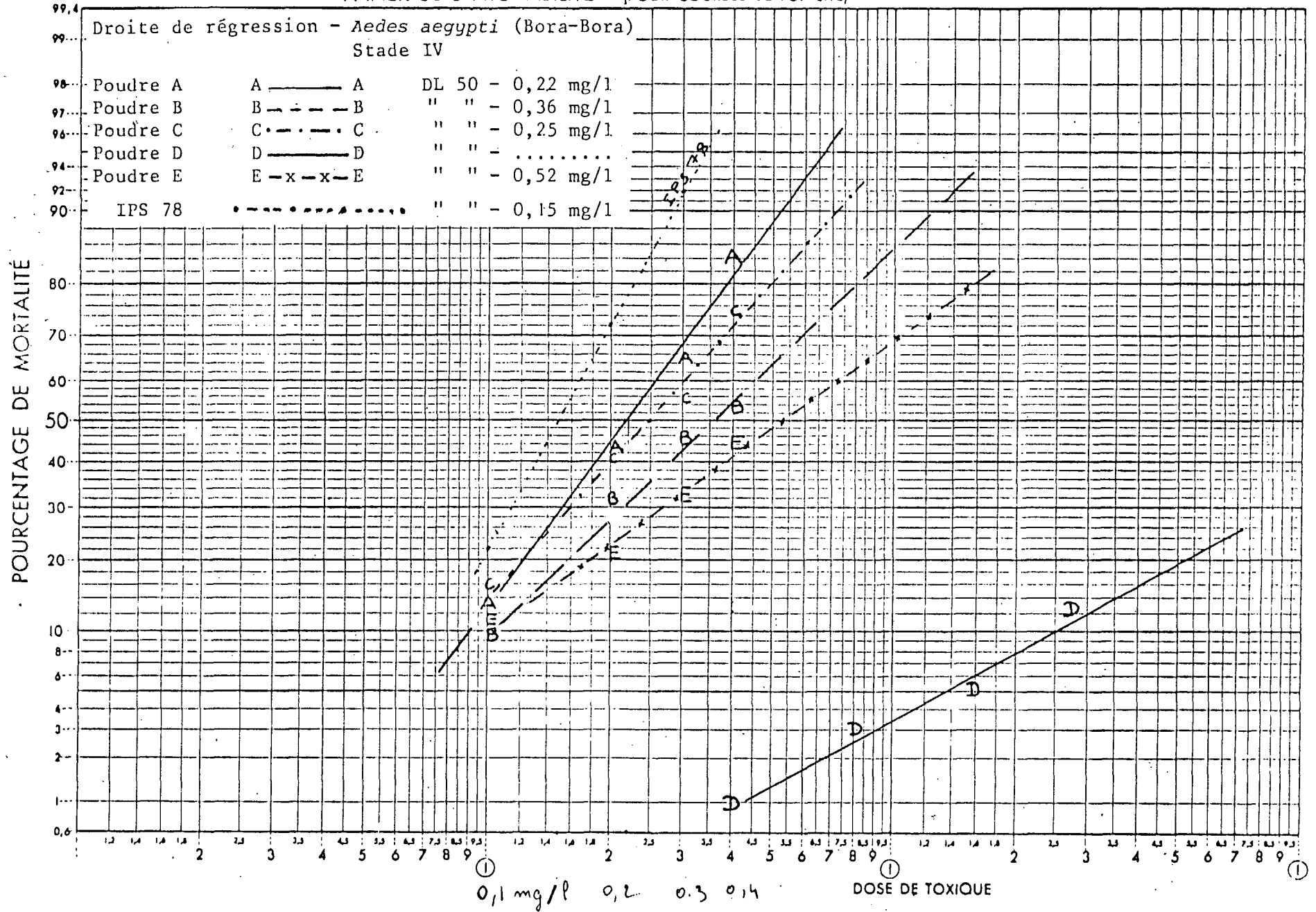
Test	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
Date of test															
Temperature during exposure period	<i>Pour une E (ans) séché</i>														
Humidity during exposure period (%)															
Temperature during 24-hr holding period (°C)	Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.	
Insecticide concentration (%)	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹
<i>0,4</i>	<i>9</i>	<i>25</i>		<i>10</i>	<i>25</i>		<i>10</i>	<i>25</i>		<i>13</i>	<i>25</i>		<i>42</i>	<i>100</i>	<i>42</i>
<i>0,3</i>	<i>14</i>	<i>25</i>		<i>13</i>	<i>25</i>		<i>7</i>	<i>25</i>		<i>2</i>	<i>25</i>		<i>33</i>	<i>100</i>	<i>33</i>
<i>0,2</i>	<i>4</i>	<i>25</i>		<i>10</i>	<i>25</i>		<i>2</i>	<i>25</i>		<i>1</i>	<i>25</i>		<i>17</i>	<i>100</i>	<i>17</i>
<i>0,1</i>	<i>6</i>	<i>25</i>		<i>2</i>	<i>25</i>		<i>1</i>	<i>25</i>		<i>1</i>	<i>25</i>		<i>10</i>	<i>100</i>	<i>10</i>
Control (oil alone)															

