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APPENDICES

Table A-1 The amount of leachate collected in **summer control (SC)** group.

Replication No.	Leachate sampling													
	1st			2nd				3rd			4th			
	13/9/06	14/9/06	15/9/06	16/9/06	17/9/06	18/9/06	19/9/06	20/9/06	21/9/06	22/9/06	23/9/06	24/9/06	25/9/06	26/9/06
SC 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 2	6	4	n	n	n	n	n	n	n	n	n	n	n	n
SC 3	5	30	15	n	15	15	15	15	15	15	n	15	15	15
SC 4	5	10	15	n	10	5	2	3	2	n	n	n	n	n
SC 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 6	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 8	3	5	2	n	n	n	n	n	n	n	n	n	n	n
SC 9	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 11	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 12	10	20	10	n	15	12	13	20	15	15	n	15	15	15
SC 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 14	n	n	n	n	n	n	n	n	n	n	n	n	n	n

SC refers to summer control n refers to no sample

Table A-1 Continued.

Replication No.	Leachate sampling													
	5th			6th				7th			8th			
	27/9/06	28/9/06	29/9/06	30/9/06	1/10/06	2/10/06	3/10/06	4/10/06	5/10/06	6/10/06	7/10/06	8/10/06	9/10/06	10/10/06
SC 1	n	5	n	n	n	n	n	n	n	n	n	n	n	n
SC 2	n	n	5	n	n	n	n	n	n	4	n	n	n	n
SC 3	20	5	25	20	15	15	n	15	10	10	n	n	10	15
SC 4	5	5	n	n	n	n	n	n	n	10	n	n	n	n
SC 5	5	n	2	n	n	n	n	n	n	4	n	n	n	n
SC 6	5	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 7	5	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 8	n	n	n	n	n	n	n	n	n	7.5	n	n	n	n
SC 9	n	n	n	n	n	n	n	n	n	n	n	n	5	5
SC 10	n	n	n	n	n	n	n	n	n	n	n	n	5	5
SC 11	n	n	n	n	n	n	n	n	n	n	n	n	5	5
SC 12	20	10	20	20	15	15	n	15	15	20	n	n	15	15
SC 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 14	n	n	n	n	n	n	n	n	n	8	n	n	n	n

SC refers to summer control

n refers to no sample

Table A-1 *Continued.*

Replication No.	Leachate sampling													
	9th							10th						
	11/10/06	12/10/06	13/10/06	14/10/06	15/10/06	16/10/06	17/10/06	18/10/06	19/10/06	20/10/06	21/10/06	22/10/06	23/10/06	24/10/06
SC 1	n	n	25	n	n	n	n	n	n	n	n	n	n	n
SC 2	n	n	2	n	n	n	2.5	n	n	n	n	n	n	n
SC 3	n	n	15	15	15	15	10	n	n	10	15	10	n	n
SC 4	n	n	5	n	n	2	5	n	n	1	2	2	n	n
SC 5	n	n	n	n	n	n	n	n	n	6	3	n	n	n
SC 6	n	n	5	n	n	n	4	n	n	n	n	n	n	n
SC 7	n	n	5	n	n	5	n	n	n	n	n	n	n	n
SC 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 9	n	n	n	n	n	n	5	n	n	n	n	5	n	n
SC 10	n	n	n	n	n	n	7	n	n	n	n	5	n	n
SC 11	n	n	n	n	n	n	n	n	n	10	n	n	n	n
SC 12	n	n	15	15	15	15	15	n	n	10	15	10	n	n
SC 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 14	n	n	n	n	n	n	n	n	n	n	n	n	n	n

SC refers to summer control

n refers to no sample

Table A-1 Continued.

