APPENDICES

APPENDIX A

Results of Factor analysis (in model: Factors affecting Lead (Pb) accumulation in vegetables) using SPSS version 16

Descriptive Statistics

	Mean	Std. Deviation	Analysis N
AGE (X1)	45.69	8.049	75
EDU (X2)	7.91	1.825	75
FARM_SIZE (X3)	4.33	1.266	75
TOTAL_AREA (X4)	934.81	668.706	75
AREA_FIELD (X5)	271.20	230.887	75
EXP (X6)	21.47	8.059	75
N_SOURCE (X7)	1.25	.496	75
USE_POND (X8)	.77	.421	75
AMOUNT_WATER (X9)	1.91319	.428129	75
TIME_WATER (X10)	1.193	.5383	75
F_SAFE_P (X11)	.76	.430	75
UNDERSTAND_HM (X12)	.85	.356	75
PB_IN_SOIL (X13)	65.4964	21.41232	75
PB_IN_WATER (X14)	.03083	.021196	75

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.627
Bartlett's Test of Sphericity	Approx. Chi-Square	237.288
	df	91
	Sig.	.000

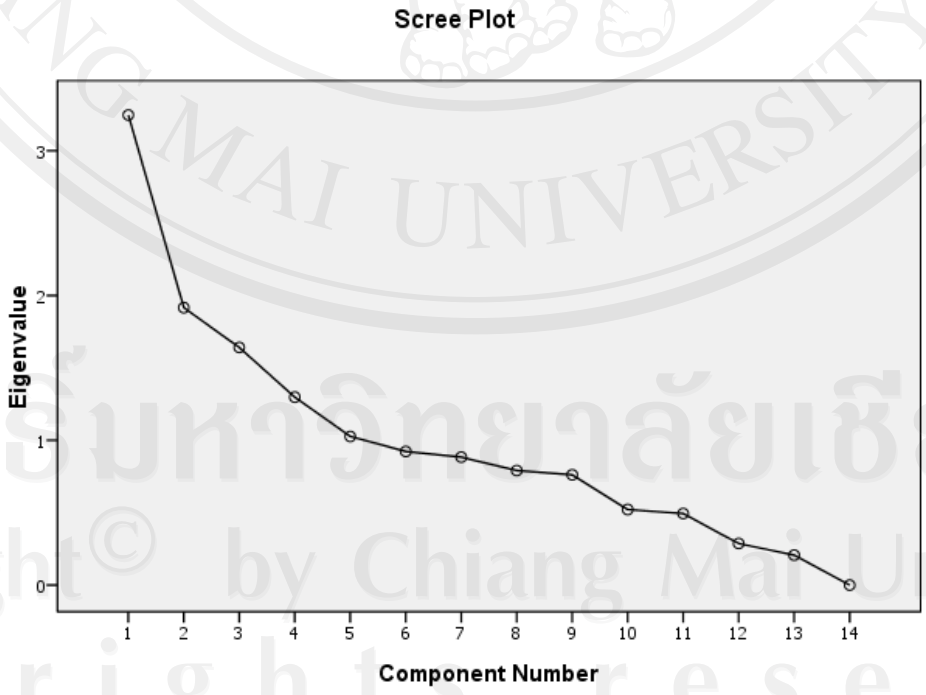
Correlation Matrix

Correlation	AGE (X1)	EDU (X2)	FARM SIZE (X3)	TOTAL _AREA (X4)	AREA FIELD (X5)	EXP (X6)	N_ SOURCE (X7)	USE_ POND (X8)	AMOUNT _WATER (X9)	TIME_ WATER (X10)	F_SAFE P (X11)	UNDERSTAND _HM (X12)	PB_IN SOIL (X13)	PB_IN WATER (X14)
AGE (X1)	1.000	-.319	.027	-.149	-.031	.504	.108	-.053	-.016	.020	-.025	-.021	-.068	-.058
EDU (X2)	-.319	1.000	-.039	.085	.074	-.215	-.138	.165	-.063	-.140	.092	.124	.019	-.006
FARM_SIZE (X3)	.027	-.039	1.000	.332	.218	-.038	.014	.093	-.012	.261	.074	-.130	.103	.089
TOTAL_AREA (X4)	-.149	.085	.332	1.000	.607	-.092	.048	-.186	.039	.279	.099	-.006	.124	.283
AREA_FIELD (X5)	-.031	.074	.218	.607	1.000	-.121	.235	-.196	-.086	.325	.287	.051	.063	.321
EXP (X6)	.504	-.215	-.038	-.092	-.121	1.000	-.037	-.048	.076	-.147	-.154	.071	-.083	-.052
N_SOURCE (X7)	.108	-.138	.014	.048	.235	-.037	1.000	-.174	.021	.219	.162	.137	.197	.341
USE_POND (X8)	-.053	.165	.093	-.186	-.196	-.048	-.174	1.000	-.106	-.162	.069	-.134	-.245	-.498
AMOUNT_WATER (X9)	-.016	-.063	-.012	.039	-.086	.076	.021	-.106	1.000	.387	-.207	-.103	.479	.383
TIME_WATER (X10)	.020	-.140	.261	.279	.325	-.147	.219	-.162	.387	1.000	.057	.115	.488	.416
F_SAFE_P (X11)	-.025	.092	.074	.099	.287	-.154	.162	.069	-.207	.057	1.000	.120	.081	-.025
UNDERSTAND_HM (X12)	-.021	.124	-.130	-.006	.051	.071	.137	-.134	-.103	.115	.120	1.000	.097	.109
PB_IN_SOIL (X13)	-.068	.019	.103	.124	.063	-.083	.197	-.245	.479	.488	.081	.097	1.000	.494