¹ Cross out what does not apply. ² Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)

Remarks: _____

Interpretation of results (optional): _____

PAPIER LOG-PROBABILITÉ (POUR COURBES DE TOXICITÉ)



WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOS

Date: 2 Octobre 1970

Insecticide: DDT (di or other): B. thuringiensis A

Record No.

Species: Ae. aegypti (Bona-Bona)

1. Investigator: ...

2. Country: ...
3. Province: ...
4. Locality: ...

5. History of insecticide treatment (including agriculture): ...

6. Condition of mosquito: blood-fed/unfed/unfed/1st/2nd/3rd/4th instars

7. Where collected: shelters/sprayed/unsprayed/outdoors/biting/bred out

Type of test on population: first time/routine check/complete retest

8. Exposure period (minutes): ...

Test	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
Date of test:	21 Oct.			21 Oct.			22 Oct.			22 Oct.					
Temperature during exposure period															
Humidity during exposure period (%)															
Temperature during 24-hr holding period (°C)	Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.				
Insecticide concentration (%)	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*
0,4 mg/l	24	25		24	25		22	25		23	25		93	100	93
0,3	19	25		21	25		21	25		15	24		76	99	76
0,2	16	25		17	25		5	25		10	25		48	100	48
0,1	3	25		6	25		1	25		6	25		16	100	16
Control (oil alone)				0	50					0	50		0	100	0

* Cross out what does not apply. Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)

Remarks: la solution mère à 400 mg/litre préparée le 21 octobre a été conservée au réfrigérateur à +4°C 24 heures

One copy of this form to be sent or couriered to the World Health Organization, Vector Control Unit, Division of Environmental Health, Geneva, Switzerland. A second copy to be sent or couriered to the appropriate WHO Regional Office.

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOS

Date: 14 novembre 70

Insecticide: DDT (di or other): ...

Record No.

Species: Ae. aegypti (Bona-Bona)

1. Investigator: ...

2. Country: ...
3. Province: ...
4. Locality: ...

5. History of insecticide treatment (including agriculture): B. thuringiensis A

6. Condition of mosquito: blood-fed/unfed/unfed/1st/2nd/3rd/4th instars

7. Where collected: shelters/sprayed/unsprayed/outdoors/biting/bred out

Type of test on population: first time/routine check/complete retest

8. Exposure period (minutes): ...

Test	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
Date of test:															
Temperature during exposure period															
Humidity during exposure period (%)															
Temperature during 24-hr holding period (°C)	Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.				
Insecticide concentration (%)	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*	Dead	Total	Mort. (%) corr.*
0,4 mg/l	23	25		22	25								45	50	90
0,3 mg/l	20	25		23	25								43	50	86
0,2 mg/l	10	25		11	25								21	50	42
0,1 "	8	25		7	25								15	50	30
Control (oil alone)													0	100	0

* Cross out what does not apply. Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)

Remarks: la solution mère à 400 mg/litre de poudre sèche 72 h à 50°C a été conservée 24 h au réfrigérateur à +4°C avant d'être utilisée

Poussé A sèche

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOS

Date: 21-22 Oct. 1980

Insecticide: DDT/dieldrin/other: B. thuringiensis B

Record No.:

Species: Ae. aegypti (Bora Bora)

