

Unofficial Translation  
(Draft)

Guideline on Principle, Procedure and Conditions for Residues Trial of Agricultural Hazardous Substance Annexed to Notification of Department of Agriculture entitled Details of Criteria and Procedure for Registration, Issuance and Extension of Hazardous Substances Registration Certificate under the Responsibility of Department of Agriculture B.E. 2552 (2009)

-----

In order to make experimental plan and report of residue trial of agricultural hazardous substance the same technical principle and standard, the following details are set up:

**No. 1** Whoever wishes to apply for hazardous substance registration in Phase 1, Trials Clearance, shall submit application for conducting residue trial using the form annexed to this Guideline together with 6 copies of experimental plan to the authority at Pesticide Regulatory Sub-division, Office of Agricultural Regulation before commencing the experiment at least 3 months.

**No. 2** Details of experimental plan for residues shall comply with "Guideline on experiment of agricultural hazardous substance residues" prepared by Department of Agriculture as follows.

(1) Experimental condition. It is required to specify crop specie, variety, location, number of trials, number of replication, plot size, spacing, fertilizer application, and other details.

(2) Application method. It is required to specify type of formulation recommended for use on that crop, method of application, dose rate, number of application, time interval, application of other hazardous substance and other data.

(3) Data recording. It is required to record details since the beginning of the experiment until the sample reach analytical laboratory, The details shall include common name, concentration, formulation, dose rate, method of application, location, name of crop specie, variety, name of responsible person, type of pest, climatic conditions, cultivation technique and other data.

It is required to take sample for residue analysis at different period after application of hazardous substance. The first sampling shall be done 2 hour after application (0 day). The second sampling shall be done 1-3 days after application. Sample shall be taken at least 4 times at various intervals depending on characteristic of hazardous substance and crop. Method of sampling and size of sample shall follow "Guideline on experiment of agricultural hazardous substance residue" prepared by Department of Agriculture.

**No. 3** When the residue trial is finished, the agency assigned by Department of Agriculture to conduct the experiment shall report the result of experiment using the form for reporting residue trial annexed to this Guidelines with in 6 months commencing from due date of the experimental plan and submit to the authority at the same place as mentioned in No.1

## Application for pesticide residues trial for registration

1. Trade name and/or Code number

2. Name and address of applicant

3. Name and address of manufacturer of active ingredients

4. Common name

5. Name of crop to be registered for use

6. Name of pest to be controlled

7. Chemical name in IUPAC system or chemical group

8. Use category e.g. insecticide, herbicide, etc.

9. Formulation and concentration

10. Experimental plan

10.1 Personnel and responsibility

10.2 Location of plot

10.3 Timing Start

End

10.4 Crop/commodity

10.5 Plot dimension in international units

vegetable : width X length .....m<sup>2</sup>

Fruit Number of trees : .....trees, Area: width X length ..... m<sup>2</sup>

10.6 Dose rate : ..... ☐ ml/20 liter water or ..... ☐ g/20 liter water

Number of spray.....times : Equivalent to.....g of a.i./rai

11. Method of residue analysis

12. Name and address of laboratory for sample analysis

.....  
.....  
.....  
.....  
.....  
.....

13. Annexes

13.1 Report on efficacy trial form Trials Clearance

13.2 Method of residue analysis

Signature.....Applicant  
(.....)

Signature.....Responsible personnel  
(.....)

**Note**

1. Submit the same sample of hazardous substance as for efficacy trial and quality analysis approved
2. Laboratory for residue analysis shall be ISO/IEC 17025 certified

For official use only

<p style="text-align: center;">Opinion of inspector</p> <p>1. Plot area      <input type="radio"/> appropriate    <input type="radio"/> not appropriate</p> <p>2. Method of residues analysis                         <input type="radio"/> appropriate    <input type="radio"/> not appropriate</p> <p>3. Analysis Lab.    <input type="radio"/> appropriate    <input type="radio"/> not appropriate</p> <p>4. Trial plan         <input type="radio"/> appropriate    <input type="radio"/> not appropriate</p> <p>5. Annexes (No.13) <input type="radio"/> appropriate    <input type="radio"/> not appropriate</p> <p>6. Other opinions</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>Signature.....                     (.....)</p> <p>Position .....</p> <p>Date .....</p>		<p style="text-align: center;">Opinion of Chief of Pesticide Residue Research Group</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>Signature.....                     (.....)</p> <p>Position .....</p> <p>Date .....</p>
<p style="text-align: center;">Opinion of Chief of Pesticide Research Group</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>Signature.....                     (.....)</p> <p>Position .....</p> <p>Date .....</p>	<p style="text-align: center;">Opinion of Director of Agricultural Production Science Research and Development Office</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>Signature.....                     (.....)</p> <p>Position .....</p> <p>Date .....</p>	