PB_IN_WATER (X14)	-.058	-.006	.089	.283	.321	-.052	.341	-.498	.383	.416	-.025	.109	.494	1.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.016	21.541	21.541	3.016	21.541	21.541	2.330	16.644	16.644
2	1.951	13.933	35.474	1.951	13.933	35.474	2.019	14.424	31.068
3	1.580	11.288	46.761	1.580	11.288	46.761	1.781	12.719	43.788
4	1.377	9.832	56.593	1.377	9.832	56.593	1.447	10.334	54.122
5	1.099	7.853	64.446	1.099	7.853	64.446	1.445	10.324	64.446
6	.979	6.990	71.436						
7	.768	5.485	76.921						
8	.716	5.114	82.036						
9	.655	4.679	86.715						
10	.520	3.711	90.426						
11	.398	2.841	93.267						
12	.344	2.457	95.724						
13	.327	2.338	98.062						
14	.271	1.938	100.000						

Extraction Method: Principal Component Analysis.



Communalities

	Initial	Extraction
AGE (X1)	1.000	.709
EDU (X2)	1.000	.468
FARM_SIZE (X3)	1.000	.611
TOTAL_AREA (X4)	1.000	.764
AREA_FIELD (X5)	1.000	.756
EXP (X6)	1.000	.584
N_SOURCE (X7)	1.000	.505
USE_POND (X8)	1.000	.697
AMOUNT_WATER (X9)	1.000	.715
TIME_WATER (X10)	1.000	.661
F_SAFE_P (X11)	1.000	.646
UNDERSTAND_HM (X12)	1.000	.479
PB_IN_SOIL (X13)	1.000	.702
PB_IN_WATER (X14)	1.000	.724

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component				
	1	2	3	4	5
PB_IN_WATER (X14)	.786				
TIME_WATER (X10)	.728				
PB_IN_SOIL (X13)	.664				
AREA_FIELD (X5)	.578	.425	.453		
TOTAL_AREA (X4)	.558	.401			
N_SOURCE (X7)	.430				
EXP (X6)		-.601	.412		
EDU (X2)		.539			
AGE (X1)		-.578	.585		
AMOUNT_WATER (X9)	.434	-.453	-.501		
UNDERSTAND_HM (X12)				-.669	
FARM_SIZE (X3)				.609	
USE_POND (X8)	-.489				.520
F_SAFE_P (X11)		.436			.507

Extraction Method: Principal Component Analysis.

a. 5 components extracted.

Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
PB_IN_SOIL (X13)	.812				
AMOUNT_WATER (X9)	.777				
TIME_WATER (X10)	.717				
PB_IN_WATER (X14)	.603			.515	
TOTAL_AREA (X4)		.846			
AREA_FIELD (X5)		.801			
FARM_SIZE (X3)		.582		-.473	
AGE (X1)			.830		
EXP (X6)			.716		
EDU (X2)			-.669		
USE_POND (X8)				-.772	
F_SAFE_P (X11)					.728
N_SOURCE (X7)					.602
UNDERSTAND_HM (X12)				.416	.521

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 10 iterations.