Replication No.	Leachate sampling													
	11th							12th						
	25/10/06	26/10/06	27/10/06	28/10/06	29/10/06	30/10/06	31/10/06	1/11/06	2/11/06	3/11/06	4/11/06	5/11/06	6/11/06	7/11/06
SC 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 2	n	n	n	5	2	n	n	n	n	n	n	n	n	n
SC 3	20	20	20	20	20	20	n	n	n	n	10	10	n	n
SC 4	n	n	n	10	6	10	n	n	n	n	n	n	n	n
SC 5	n	n	n	5	2	n	n	n	n	n	n	n	n	n
SC 6	n	n	n	5	3	2	n	n	n	n	n	n	n	n
SC 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 9	n	n	n	5	3	2	n	n	n	n	n	n	n	n
SC 10	n	n	n	15	10	15	n	n	n	n	n	n	n	n
SC 11	n	n	n	15	10	n	n	n	n	n	n	n	n	n
SC 12	n	15	20	20	20	20	n	n	n	n	10	10	n	n
SC 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SC 14	n	n	n	n	n	n	n	n	n	n	n	n	n	n

SC refers to summer control n refers to no sample

Table A-2 The amount of leachate collected in **summer experiment (SE) group**.

Replication No.	Leachate sampling													
	1st			2nd				3rd			4th			
	13/9/06	14/9/06	15/9/06	16/9/06	17/9/06	18/9/06	19/9/06	20/9/06	21/9/06	22/9/06	23/9/06	24/9/06	25/9/06	26/9/06
SE 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 2	10	15	n	n	n	n	n	n	n	n	n	n	n	10
SE 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 6	15	15	15	n	15	15	15	15	15	15	n	15	5	5
SE 7	10	15	15	n	12	15	15	15	15	15	n	15	15	15
SE 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 9	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 11	5	25	15	n	15	15	15	15	10	n	n	5	n	5
SE 12	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 14	n	n	n	n	n	n	n	n	n	n	n	n	n	n

SE refers to summer experiment

n refers to no sample

Table A-2 Continued.

Replication No.	Leachate sampling													
	5th			6th				7th			8th			
	27/9/06	28/9/06	29/9/06	30/9/06	1/10/06	2/10/06	3/10/06	4/10/06	5/10/06	6/10/06	7/10/06	8/10/06	9/10/06	10/10/06
SE 1	n	n	5	n	n	n	n	n	n	n	n	n	n	n
SE 2	5	3	2	n	n	10	n	n	n	9	n	n	n	n
SE 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 4	n	n	n	n	n	n	n	n	n	15	n	n	n	n
SE 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 6	7	20	13	n	n	5	n	n	n	5	n	n	n	n
SE 7	20	10	20	20	20	10	n	7	17	10	n	n	5	5
SE 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 9	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 10	n	n	n	n	n	n	n	n	n	n	n	n	n	5
SE 11	20	20	20	n	n	5	n	n	n	5	n	n	n	n
SE 12	n	n	n	n	n	n	n	n	n	n	n	n	n	5
SE 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 14	n	n	n	n	n	n	n	n	n	n	n	n	n	n

SE refers to summer experiment

n refers to no sample

Table A-2 Continued.

Replication No.	Leachate sampling													
	9th							10th						
	11/10/06	12/10/06	13/10/06	14/10/06	15/10/06	16/10/06	17/10/06	18/10/06	19/10/06	20/10/06	21/10/06	22/10/06	23/10/06	24/10/06
SE 1	n	n	7	n	n	3	n	n	n	n	n	n	n	n
SE 2	n	n	5	n	n	n	3	n	n	5	2	n	n	n
SE 3	n	n	10	n	n	n	5	n	n	n	n	2.5	n	n
SE 4	n	n	7	n	n	n	3	n	n	n	n	n	n	n
SE 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 6	n	n	n	n	n	n	5	n	n	n	n	n	n	n
SE 7	n	n	10	n	n	10	5	n	n	5	n	5	n	n
SE 8	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 9	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 10	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 11	n	n	n	n	n	5	n	n	n	n	n	n	n	n
SE 12	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 14	n	n	n	n	n	n	n	n	n	n	n	n	n	n

SE refers to summer experiment

n refers to no sample

Table A-2 Continued.