1. Investigator: _____ 2. Country: _____

3. Province: _____ 4. Locality: _____

5. History of insecticide treatment (including agriculture): _____

6. Condition of mosquitos: blood-fed/graavid/unfed/sugar-fed/males?

7. Where collected: shelter/sprayed/unsprayed/outdoors/biting/bred out?

8. Type of test on population: first time/routine check/complete retest?

9. Exposure period (minutes): _____

Tests	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)					
Date of test	21 Oct.			21 Oct.			22 Oct.			22 Oct.								
Temperature during exposure period																		
Humidity during exposure period (%)																		
Temperature during 24-hr holding period (°C)	Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.							
Insecticide concentration (%)	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹			
0,4 mg/l	18	25		19	25		15	25		15	25		67	100	67			
0,3	17	25		16	25		5	24		5	25		43	99	43,4			
0,2	15	25		14	25		3	25		1	25		33	100	33			
0,1	7	25		8	25		0	24		0	25		15	99	15,2			
Control (oil alone)							Solution mée 24 h à 4°C											

¹ Cross out what does not apply ² Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)

Remarks: _____

Interpretation of results (optional): _____

Signature of investigator: _____

One copy of this form to be sent on completion to: World Health Organization, Vector Control Unit, Division of Environmental Health, Geneva, Switzerland.
A second copy to be sent on completion to the appropriate WHO Regional Office.

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOS

Pointe B sèche

Date: 14 NOV. 80

Insecticide: DDT/dieldrin/other: B. thuringiensis B

Record No.:

Species: _____

1. Investigator: _____ 2. Country: _____

3. Province: _____ 4. Locality: _____

5. History of insecticide treatment (including agriculture): _____

6. Condition of mosquitos: blood-fed/graavid/unfed/sugar-fed/males?

7. Where collected: shelter/sprayed/unsprayed/outdoors/biting/bred out?

8. Type of test on population: first time/routine check/complete retest?

9. Exposure period (minutes): _____

Tests	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
Date of test															
Temperature during exposure period															
Humidity during exposure period (%)															
Temperature during 24-hr holding period (°C)	Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.				
Insecticide concentration (%)	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹
0,4 mg/l	7	25		12	25								19	50	38%
0,3	5	25		12	25								17	50	34
0,2	3	25		2	25								5	50	10
0,1	1	25		3	25								4	50	8
Control (oil alone)															

¹ Cross out what does not apply ² Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)

Remarks: _____

Interpretation of results (optional): la solution mée a 400 mg/litre de poudre sèche 72 h à 50°C

et conservée 24 h au réfrigérateur à 4°C avant l'emploi.

Signature of investigator: _____

One copy of this form to be sent on completion to: World Health Organization, Vector Control Unit, Division of Environmental Health, Geneva, Switzerland.

Report Form **Tableau 8**

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOES

Date: **21-22 Oct 1980**

Record No. _____

Insecticide: DDT/dieldrin/other: **B. thuringiensis C**

Species: **Ac. aegypti (Bora-Bora)**

Investigator: _____

1. Country: _____

Province: _____

2. Locality: _____

History of insecticide treatment (including agriculture): _____

Condition of mosquitoes: blood-fed/pravid/united/sugar-fed/males: _____

7. Where collected: shelters/sprayed/unsprayed/outdoors/biting/bred out: _____

Type of test on population: first time/routine check/complete test: _____

8. Exposure period (minutes): _____

Tests	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
Date of test:	21 Oct.			21 Oct.			22 Oct.			22 Oct.					
Temperature during exposure period															
Humidity during exposure period (%)															
Temperature during 24-hr holding period (°C)	Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.				
Insecticide concentration (%)	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹
0.4 mg/l	17	25		20	25		18	25		18	25		75	100	75
0.3	20	25		18	25		18	25		12	25		68	100	68
0.2	8	25		10	25		12	25		8	25		38	100	38
0.1	8	25		11	25		2	25		2	25		23	100	28
Control (oil alone)							solution made 24 h à 4°C								

Cross out what does not apply. ¹ Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)

Remarks: _____

Interpretation of results (optional): _____

Signature of investigator: _____

One copy of this form to be sent on completion to: World Health Organization, Vector Control Unit, Division of Environmental Health, Geneva, Switzerland.
Second copy to be sent on completion to the appropriate WHO Regional Office.