Component Transformation Matrix

Component	1	2	3	4	5
1	.727	.556	-.056	.311	.248
2	-.364	.443	-.743	-.257	.230
3	-.446	.487	.639	-.026	.392
4	.179	.407	.174	-.616	-.627
5	.327	-.302	.073	-.676	.582

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Component Score Coefficient Matrix

	Component				
	1	2	3	4	5
AGE (X1)	-.028	.012	.476	-.062	.117
EDU (X2)	-.065	-.022	-.381	.079	-.001
FARM_SIZE (X3)	.090	.315	.108	-.391	-.062
TOTAL_AREA (X4)	-.089	.463	-.046	.103	-.171
AREA_FIELD (X5)	-.120	.405	.002	.098	.094
EXP (X6)	-.084	.011	.394	.129	-.078
N_SOURCE (X7)	.088	-.055	.118	.033	.423
USE_POND (X8)	.050	-.099	-.054	-.550	.102
AMOUNT_WATER (X9)	.389	-.125	.000	-.052	-.213
TIME_WATER (X10)	.320	.069	.043	-.173	.109
F_SAFE_P (X11)	-.020	.008	-.039	-.238	.535
UNDERSTAND_HM (X12)	-.061	-.156	-.062	.278	.365
PB_IN_SOIL (X13)	.384	-.126	-.062	-.056	.101
PB_IN_WATER (X14)	.182	.075	-.026	.291	-.023

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Component Scores.

Component Score Covariance Matrix

Component	1	2	3	4	5
1	1.000	.000	.000	.000	.000
2	.000	1.000	.000	.000	.000
3	.000	.000	1.000	.000	.000
4	.000	.000	.000	1.000	.000
5	.000	.000	.000	.000	1.000

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Component Scores.

Result of Multiple regression (in model: Factors affecting Lead (Pb) accumulation in vegetables) using Limdep software (2003)

```
--> REGRESS;Lhs=PB_IN_VE;Rhs=ONE,FSC1,FSC2,FSC3,FSC4,FSC5;Ar1;Alg=C$

+----------------------------------------------------+
| Ordinary    least squares regression               |
| Model was estimated Apr 08, 2011 at 02:12:32PM     |
| LHS=PB_IN_VE Mean                 =   1.562133     |
|              Standard deviation   =   .8103141     |
| WTS=none     Number of observs.   =         75     |
| Model size   Parameters           =          6     |
|              Degrees of freedom   =         69     |
| Residuals    Sum of squares       =   13.27494     |
|              Standard error of e  =   .4386234    |
| Fit          R-squared            =   .7267915     |
|              Adjusted R-squared   =   .7069938     |
| Model test   F[  5,    69] (prob) =  36.71 (.0000)  |
| Diagnostic   Log likelihood       =  -41.48503     |
|              Restricted(b=0)      =  -90.14203     |
|              Chi-sq [  5]  (prob) =  97.31 (.0000)  |
| Info criter. LogAmemiya Prd. Crt. =  -1.571267     |
|              Akaike Info. Criter. =  -1.571610     |
| Autocorrel   Durbin-Watson Stat.  =  1.3431762     |
|              Rho = cor[e,e(-1)]   =   .3284119     |
+----------------------------------------------------+
+---------+----------+---------------+--------+---------+----------+
|Variable |Coefficient| Standard Error |t-ratio |P[|T|>t] |Mean of X|
+---------+----------+---------------+--------+---------+----------+
 Constant   1.56213333      .05064787    30.843   .0000
 FSC1        .68200185      .05098894    13.375   .0000   .450010D-15
 FSC2        .01211526      .05098894      .238   .8129   .343522D-15
 FSC3        .00607623      .05098894      .119   .9055  -.358232D-15
 FSC4        .10909936      .05098894     2.140   .0359  -.378956D-15
 FSC5        .00220574      .05098894      .043   .9656  -.318264D-15

+--------------------------------------------+
| AR(1) Model:     e(t) = rho * e(t-1) + u(t) |
| Initial value of rho        =       .32841 |
| Maximum iterations          =          100 |
| Method = Cochrane - Orcutt                 |
| Iter=  1, SS=     11.137, Log-L= -34.957356|
| Iter=  2, SS=     11.137, Log-L= -34.979561|
| Iter=  3, SS=     11.142, Log-L= -35.000035|
| Final value of Rho    =           .391475  |
| Iter=  3, SS=     11.142, Log-L= -35.000035|
| Durbin-Watson:   e(t) =          1.217050  |
| Std. Deviation:  e(t) =           .439900  |
| Std. Deviation:  u(t) =           .404791  |
| Durbin-Watson:   u(t) =          2.192403  |
| Autocorrelation: u(t) =          -.096201  |
| N[0,1] used for significance levels        |
+--------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
Constant	1.54027443	.07727209	19.933	.0000	
FSC1	.63671542	.05077754	12.539	.0000	.513478D-15
FSC2	.05327195	.05031282	1.059	.2897	.274249D-15
FSC3	.02245454	.04269815	.526	.5990	-.343475D-15
FSC4	.06584843	.04822658	1.365	.1721	-.367761D-15
FSC5	.00665708	.04781441	.139	.8893	-.307913D-15
RHO	.39147482	.10696978	3.660	.0003	