Replication No.	Leachate sampling													
	11th							12th						
	25/10/06	26/10/06	27/10/06	28/10/06	29/10/06	30/10/06	31/10/06	1/11/06	2/11/06	3/11/06	4/11/06	5/11/06	6/11/06	7/11/06
SE 1	n	n	n	15	10	n	n	n	n	n	n	n	n	n
SE 2	n	n	n	5	n	n	n	n	n	n	n	n	n	n
SE 3	n	n	n	5	n	n	n	n	n	n	n	n	n	n
SE 4	n	n	n	5	2	3	n	n	n	n	n	n	n	n
SE 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 6	n	n	n	5	n	n	n	n	n	n	n	n	n	n
SE 7	n	n	n	10	10	5	n	n	n	n	n	n	n	n
SE 8	n	n	n	5	2	n	n	n	n	n	n	n	n	n
SE 9	n	n	n	5	n	n	n	n	n	n	n	n	n	n
SE 10	n	n	n	5	n	n	n	n	n	n	n	n	n	n
SE 11	n	n	n	5	5	n	n	n	n	n	n	10	n	n
SE 12	n	n	n	10	2	n	n	n	n	n	n	n	n	n
SE 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n
SE 14	n	n	n	n	n	n	n	n	n	n	n	n	n	n

SE refers to summer experiment

n refers to no sample

Table A-3 The amount of leachate collected in **rainy control (RC) group**.

Replication No.	Leachate sampling													
	1st			2nd				3rd			4th			
	13/9/06	14/9/06	15/9/06	16/9/06	17/9/06	18/9/06	19/9/06	20/9/06	21/9/06	22/9/06	23/9/06	24/9/06	25/9/06	26/9/06
RC 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 5	15	10	n	n	n	n	n	n	n	n	n	n	n	n
RC 6	30	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 7	30	10	n	n	n	n	n	n	n	n	n	n	n	n
RC 8	28	30	n	n	n	n	n	n	n	n	n	n	n	n
RC 9	22	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 10	22	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 11	30	30	n	n	n	n	n	n	n	n	n	n	n	n
RC 12	22	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 14	n	n	n	n	n	n	n	n	n	n	n	n	n	n

RC refers to rainy control

n refers to no sample

Table A-3 Continued.

Replication No.	Leachate sampling													
	5th			6th				7th			8th			
	27/9/06	28/9/06	29/9/06	30/9/06	1/10/06	2/10/06	3/10/06	4/10/06	5/10/06	6/10/06	7/10/06	8/10/06	9/10/06	10/10/06
RC 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 3	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 5	n	15	n	n	n	n	n	n	n	5	n	n	n	n
RC 6	n	5	5	n	n	n	n	n	n	5	n	n	n	n
RC 7	n	30	30	n	n	n	n	n	n	4	n	n	n	n
RC 8	n	15	5	n	n	n	n	n	n	5	n	n	n	n
RC 9	n	20	n	n	n	n	n	n	n	3	n	n	n	n
RC 10	n	n	n	n	n	n	n	n	n	7.5	n	n	n	n
RC 11	n	25	30	35	30	10	n	n	n	5	n	n	n	n
RC 12	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 14	n	n	n	n	n	n	n	n	n	n	n	n	n	10

RC refers to rainy control

n refers to no sample

Table A-3 Continued.