Report Form **Tableau 8 bis**

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOES

Poudre C

Date: **14 NOV.**

Record No. _____

Insecticide: DDT/dieldrin/other: _____

Species: **A. aegypti Bora Bora st IV**

Investigator: _____

1. Country: _____

Province: _____

2. Locality: _____

History of insecticide treatment (including agriculture): _____

Condition of mosquitoes: blood-fed/pravid/united/sugar-fed/males: _____

7. Where collected: shelters/sprayed/unsprayed/outdoors/biting/bred out: _____

Type of test on population: first time/routine check/complete test: _____

8. Exposure period (minutes): _____

Tests	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
Date of test															
Temperature during exposure period	Poudre C, la solution à 400 mg/litre a été														
Humidity during exposure period (%)	conservée 24 heures à + 4°C avant usage														
Temperature during 24-hr holding period (°C)	Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.				
Insecticide concentration (%)	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹
0.4 mg/l	18	25		18	25								36	50	72
0.3	8	25		13	25								21	50	42
0.2	12	25		9	25								21	50	42
0.1	3	25		3	25								6	50	12
Control (oil alone)															

Cross out what does not apply. ¹ Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)

Remarks: _____

Interpretation of results (optional): _____

Signature of investigator: _____

Report Form

Tableau 9

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOS

Date: 21-22 Oct 1980

Record No.

Insecticide: DDT/dieldrin/other: B. thuringensis D

Species: Ae. aegypti - (Bona Bona)

1. Investigator: _____

2. Country: _____

3. Province: _____

4. Locality: _____

5. History of insecticide treatment (including agriculture): _____

6. Condition of mosquitos: blood-fed/gravid/united/sugar-fed/males?

7. Where collected: shelters/sprayed/unsprayed/outdoors/biting/bred out?

8. Type of test on population: first time/routine check/complete retest?

9. Exposure period (minutes): _____

Test	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
Date of test:	21 oct			21 oct			22 oct			22 oct					
Temperature during exposure period															
Humidity during exposure period (%)															
Temperature during 24-hr holding period (°C)	Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.				
Insecticide concentration (%)	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹
0.4 mg/l	6	25		7	25		0	24		1	24		15	98	15.3
0.3 mg/l	3	25		2	25		1	25		0	25		6	100	6
0.2 "	6	25		6	25		0	23		0	22		12	95	12.6
0.1 "	3	25		1	25		0	25		2	25		6	100	6
Control (oil alone)							solution mere 24 h à 4°C								

¹ Cross out what does not apply. ¹ Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)

Remarks: _____

Interpretation of results (optional): _____

Signature of investigator: _____

One copy of this form to be sent on completion to: World Health Organization, Vector Control Unit, Division of Environmental Health, Geneva, Switzerland. A second copy to be sent on completion to the appropriate WHO Regional Office.

Report Form

Tableau 9 bis

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOS

Pouéle D

Date: 14 nov 1980

Record No.

Insecticide: DDT/dieldrin/other: _____

Species: A.

1. Investigator: _____

2. Country: _____

3. Province: _____

4. Locality: _____

5. History of insecticide treatment (including agriculture): _____

6. Condition of mosquitos: blood-fed/gravid/united/sugar-fed/males?

7. Where collected: shelters/sprayed/unsprayed/outdoors/biting/bred out?

8. Type of test on population: first time/routine check/complete retest?

9. Exposure period (minutes): _____

Tests	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
Date of test															
Temperature during exposure period	Pouéle D (ons). La solution mere à 400 mg/l														
Humidity during exposure period (%)	a été conservée 24 heures à +4°C avant usage.														
Temperature during 24-hr holding period (°C)	Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.				
Insecticide concentration (%)	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹
0.4 mg/l	1	25		0	25								1	50	2
0.3 "	0	25		1	25								1	50	2
0.2 "	0	25		0	25								0	50	0
0.1 "	0	25		0	25								0	50	0
Control (oil alone)															

¹ Cross out what does not apply. ¹ Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)

Remarks: _____

Interpretation of results (optional): _____

Signature of investigator: _____

One copy of this form to be sent on completion to: World Health Organization, Vector Control Unit, Division of Environmental Health, Geneva, Switzerland. A second copy to be sent on completion to the appropriate WHO Regional Office.

Report Form

Tableau 10

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOS

Date: 27.22 Oct 1980
 Insecticide: DDT/dieldrin/other: B. thuringiensis E
 Species: Ae. aegypti (Bora-Bora)
 Investigator: _____
 Province: _____
 History of insecticide treatment (including agriculture): _____
 Condition of mosquitos: blood-fed/graavid/unfed/sugar-fed/males?
 Type of test on population: first time/routine check/complete retest?
 2. Country: _____
 4. Locality: _____
 7. Where collected: shelters sprayed/unsprayed/outdoors/biting/bred out?
 8. Exposure period (minutes): _____