```
--> DSTAT;Rhs=FSC1,FSC2,FSC3,FSC4,FSC5,PB_IN_VE;Output=2$
```

Descriptive Statistics
All results based on nonmissing observations.

Variable	Mean	Std.Dev.	Minimum	Maximum	Cases
FSC1	.450010399E-15	1.00000000	-1.93546991	3.09684311	75
FSC2	.343521508E-15	1.00000000	-1.53658839	4.74431265	75
FSC3	-.358231963E-15	1.00000000	-2.04694592	2.21188560	75
FSC4	-.378956126E-15	1.00000000	-1.94058690	2.50887675	75
FSC5	-.318263934E-15	1.00000000	-2.71599457	2.59330599	75
PB_IN_VE	1.56213333	.810314075	.230000000	4.06000000	75

Correlation Matrix for Listed Variables

	FSC1	FSC2	FSC3	FSC4	FSC5	PB_IN_VE
FSC1	1.00000	.00000	.00000	.00000	.00000	.84165
FSC2	.00000	1.00000	.00000	.00000	.00000	.01495
FSC3	.00000	.00000	1.00000	.00000	.00000	.00750
FSC4	.00000	.00000	.00000	1.00000	.00000	.13464
FSC5	.00000	.00000	.00000	.00000	1.00000	.00272
PB_IN_VE	.84165	.01495	.00750	.13464	.00272	1.00000

APPENDIX B

Results of Factor analysis (in model: Factors affecting Lead (Pb) accumulation in cultivated soil) using SPSS version 16

Descriptive Statistics

	Mean	Std. Deviation	Analysis N
AGE (X1)	45.69	8.049	75
EDU (X2)	7.91	1.825	75
FARM_SIZE (X3)	4.33	1.266	75
TOTAL_AREA (X4)	934.81	668.706	75
AREA_FIELD (X5)	271.20	230.887	75
EXP (X6)	21.47	8.059	75
N_SOURCE (X7)	1.25	.496	75
USE_POND (X8)	.77	.421	75
AMOUNT_WATER (X9)	1.91319	.428129	75
TIME_WATER (X10)	1.193	.5383	75
F_SAFE_P (X11)	.76	.430	75
UNDERSTAND_HM (X12)	.85	.356	75
PB_IN_WATER (X13)	.03083	.021196	75

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.582
Bartlett's Test of Sphericity	Approx. Chi-Square	196.944
	Df	78
	Sig.	.000

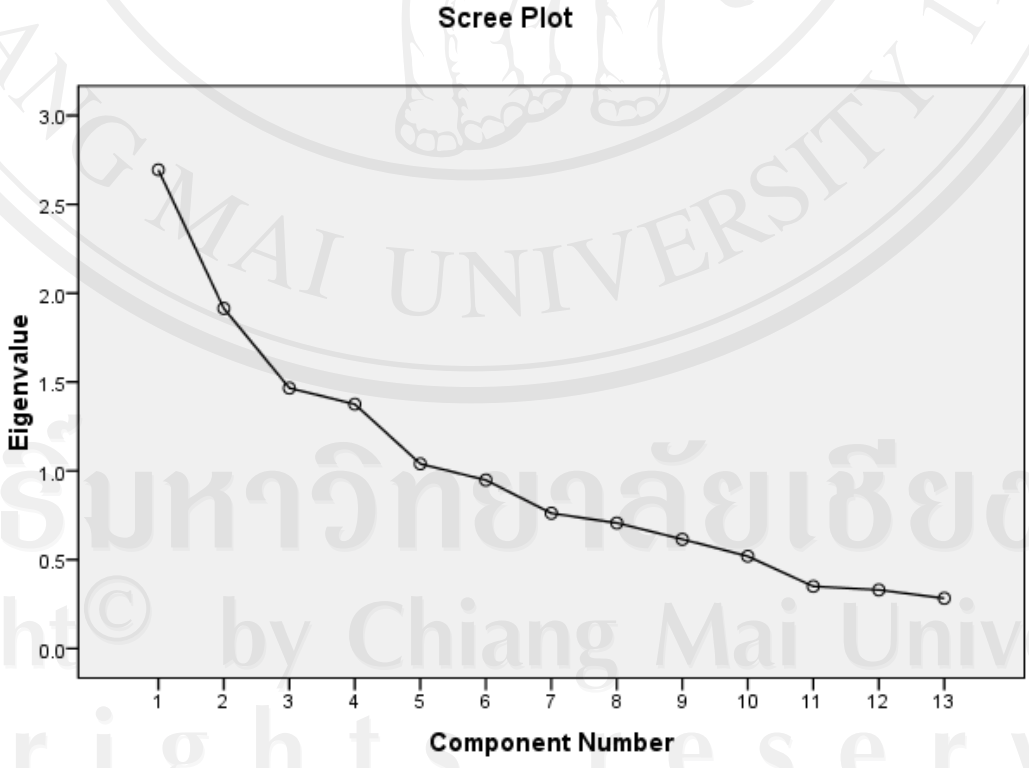
Correlation Matrix

Correlation	AGE (X1)	EDU (X2)	FARM SIZE (X3)	TOTAL _AREA (X4)	AREA FIELD (X5)	EXP (X6)	N_SOURCE (X7)	USE_ POND (X8)	AMOUNT _WATER (X9)	TIME_ WATER (X10)	F_SAFE P (X11)	UNDERSTAND _HM (X12)	PB_IN WATER (X13)
AGE (X1)	1.000	-.319	.027	-.149	-.031	.504	.108	-.053	-.016	.020	-.025	-.021	-.058
EDU (X2)	-.319	1.000	-.039	.085	.074	-.215	-.138	.165	-.063	-.140	.092	.124	-.006
FARM_SIZE (X3)	.027	-.039	1.000	.332	.218	-.038	.014	.093	-.012	.261	.074	-.130	.089
TOTAL_AREA (X4)	-.149	.085	.332	1.000	.607	-.092	.048	-.186	.039	.279	.099	-.006	.283
AREA_FIELD (X5)	-.031	.074	.218	.607	1.000	-.121	.235	-.196	-.086	.325	.287	.051	.321
EXP (X6)	.504	-.215	-.038	-.092	-.121	1.000	-.037	-.048	.076	-.147	-.154	.071	-.052
N_SOURCE (X7)	.108	-.138	.014	.048	.235	-.037	1.000	-.174	.021	.219	.162	.137	.341
USE_POND (X8)	-.053	.165	.093	-.186	-.196	-.048	-.174	1.000	-.106	-.162	.069	-.134	-.498
AMOUNT_WATER (X9)	-.016	-.063	-.012	.039	-.086	.076	.021	-.106	1.000	.387	-.207	-.103	.383
TIME_WATER (X10)	.020	-.140	.261	.279	.325	-.147	.219	-.162	.387	1.000	.057	.115	.416
F_SAFE_P (X11)	-.025	.092	.074	.099	.287	-.154	.162	.069	-.207	.057	1.000	.120	-.025
UNDERSTAND_HM (X12)	-.021	.124	-.130	-.006	.051	.071	.137	-.134	-.103	.115	.120	1.000	.109
PB_IN_WATER (X13)	-.058	-.006	.089	.283	.321	-.052	.341	-.498	.383	.416	-.025	.109	1.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.694	20.725	20.725	2.694	20.725	20.725	1.984	15.262	15.262