Replication No.	Leachate sampling													
	9th							10th						
	11/10/06	12/10/06	13/10/06	14/10/06	15/10/06	16/10/06	17/10/06	18/10/06	19/10/06	20/10/06	21/10/06	22/10/06	23/10/06	24/10/06
RC 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 3	n	n	20	n	n	n	n	n	n	n	n	n	n	n
RC 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 5	n	n	30	25	n	25	n	n	n	30	30	20	n	n
RC 6	n	n	30	n	n	n	n	n	n	n	n	n	n	n
RC 7	n	n	n	n	n	35	35	n	n	30	20	20	n	n
RC 8	n	n	n	n	30	30	25	n	n	25	20	20	n	n
RC 9	n	n	25	n	n	5	n	n	n	n	n	n	n	n
RC 10	n	n	25	n	n	n	n	n	n	n	n	n	n	n
RC 11	n	n	30	20	30	n	n	n	n	30	30	30	n	n
RC 12	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 13	7.5	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 14	7	n	n	n	n	5	n	n	n	n	n	n	n	n

RC refers to rainy control

n refers to no sample

Table A-3 Continued.

Replication No.	Leachate sampling													
	11th							12th						
	25/10/06	26/10/06	27/10/06	28/10/06	29/10/06	30/10/06	31/10/06	1/11/06	2/11/06	3/11/06	4/11/06	5/11/06	6/11/06	7/11/06
RC 1	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 3	n	n	n	5	n	2	n	n	n	n	n	n	n	n
RC 4	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 5	n	n	n	30	5	5	n	n	n	n	n	n	n	n
RC 6	n	n	n	10	n	n	n	n	n	n	n	1	n	n
RC 7	n	n	n	10	n	n	n	n	n	n	n	2	n	n
RC 8	n	n	n	30	30	30	n	n	n	n	30	20	n	n
RC 9	n	n	n	7.5	n	n	n	n	n	n	n	2	n	n
RC 10	n	n	n	5	n	n	n	n	n	n	n	n	n	n
RC 11	n	n	30	30	30	15	n	n	n	n	30	17	n	n
RC 12	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RC 14	n	n	n	n	n	n	n	n	n	n	n	n	n	n

RC refers to rainy control

n refers to no sample

Table A-4 The amount of leachate collected in **rainy experiment (RE) group**.

Replication No.	Leachate sampling													
	1st			2nd				3rd			4th			
	13/9/06	14/9/06	15/9/06	16/9/06	17/9/06	18/9/06	19/9/06	20/9/06	21/9/06	22/9/06	23/9/06	24/9/06	25/9/06	26/9/06
RE 1	40	20	15	n	n	n	n	n	n	n	n	n	n	n
RE 2	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RE 3	n	15	n	n	n	n	7	n	n	n	n	n	n	n
RE 4	40	30	35	n	30	40	40	35	30	30	n	35	35	35
RE 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RE 6	30	n	n	n	n	n	n	n	n	n	n	n	n	n
RE 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RE 8	15	n	n	n	n	n	n	n	15	n	n	n	n	5
RE 9	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RE 10	32	30	42	n	30	30	40	35	35	35	n	35	35	30
RE 11	30	30	45	n	30	35	40	35	20	n	n	5	5	n
RE 12	n	n	n	n	n	n	n	n	n	n	n	20	5	n
RE 13	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RE 14	n	n	n	n	n	n	n	n	n	n	n	n	n	n

RE refers to rainy experiment

n refers to no sample

Table A-4 Continued.

Replication No.	Leachate sampling													
	5th			6th				7th			8th			
	27/9/06	28/9/06	29/9/06	30/9/06	1/10/06	2/10/06	3/10/06	4/10/06	5/10/06	6/10/06	7/10/06	8/10/06	9/10/06	10/10/06
RE 1	n	n	10	n	n	n	n	n	n	n	n	n	n	n
RE 2	n	25	n	n	n	n	n	n	n	n	n	n	n	n
RE 3	n	n	10	n	n	n	n	n	n	n	n	n	n	n
RE 4	35	30	40	35	30	35	n	30	35	40	n	n	30	30
RE 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RE 6	n	n	n	n	n	n	n	n	n	5	n	n	n	n
RE 7	n	n	n	n	n	n	n	n	n	8	n	n	n	n
RE 8	n	n	n	n	n	5	n	n	n	2	n	n	n	n
RE 9	n	9	1	n	n	n	n	n	n	n	n	n	n	8
RE 10	40	35	45	35	30	25	n	40	40	40	n	n	35	35
RE 11	n	10	n	n	n	10	n	n	n	5	n	n	n	5
RE 12	15	5	n	n	n	n	n	n	n	16	n	n	n	n
RE 13	n	n	n	n	n	n	n	n	n	5	n	n	n	n
RE 14	n	n	n	n	n	n	n	n	n	5	n	n	n	n