Form for recording information on trial plot

Name of owner (Mr./Mrs./Ms)..... Surname.....  
 Address No.....Village No. ....TroK/Soi.....  
 Street.....Kwaeng/Tambol.....Khet/Amphur.....  
 Province..... Post code.....  
 Tel. ....Fax. ....  
 e-mail .....website .....


Name of contact person or alternate  
 (Mr./Mrs./Ms)..... Surname.....  
 Address No.....Village No. ....TroK/Soi.....  
 Street.....Kwaeng/Tambol.....Khet/Amphur.....  
 Province..... Post code.....  
 Tel. ....Fax. ....  
 e-mail .....website .....

Signature of plot owner.....  
 (.....)

Signature of contact person or alternate .....  
 (.....)

Map of trial plot showing route for transportation and important neighboring landmarks  
to facilitate travel to trial plots

Location of trial plot No. .... Village No. .... Tambol.....  
Amphur..... Province.....



## Form for recording hazardous substance spraying

Trial No. ....../.....

Name of trial .....

No.	Date of spraying	Pesticide	Dose rate/20L water	Total volume/ trial area 1*	Spraying time	Temp.(°C)/ Humidity (%)			Rainfall (mm.)	Operator 2*	Inspector 3*
						Before spraying	During spraying	After spraying			

1\*. Total volume used for each spraying

2\* Operator signs every time of work in trial plot

3\* Inspector signs every time of inspection

## Form for recording yield harvesting

Trial No. ....../.....

Name of trial .....

No.	Date of harvesting	Conditions of trial plot*	No. of sample	Quantity of sample (Kg or Number of fruit)	Date sample arrives in analysis lab.	Condition of sample	Storage of sample during transportation	Name of recorder

Conditions of trial plot\* such as normal, damaged by disease (indicate disease and symptom), damaged by insect (indicate name of insect), spraying other pesticides (indicate trade name), and others.



## Form for recording residue trial/crop.....

1. Company name .....Address No. .... Street .....  
Tambol..... Amphur ..... Province .....
2. Date of trial starting .....  
Date of trial ending .....
3. Name of responsible person
  - 3.1 Trial planner .....
  - 3.2 Pesticide sprayer .....
  - 3.3 Sampler .....
  - 3.4 Analyst .....
4. Details on crop use in trial
  - 4.1 Crop.....
  - 4.2 Variety.....Age .....
5. Trial location .....Tambol.....Amphur.....  
Province.....
6. Details of pesticide use in trial
  - 6.1 Common name of active ingredient .....
  - 6.2 Trade name .....
  - 6.3 Use category ☐ insecticide ☐ fungicide  
☐ herbicide ☐ others .....
  - 6.4 formulation ☐ EC ☐ SC ☐ SL ☐ EW ☐ CS  
☐ DP ☐ GR ☐ WP ☐ WG ☐ SP ☐ others.....
  - 6.5 Concentration of active ingredient .....% W/V or .....% W/W
  - 6.6 Pest to be controlled .....
  - 6.7 Application in trial plot
    - 6.7.1 Dose rate (calculated in active ingredient) .....g a.i./rai
    - 6.7.2 Concentration (calculated in active ingredient) .....g a.i./20 L water
    - 6.7.3 Frequency of application .....day/application
    - 6.7.4 Type of sprayer ☐ High pressure ☐ Knap sack  
☐ Others .....
    - 6.7.5 Age of crop at first spraying .....days or...days after flowering (fruit)

Pesticide spraying	Date
1 st time	
2 nd time	
3 rd time	
4 <sup>th</sup> time	

## 6.8 Climatic conditions at last spraying

Duration	Climatic condition	Average Temp. .(°C)	% average humidity
96 hrs. before spraying			
During spraying			
After spraying until sample collection			