2	1.914	14.726	35.452	1.914	14.726	35.452	1.958	15.061	30.322
3	1.466	11.275	46.727	1.466	11.275	46.727	1.764	13.569	43.891
4	1.375	10.577	57.304	1.375	10.577	57.304	1.408	10.832	54.723
5	1.040	7.996	65.300	1.040	7.996	65.300	1.375	10.578	65.300
6	.948	7.291	72.592						
7	.761	5.856	78.448						
8	.706	5.434	83.882						
9	.615	4.728	88.610						
10	.519	3.993	92.603						
11	.350	2.689	95.291						
12	.330	2.536	97.828						
13	.282	2.172	100.000						

Extraction Method: Principal Component Analysis.



Communalities

	Initial	Extraction
AGE (X1)	1.000	.719
EDU (X2)	1.000	.529
FARM_SIZE (X3)	1.000	.604
TOTAL_AREA (X4)	1.000	.783
AREA_FIELD (X5)	1.000	.737
EXP (X6)	1.000	.706
N_SOURCE (X7)	1.000	.628
USE_POND (X8)	1.000	.620
AMOUNT_WATER (X9)	1.000	.686
TIME_WATER (X10)	1.000	.647
F_SAFE_P (X11)	1.000	.612
UNDERSTAND_HM (X12)	1.000	.487
PB_IN_WATER (X13)	1.000	.732

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component				
	1	2	3	4	5
PB_IN_WATER (X13)	.743				
AREA_FIELD (X5)	.706				
TIME_WATER (X10)	.685				
TOTAL_AREA (X4)	.658				-.416
USE_POND (X8)	-.481				
AGE (X1)		.644	.529		
EXP (X6)		.637			
EDU (X2)		-.601			
AMOUNT_WATER (X9)		.403	-.612		
F_SAFE_P (X11)			.506		
UNDERSTAND_HM (X12)				-.655	
FARM_SIZE (X3)				.638	
N_SOURCE (X7)	.442				.460

Extraction Method: Principal Component Analysis.

a. 5 components extracted.

Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
TOTAL_AREA (X4)	.866				
AREA_FIELD (X5)	.791				
FARM_SIZE (X3)	.555			-.517	
AMOUNT_WATER (X9)		.777			
TIME_WATER (X10)		.687			
PB_IN_WATER (X13)		.678		.417	
AGE (X1)			.841		
EXP (X6)			.754		
EDU (X2)			-.628		
USE_POND (X8)				-.642	
UNDERSTAND_HM (X12)				.635	
F_SAFE_P (X11)					.704
N_SOURCE (X7)					.668

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

Component Transformation Matrix

Component	1	2	3	4	5
1	.688	.606	-.080	.240	.308
2	-.279	.438	.811	.199	-.181
3	.342	-.568	.545	-.022	.513
4	.356	.124	.187	-.843	-.334
5	-.452	.320	-.064	-.438	.705

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Component Score Coefficient Matrix

	Component				
	1	2	3	4	5
AGE (X1)	.038	-.072	.489	-.018	.078
EDU (X2)	.094	-.160	-.348	.177	-.163
FARM_SIZE (X3)	.302	.029	.098	-.405	.021
TOTAL_AREA (X4)	.495	-.069	-.021	.026	-.204
AREA_FIELD (X5)	.403	-.095	.018	.078	.081
EXP (X6)	.118	-.140	.434	.160	-.236
N_SOURCE (X7)	-.151	.159	.082	.079	.515
USE_POND (X8)	-.112	-.087	-.073	-.448	.171
AMOUNT_WATER (X9)	-.141	.461	-.048	-.105	-.162
TIME_WATER (X10)	.021	.359	-.005	-.162	.196
F_SAFE_P (X11)	.023	-.154	-.033	-.050	.521
UNDERSTAND_HM (X12)	-.046	-.120	-.034	.462	.149
PB_IN_WATER (X13)	.064	.299	-.043	.235	-.032

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Component Scores.

Component Score Covariance Matrix

Component	1	2	3	4	5
1	1.000	.000	.000	.000	.000
2	.000	1.000	.000	.000	.000
3	.000	.000	1.000	.000	.000
4	.000	.000	.000	1.000	.000
5	.000	.000	.000	.000	1.000

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Component Scores.

Result of Multiple regression (in model: Factors affecting Lead (Pb) accumulation in cultivated soil) using Limdep software (2003)