RE refers to rainy experiment

n refers to no sample

Table A-4 Continued.

Replication No.	Leachate sampling													
	9 th							10 th						
	11/10/06	12/10/06	13/10/06	14/10/06	15/10/06	16/10/06	17/10/06	18/10/06	19/10/06	20/10/06	21/10/06	22/10/06	23/10/06	24/10/06
RE 1	n	n	n	n	N	n	n	n	n	n	n	n	n	n
RE 2	n	n	n	15	15	30	30	n	n	30	30	20	n	n
RE 3	n	n	25	25	25	25		n	n	40	20	20	n	n
RE 4	n	n	30	30	30	30	30	n	n	30	30	30	n	n
RE 5	n	n	n	n	N	n		n	n	n	n	n	n	n
RE 6	n	n	n	n	N	n	2.5	n	n	n	n	n	n	n
RE 7	n	n	n	n	N	n	n	n	n	n	n	n	n	n
RE 8	n	n	5	n	N	10	n	n	n	1	2	n	n	n
RE 9	n	n	n	n	N	n	n	n	n	n	n	n	n	n
RE 10	n	n	30	30	35	30	30	n	n	10	5	n	n	n
RE 11	n	n	7	n	N	7	7	n	n	5	5	5	n	n
RE 12	n	n	n	n	N	n	10	n	n	5	n	n	n	n
RE 13	n	n	n	n	N	n	n	n	n	n	n	n	n	n
RE 14	n	n	n	n	N	n	n	n	n	n	n	n	n	n

RE refers to rainy experiment

n refers to no sample

Table A-4 Continued.

Replication No.	Leachate sampling													
	11 th							12 th						
	25/10/06	26/10/06	27/10/06	28/10/06	29/10/06	30/10/06	31/10/06	1/11/06	2/11/06	3/11/06	4/11/06	5/11/06	6/11/06	7/11/06
RE 1	n	n	n	20	10	n	n	n	n	n	n	n	n	n
RE 2	n	n	30	30	30	15	n	n	n	n	30	30	n	n
RE 3	n	n	n	25	n	5	n	n	n	n	30	25	n	n
RE 4	40	40	40	40	40	40	n	n	n	n	30	20	n	n
RE 5	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RE 6	n	n	n	20	5	n	n	n	n	n	n	n	n	n
RE 7	n	n	n	n	n	n	n	n	n	n	n	n	n	n
RE 8	n	n	n	10	10	5	n	n	n	n	n	16	n	n
RE 9	n	n	30	30	30	30	n	n	n	n	30	15	n	n
RE 10	n	n	n	10	5	n	n	n	n	n	30	30	n	n
RE 11	n	n	n	10	5	10	n	n	n	n	30	30	n	n
RE 12	n	n	n	5	n	5	n	n	n	n	n	n	n	n
RE 13	n	n	n	15	15	n	n	n	n	n	n	n	n	n
RE 14	n	n	n	10	10	n	n	n	n	n	n	n	n	n

RE refers to rainy experiment

n refers to no sample

Table B-1 The amount of **glyphosate** in **summer control (SC) group** along monitoring period.