Tests	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹			
Date of test:	21 Oct.			21 Oct.			22 Oct.			22 Oct.					
Temperature during exposure period															
Humidity during exposure period (%)															
Temperature during 24-hr holding period (°C)	Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.				
Insecticide concentration (%)	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹
0.4 mg/l	20	25		19	25		8	25		11	23		58	98	59.2
0.3 "	21	25		13	25		10	25		15	25		63	100	63
0.2 "	8	25		9	25		9	25		3	24		29	99	29.3
0.1 "	3	25		3	25		3	25		3	24		12	99	12.1
Control (oil alone)							Solution, mere 24 heures a 4°C								

Cross out what does not apply
 1 Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)
 Interpretation of results (optional):
 Signature of investigator: _____

one copy of this form to be sent on completion to: World Health Organization, Vector Control Unit, Division of Environmental Health, Geneva, Switzerland.
 second copy to be sent on completion to the appropriate WHO Regional Office.

Report Form

Tableau 10 bis

Poudre E

WHO TEST FOR INSECTICIDE-RESISTANCE IN ADULT MOSQUITOS

Date: 14 Nov 1980
 Insecticide: DDT/dieldrin/other: _____
 Species: Ae. aegypti (Bora-Bora)
 Investigator: _____
 Province: _____
 History of insecticide treatment (including agriculture): B. thuringiensis E
 Condition of mosquitos: blood-fed/graavid/unfed/sugar-fed/males?
 Type of test on population: first time/routine check/complete retest?
 2. Country: _____
 4. Locality: _____
 7. Where collected: shelters sprayed/unsprayed/outdoors/biting/bred out?
 9. Exposure period (minutes): _____

Tests	Preliminary			Replicate 1			Replicate 2			Replicate 3			Totals (for comparable tests only)		
	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹			
Date of test:															
Temperature during exposure period															
Humidity during exposure period (%)															
Temperature during 24-hr holding period (°C)	Max.	Min.		Max.	Min.		Max.	Min.		Max.	Min.				
Insecticide concentration (%)	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹	Dead	Total	Mort. (%) corr. ¹
0.4 mg/l	3	25		3	25								6	50	12
0.3 "	2	25		8	25								5	50	10
0.2 "	0	25		1	25								1	50	2
0.1 "	0	25		1	25								1	50	2
Control (oil alone)															

Cross out what does not apply
 1 Correct by applying Abbott's formula if control mortality is between 5% and 20% (see instructions)
 Interpretation of results (optional):
 la solution mere a 400 mg/litre de poudre seche 72 heures a 50°C
 ete conservee 24 heures au refrigerateur a +4°C
 Signature of investigator: _____

one copy of this form to be sent on completion to: World Health Organization, Vector Control Unit, Division of Environmental Health, Geneva, Switzerland.