```
--> REGRESS;Lhs=PB_IN_SO;Rhs=ONE,FSC1,FSC2,FSC3,FSC4,FSC5;Ar1;Alg=C$
+----------------------------------------------------+
| Ordinary   least squares regression                |
| Model was estimated Apr 08, 2011 at 02:22:45PM     |
| LHS=PB_IN_SO Mean                =   65.49640      |
|              Standard deviation  =   21.41232      |
| WTS=none     Number of observs.  =         75      |
| Model size   Parameters          =          6      |
|              Degrees of freedom  =         69      |
| Residuals    Sum of squares      =   21445.49      |
|              Standard error of e =   17.62964      |
| Fit          R-squared           =   .3679132      |
|              Adjusted R-squared  =   .3221098      |
| Model test   F[  5,    69] (prob) =   8.03 (.0000) |
| Diagnostic   Log likelihood      =  -318.5122      |
|              Restricted(b=0)     =  -335.7145      |
|              Chi-sq [  5]  (prob) =  34.40 (.0000) |
| Info criter. LogAmemiya Prd. Crt. =   5.816124     |
|              Akaike Info. Criter. =   5.815782     |
| Autocorrel   Durbin-Watson Stat.  =  1.4823898     |
|              Rho = cor[e,e(-1)]   =   .2588051     |
+----------------------------------------------------+
+---------+-----------+---------------+--------+---------+----------+
|Variable |Coefficient| Standard Error|t-ratio |P[|T|>t] | Mean of X|
+---------+-----------+---------------+--------+---------+----------+
 Constant    65.4964000    2.03569565    32.174   .0000
 FSC1         1.64110598    2.04940419      .801   .4260  -.199331D-15
 FSC2        12.3003348     2.04940419     6.002   .0000   .574355D-15
 FSC3        -1.84748727    2.04940419     -.901   .3705  -.171714D-15
 FSC4         2.36207710    2.04940419     1.153   .2531  -.148030D-15
 FSC5         2.38736895    2.04940419     1.165   .2481  -.325665D-16