Column	Amount of glyphosate of each leachate sampling (mg)											
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th
SC 1	nd	0	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SC 2	27.3	0	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SC 3	30.15	18.54	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SC 4	35.7	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SC 5	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SC 6	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SC 7	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SC 8	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SC 9	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SC 10	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SC 11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SC 12	70	14.8	13.2	nd	nd	14	nd	nd	nd	nd	nd	nd
SC 13	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SC 14	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

SC refers to summer control nd refers to not detectable

Table B-2 The amount of **glyphosate** in **summer experiment (SE) group** along monitoring period.

Column	Amount of glyphosate of each leachate sampling (mg)											
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th
SE 1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SE 2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SE 3	33	nd	nd	2.94	0.49	40.7	nd	nd	nd	nd	nd	nd
SE 4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SE 5	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SE 6	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SE 7	1084.5	400.5	274.5	119	0	14.5	5.95	0	1.3	nd	nd	nd
SE 8	2232	638.4	308.25	234	269	279	40.12	5.4	23.75	9.1	nd	nd
SE 9	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SE 10	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SE 11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SE 12	1003.5	522	215	26.4	0	12.75	16.6	0	5.95	0	10.8	15.8
SE 13	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
SE 14	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

SE refers to summer experimentl

nd refers to not detectable

Table B-3 The amount of **glyphosate** in **rainy control (RC) group** along monitoring period.

Column	Amount of glyphosate of each leachate sampling (mg)											
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th
RC 1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
RC 2	34.25	nd	nd	nd	0.8955	nd	nd	nd	nd	nd	nd	nd
RC 3	46.2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
RC 4	81.2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
RC 5	49.88	nd	nd	nd	nd	nd	1.9	nd	nd	nd	nd	nd
RC 6	68.42	nd	nd	nd	12.9	nd	nd	nd	nd	nd	nd	nd
RC 7	36.08	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
RC 8	94.8	nd	nd	nd	14.795	14.4	0.97	nd	nd	nd	nd	nd
RC 9	47.52	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
RC 10	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
RC 11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
RC 12	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
RC 13	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
RC 14	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd

RC refers to rainy control

nd refers to not detectable

Table B-4 The amount of **glyphosate** in **rainy experiment (RE)** group along monitoring period.

Column	Amount of glyphosate of each leachate sampling (mg)											
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th
RE 1	1971	nd	nd	nd	nd	nd	78		1.925	nd	nd	nd
RE 2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
RE 3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
RE 4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
RE 5	1375.5	nd	172.5	24.6	nd	10.7	4.2	nd	14.55	0.81	22.5	9.92
RE 6	nd	nd	nd	nd	4.9	nd	nd	nd	nd	nd	146.4	26.1
RE 7	2017.6	1175	903	1186	1064.4	657.9	511.2	99.4	139.5	5.85	0	26.4
RE 8	2814	3701.25	935	26	21	24.5	5.24	0.835	12.81	14.7	16.5	356.4
RE 9	nd	nd	nd	nd	0	nd	0	0	0	0	nd	nd
RE 10	nd	nd	nd	nd	20.6	nd	4.16	0	1.6	1.4	nd	nd
RE 11	1612.5	nd	nd	nd	17.9	nd	nd	nd	0	0	nd	nd
RE 12	0	nd	nd	nd	0	nd	nd	nd	88.2	58.4	nd	nd
RE 13	186	23.24	nd	nd	1.13	nd	nd	nd	214	286.4	nd	nd
RE 14	1326.15	407	206.15	168	97.44	101	47.25	10.8	55.5	29.7	nd	nd

RE refers to rainy experiment

nd refers to not detectable

Table C-1 The amount of **glyphosate** in leachate of the **control groups** along the monitoring period.