7. Details of trial plot
  - 7.1 Type of soil .....
  - 7.2 Condition of trial plot ☐ Upland ☐ Ditch and dike ☐ Others.....
  - 7.3 Type of fertilizer used ☐ Organic fertilizer used rate .....Kg/rai

- ☐ Compost used rate .....Kg/rai  
☐ Chemical fertilizer Ratio ..... used rate .....Kg/ra
- 7.4 Other pesticides used .....
- 7.5 Irrigation method ☐ Pouring ☐ Dripping ☐ Sprinkling ☐ Others .....
- 7.6 Frequency of irrigating ☐ Every day ☐ Every 3 days ☐ Every 7 days  
☐ Others.....

## 8. Information on trial plot

- 8.1 Plot dimension (width x length) .....m<sup>2</sup>  
8.2 Subplot dimension .....m<sup>2</sup>  
Canopy size (Fruit tree) .....m<sup>2</sup>  
8.3 Crop spacing Between crop .....m  
Between row .....m  
8.3 Number of subplot/treatment .....  
8.4 Number of control plot .....  
8.5 Number of plant/plot .....

## 9. Pesticide used history

- Insecticide.....  
Fungicide .....  
Herbicide .....  
Others .....

## 10. Sample collection

No.	Pre-harvest interval	Date	Climatic condition	Average temp.	% average humidity
1					
2					
3					
4					
5					
6					
7					

- 10.1 Part of plant to collect .....
- 10.2 Age of plant ..... days (vegetables, field crops, etc.)  
Days after flowering..... (Fruit tree)
- 10.3 Method of sample collection ☐ even distribution ☐ X or S ☐ Zoning
- 10.4 Number of sample/subplot .....
- 10.5 Number of fruits/tree ..... and weight/sample ..... Kg.

## 11. Date of sampling

Date of sampling							
Date of sample storing							
Date lab. receiving sample							

## 12. Duration (Days)

Last spraying-sampling							
Sampling-storing							
Sampling-lab. receiving							

Signature of experimenter.....  
(.....)  
Date.....

## Form for recording residue analysis

1. Laboratory .....  
Address .....  
.....  
.....
2. Analyst .....
3. Crop .....
4. Pesticides .....
5. Date lab. receive sample .....
6. Conditions of sample .....  
.....
7. Method for storing sample .....
8. Part of crop to be analyzed .....
9. Method of analysis .....  
.....  
.....
10. Effectiveness of analysis method

Concentration (mg/Kg)	% Recovery

- Limit of determination .....mg/Kg
11. Extraction method/eradication of contaminants .....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....
  12. Analysis apparatus .....  
Conditions for analysis .....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....
  - Analysis in term of.....
  13. Result of analysis at different time after the last spraying, expressed in mg/kg,  
report both treated and control sample ( 2 decimal points)

### Fruit tree plot

Sample	Tre	Rep	....day	...day	...day	...day	...day	...day	...day	...day	...days
Treated	1	1									
	2	1									
	3	1									
	4	1									
	5	2									
	6	2									
	7	2									
	8	2									
	9	3									
	10	3									
	11	3									
	12	3									
Control	1										
	2										
	3										
	4										

### Vegetable/field crop/others plot

Sample	Tree	Rep.	....days	...days	...days	...days	...days	...days	...days	...days	...days
Treated	1										
	2										
	3										
Control	1										
	2										
	3										

Signature of reporter.....

(.....)

Date .....

Form for residue trials report for registration  
Trial No.....

Title .....  
Experimenter .....  
Company .....

Abstract

.....  
.....  
.....  
.....

Introduction

.....  
.....  
.....  
.....

Objectives

.....  
.....  
.....  
.....

Method

.....  
.....  
.....  
.....

Instrument

.....  
.....  
.....  
.....

Method

.....  
.....  
.....  
.....

## Date and location

.....  
.....  
.....

.....  
.....  
.....

## Result

.....  
.....  
.....

## Conclusion

.....  
.....  
.....

## References

.....  
.....  
.....

## Annex (if any)

.....  
.....  
.....

## Statement to be put on the label

.....  
.....  
.....  
.....  
.....  
.....  
.....