+--------------------------------------------+
| AR(1) Model:     e(t) = rho * e(t-1) + u(t) |
| Initial value of rho        =       .25881 |
| Maximum iterations          =          100 |
| Method = Cochrane - Orcutt                 |
| Iter=  1, SS=  19452.618, Log-L=-314.889382|
| Iter=  2, SS=  19193.589, Log-L=-314.418721|
| Iter=  3, SS=  19170.547, Log-L=-314.385776|
| Iter=  4, SS=  19168.898, Log-L=-314.386040|
| Iter=  5, SS=  19168.794, Log-L=-314.386764|
| Final value of Rho    =          .392095   |
| Iter=  5, SS=  19168.794, Log-L=-314.386764|
| Durbin-Watson:   e(t) =         1.215811   |
| Std. Deviation:  e(t) =        18.251164   |
| Std. Deviation:  u(t) =        16.789700   |
| Durbin-Watson:   u(t) =         2.107383   |
| Autocorrelation: u(t) =         -.053692   |
| N[0,1] used for significance levels        |
+--------------------------------------------+

+---------+----------+-------------+-------+---------+----------+
|Variable |Coefficien |Standard Error|b/St.Er.|P[|Z|>z] | Mean of X|
+---------+----------+-------------+-------+---------+----------+
 Constant   65.4636327   3.21030965    20.392   .0000
 FSC1        5.49140333   2.03007898     2.705   .0068  -.998550D-16
 FSC2       11.9084281    2.10961417     5.645   .0000   .596745D-15
 FSC3       -1.67139726   1.77736660     -.940   .3470  -.173472D-15
 FSC4        3.32958664   1.91314818     1.740   .0818  -.145717D-15
```

```
 FSC5        1.77038142     2.02014199      .876   .3808  -.954098D-17
 RHO          .39209461      .10693910     3.667   .0002

--> DSTAT;Rhs=FSC1,FSC2,FSC3,FSC4,FSC5,PB_IN_SO;Output=2$

Descriptive Statistics
All results based on nonmissing observations.

=============================================================================
Variable      Mean          Std.Dev.          Minimum    Maximum  Cases
=============================================================================
-----------------------------------------------------------------------------
All observations in current sample
-----------------------------------------------------------------------------
FSC1     -.199331292E-15  1.00000000     -1.37896212  4.88711581   75
FSC2      .574355378E-15  1.00000000     -1.55528149  3.17886097   75
FSC3     -.171714494E-15  1.00000000     -1.99995495  2.09505549   75
FSC4     -.148029737E-15  1.00000000     -2.57055814  2.18236182   75
FSC5     -.325665421E-16  1.00000000     -2.20544789  3.53725893   75
PB_IN_SO  65.4964000      21.4123232      21.2000000  142.370000   75