Group	Replicate number	Week 1 (mg)		Week 2 (mg)		Week 3 (mg)		Week 4 (mg)		Week 5 (mg)	Week 6 (mg)	Week 7 (mg)	Week 8 (mg)
		1 st	2 nd	1 st	2 nd	1 st	2 nd	1 st	2 nd				
SC	Replicate 1	0.03	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	Replicate 2	0.03	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	Replicate 3	0.04	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	Mean	0.03	-	-	-	-	-	-	-	-	-	-	-
		± 0.01	-	-	-	-	-	-	-	-	-	-	-
	% RSD	33.33	-	-	-	-	-	-	-	-	-	-	-
RC	Replicate 1	0.05	n	n	n	n	n	nd	n	0.03	n	0.02	n
	Replicate 2	0.07	n	n	n	0.01	n	nd	n	nd	n	n	n
	Replicate 3	0.05	n	n	n	n	n	n	n	n	n	n	n
	Mean	0.06	-	-	-	-	-	-	-	-	-	-	-
		± 0.01	-	-	-	-	-	-	-	-	-	-	-
	% RSD	16.67	-	-	-	-	-	-	-	-	-	-	-

nd refers to not detectable

n refers to no data

Table C-2. The amount of **glyphosate** in leachate of the **experiment groups** along the monitoring period.

Group	Replicate number	Week 1		Week 2		Week 3		Week 4		Week 5	Week 6	Week 7	Week 8
		(mg)		(mg)		(mg)		(mg)					
		1 st	2 nd	1 st	2 nd	1 st	2 nd	1 st	2 nd				
SE	Replicate 1	1.08	0.40	0.27	0.12	nd	0.01	0.01	nd	nd	nd	nd	nd
	Replicate 2	1.57	0.57	0.29	0.17	0.12	0.09	0.04	0.01	0.02	0.01	nd	nd
	Replicate 3	1.00	0.52	0.22	0.03	nd	0.01	0.02	nd	0.01	nd	0.01	0.02
	Mean	1.22	0.50	0.26	0.11		0.04	0.02		0.01			
		± 0.31	± 0.09	± 0.04	± 0.07	-	± 0.05	± 0.02	-	± 0.01	-	-	-
	% RSD	25.41	18.00	15.38	63.64	-	125.00	100.00	-	100.00	-	-	-
RE	Replicate 1	1.53	1.18	0.90	1.19	0.82	0.66	0.08	0.07	0.04	0.01	nd	nd
	Replicate 2	1.78	1.32	0.94	0.76	0.65	0.54	0.04	0.03	0.01	nd	nd	nd
	Replicate 3	1.33	1.15	1.09	0.88	0.73	0.44	0.05	0.01	0.00	nd	nd	nd
	Mean	1.55	1.22	0.98	0.94	0.73	0.55	0.06	0.04	0.02			
		± 0.23	± 0.09	± 0.10	± 0.22	± 0.09	± 0.11	± 0.02	± 0.03	± 0.02	-	-	-
	% RSD	14.84	7.38	10.20	23.40	12.32	20.00	33.33	75.00	100.00	-	-	-

nd refers to not detectable

Table C-3 The amount of AMPA in the leachate of the **control groups** along the monitoring period.

Group	Replicate number	Week 1		Week 2		Week 3		Week 4		Week 5	Week 6	Week 7	Week 8
		(mg)		(mg)		(mg)		(mg)					
		no.1	no.2	no.1	no.2	no.1	no.2	no.1	no.2				
SC	Replicate 1	0.02	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	Replicate 2	0.11	0.18	0.07	0.10	0.08	0.06	0.04	0.01	0.03	0.01	nd	nd
	Replicate 3	0.04	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
	Mean	0.06	-	-	-	-	-	-	-	-	-	-	-
		± 0.05	-	-	-	-	-	-	-	-	-	-	-
	% RSD	83.33	-	-	-	-	-	-	-	-	-	-	-
RC	Replicate 1	nd	n	n	n	n	n	0.01	n	0.03	0.07	0.11	0.06
	Replicate 2	nd	n	n	n	0.05	n	nd	n	0.01	n	nd	0.00
	Replicate 3	0.01	n	n	n	n	n	n	n	n	n	nd	n
	Mean	-	-	-	-	-	-	-	-	-	-	-	-
	% RSD	-	-	-	-	-	-	-	-	-	-	-	-

nd refers to not detectable

n refers to no data

Table C-4 The amount of AMPA in the leachate of the **experiment groups** along the monitoring period.