Poudre A	0,4	11 17	1 0	12 7	1 1	24 24	29/48 60,4%	10 4	1 6	14 13	0 2	25 23	21/48 43,7%	0 1	8 5	14 16	3 3	22 22	14/47 31,8%	3	6	11	5	20	9/20 45%
	0,3	11 6	1 2	11 15	1 2	24 23	20/47 42,6%	14 7	2 6	8 9	1 3	24 22	29/46 63%	2 1	8 8	12 13	3 3	22 22	19/47 40,2%	8	7	6	4	21	15/21 71,4%
	0,2	6 6	4 1	14 14	4 1	21 24	17/45 37,8%	3 4	4 4	16 15	2 2	23 23	15/46 32,6%	1 1	1 3	19 18	4 3	21 22	6/43 13,9%	2	2	16	5	20	4/20 20%
	0,1	2 0	1 3	22 22	1 3	24 22	2/46 4,4%	1 4	1 2	20 16	3 3	22 22	8/44 18,2%	1 0	0 0	20 20	4 5	21 20	1/41 2,5%	2	2	16	5	20	4/20 20%
Poudre B	0,4	2 4	1 0	19 21	3 0	22 25	7/47 14,9%	2 2	2 1	18 18	3 4	22 21	7/43 16,3%	0 3	6 3	15 16	4 3	21 22	12/43 27,9%	4	0	16	5	20	4/20 20%
	0,3	5 2	0 0	19 21	1 2	24 23	7/47 14,9%	1 2	3 1	18 18	3 4	22 21	7/43 16,3%	5 1	5 1	12 20	3 3	22 22	12/44 27,3%	0	3	17	5	20	3/20 15%
	0,2	15 2	1 1	6 21	3 1	22 24	19/46 41,3%	2 1	1 0	18 20	4 4	21 21	4/42 9,5%	0 1	0 0	22 21	3 3	22 22	1/47 2,3%	2	0	17	6	19	2/19 10,5%
	0,1	0 0	0 0	25 23	0 2	25 23	0/48 0%	0 0	0 0	21 22	4 3	21 22	0/43 0%	0 1	1 2	22 20	2 2	23 23	4/46 8,7%	0	0	21	4	21	0/21 0%
Poudre C	0,4	3 5	0 0	19 19	3 1	22 24	5/46 10,9%	3 4	1 1	16 15	5 5	20 20	9/40 22,5%	0 2	4 3	16 13	5 7	20 18	9/38 23,7%	9	10	3	3	22	19/22 86,4%
	0,3	4 5	1 1	17 19	3 0	22 25	11/47 23,4%	4 5	2 1	16 13	3 6	22 19	12/41 29,3%	1 0	3 6	18 13	3 6	22 19	10/41 24,4%	1	7	16	1	24	8/24 33,4%
	0,2	0 0	0 0	22 23	3 2	22 23	0/45 0%	4 2	0 1	17 17	4 5	21 20	7/41 17,1%	0 1	1 1	19 20	5 3	20 22	3/42 7,1%	2	2	17	4	21	4/21 19%
	0,1	1 0	0 0	21 24	3 1	22 24	1/46 2,2%	1 1	1 0	20 20	3 4	22 21	3/43 7%	0 1	2 0	19 22	4 2	21 23	3/44 6,8%	3	0	17	5	20	3/20 15%
Poudre E	0,4	2 2	0 0	22 21	1 2	24 23	4/47 8,5%	3 1	2 2	16 18	4 4	21 21	8/42 19%	5 2	3 2	14 17	3 4	22 21	12/43 27,9%	2	2	21	0	25	4/25 16%
	0,3	2 2	0 0	22 23	1 2	24 25	4/49 8,2%	0 0	1 2	21 20	3 3	22 22	3/44 6,8%	2 1	2 0	19 21	2 3	23 21	5/44 11,4%	1	4	17	3	22	5/22 22,7%
	0,2	2 0	0 0	23 25	0 0	25 25	2/50 4%	3 3	0 4	18 14	4 4	21 21	10/42 23,8%	1 1	3 0	18 20	3 4	22 21	5/43 11,6%	0	8	15	2	23	8/23 34,8%
	0,1	2 1	0 0	22 20	1 4	24 21	3/45 6,7%	0 0	0 0	20 21	5 4	20 21	0/41 0%	0 0	0 0	20 20	5 5	20 20	0/40 0%	0	2	18	5	20	2/20 10%
Poudre D	0,4	1 0		24 23	0 2	25 23	1/48 2,1%	0 0	1 0	17 21	7 4	18 21	1/39 2,6%	1 1	2 0	20 21	2 3	23 22	4/45 8,9%	0	0	20	5	20	0/20 0%
	0,3	0 0		24 24	1 1	24 24	0/48 0%	0 0	1 1	20 20	5 4	20 21	1/41 2,4%	0 0	1 0	21 17	3 8	22 17	1/39 2,6%	0	0	19	6	19	0/19 0%
	0,2	1 0		20 24	4 1	21 24	1/45 2,2%	0 0	1 0	22 20	2 5	23 20	1/43 2,3%	0 0	2 2	19 20	4 3	21 22	4/43 9,3%	0	0	21	4	21	0/21 0%
	0,1	0 1		23 23	2 1	23 24	1/47 2,1%	0 1	0 0	21 20	4 4	21 21	1/42 2,4%	0 0	1 0	22 21	2 4	23 21	1/47 2,3%	0	0	20	5	20	0/20 0%
TEMOIN	0 0	0 0	23 24	2 1	23 24	0/47 0%	0 0	0 0	20 20	5 5	25 25	0/25 0%	0 0	0 0	22 22	3 3	22 22	0/22 0%	0	0	19	6	19	0/19 0%	

Résultats de tests effectués
sur des *A. aegypti* (Bna Bna)
au stade IV (Nymphose importante)

- M - Morts
- D - disparus - mangés ?
- V - vivants
- N - Nymphes
- T - Total diminué des nymphes
- M% - Pourcentage des morts calculé sur T.

Tests effectués à 20°C
à 20°C
à 24°C
à 24°C