Group	Replicate number	Week 1		Week 2		Week 3		Week 4		Week 5	Week 6	Week 7	Week 8
		(mg)		(mg)		(mg)		(mg)					
		no.1	no.2	no.1	no.2	no.1	no.2	no.1	no.2				
SE	Replicate 1	0.87	0.44	0.41	0.22	nd	0.01	0.01	nd	nd	nd	nd	nd
	Replicate 2	0.99	0.46	0.39	0.29	0.26	0.24	0.07	0.01	nd	nd	nd	nd
	Replicate 3	nd	0.63	0.25	0.04	nd	0.04	0.02	nd	0.01	nd	nd	nd
	Mean		0.51	0.35	0.18	0.09	0.10	0.03	-	-	-	-	-
	% RSD		± 0.10	± 0.09	± 0.13	± 0.15	± 0.13	± 0.03	-	-	-	-	-
RE	Replicate 1	0.70	nd	0.11	0.02	nd	0.01	nd	nd	0.01	nd	0.05	0.02
	Replicate 2	1.35	1.11	0.41	0.04	0.03	0.02	0.01	nd	0.02	0.02	0.02	0.18
	Replicate 3	0.23	0.13	0.11	0.11	0.07	0.11	0.07	0.03	0.07	0.04	0.12	0.01
	Mean	0.76	0.41	0.21	0.06	0.03	0.05	0.03	0.01	0.03	0.02	0.06	0.07
	% RSD	± 0.56	± 0.61	± 0.17	± 0.05	± 0.04	± 0.06	± 0.04	± 0.02	± 0.03	± 0.02	± 0.05	± 0.10
	% RSD	73.68	148.78	80.95	83.33	133.33	120.00	133.33	200.00	100.00	100.00	83.33	142.85

nd refers to not detectable

Table D Summarization of rainfall data in the central part of Thailand during 1996-2005.

No.	Station	The amount of rainfall (mm) ^a											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Nakorn Sawan	3.32	16.45	42.86	67.99	156.62	153.18	142.70	156.02	241.88	119.88	26.81	6.79
2	Suphan Buri	5.01	11.19	34.66	79.77	116.52	91.64	112.86	116.54	248.22	183.84	59.33	7.06
3	Lop Buri 1	13.77	6.46	33.28	96.13	145.18	97.26	120.12	144.25	249.02	132.16	48.75	7.60
4	Lop Buri 2	4.75	16.61	32.52	84.27	133.05	122.42	99.28	153.61	244.80	103.98	26.69	1.90
5	Samut Prakan	12.44	23.29	34.34	57.58	125.15	120.00	81.08	98.33	220.00	196.19	29.13	6.78
6	Kanchana Buri 1	3.38	17.15	38.11	98.19	137.07	96.27	96.32	97.63	218.11	200.71	54.58	5.22
7	Kanchana Buri 2	6.64	10.91	48.68	102.69	241.62	229.39	362.26	339.67	255.02	155.63	29.92	3.80
8	Bangkok 1	14.00	31.51	50.09	101.54	232.53	143.20	161.54	199.88	320.56	262.61	60.03	9.64
9	Bangkok: Klong Toey	17.65	43.01	54.01	99.73	217.36	153.57	172.39	188.65	323.08	283.05	58.22	14.18
10	Bangkok: Don maung	10.44	14.49	51.80	105.34	233.29	182.99	156.28	171.63	296.39	164.67	39.44	3.13
Average the total amount of rainfall precipitate in central part of Thailand		9.14	19.11	42.03	89.32	173.84	138.99	150.48	166.62	261.71	180.27	43.29	6.61

^a Values provided by the Thai Meteorological Department.

BIOGRAPHY

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