Correlation Matrix for Listed Variables

            FSC1     FSC2     FSC3     FSC4     FSC5 PB_IN_SO
    FSC1 1.00000   .00000   .00000   .00000   .00000   .07664
    FSC2  .00000  1.00000   .00000   .00000   .00000   .57445
    FSC3  .00000   .00000  1.00000   .00000   .00000  -.08628
    FSC4  .00000   .00000   .00000  1.00000   .00000   .11031
    FSC5  .00000   .00000   .00000   .00000  1.00000   .11150
PB_IN_SO  .07664   .57445  -.08628   .11031   .11150  1.00000
```

APPENDIX C

Results of Factor analysis (in model: Factors affecting Cadmium (Cd) accumulation in vegetables) using SPSS version 16

Descriptive Statistics

	Mean	Std. Deviation	Analysis N
AGE (X1)	45.69	8.049	75
EDU (X2)	7.91	1.825	75
FARM_SIZE (X3)	4.33	1.266	75
TOTAL_AREA (X4)	934.81	668.706	75
AREA_FIELD (X5)	271.20	230.887	75
EXP (X6)	21.47	8.059	75
N_SOURCE (X7)	1.25	.496	75
USE_POND (X8)	.77	.421	75
AMOUNT_WATER (X9)	1.91319	.428129	75
TIME_WATER (X10)	1.193	.5383	75
F_SAFE_P (X11)	.76	.430	75
UNDERSTAND_HM (X12)	.85	.356	75
CD_IN_SOIL (X13)	1.0731	.57526	75
CD_IN_WATER (X14)	.00472	.001269	75

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.547
Bartlett's Test of Sphericity	Approx. Chi-Square	182.417
	df	91
	Sig.	.000

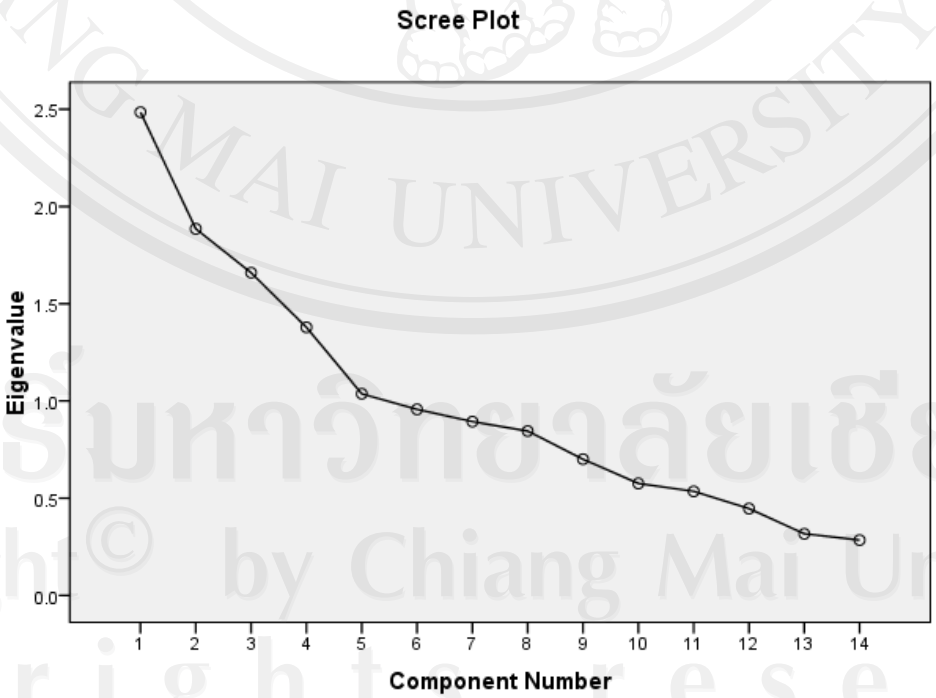
Correlation Matrix

Correlation	AGE (X1)	EDU (X2)	FARM SIZE (X3)	TOTAL_AREA (X4)	AREA FIELD (X5)	EXP (X6)	N SOURCE (X7)	USE_POND (X8)	AMOUNT_WATER (X9)	TIME_WATER (X10)	F_SAFE P (X11)	UNDERSTAND_HM (X12)	CD_IN SOIL (X13)	CD_IN WATER (X14)
AGE (X1)	1.000	-.319	.027	-.149	-.031	.504	.108	-.053	-.016	.020	-.025	-.021	.023	-.060
EDU (X2)	-.319	1.000	-.039	.085	.074	-.215	-.138	.165	-.063	-.140	.092	.124	-.099	.035
FARM_SIZE (X3)	.027	-.039	1.000	.332	.218	-.038	.014	.093	-.012	.261	.074	-.130	-.259	-.126
TOTAL_AREA (X4)	-.149	.085	.332	1.000	.607	-.092	.048	-.186	.039	.279	.099	-.006	-.198	-.256
AREA_FIELD (X5)	-.031	.074	.218	.607	1.000	-.121	.235	-.196	-.086	.325	.287	.051	-.175	-.221
EXP (X6)	.504	-.215	-.038	-.092	-.121	1.000	-.037	-.048	.076	-.147	-.154	.071	.084	-.040
N_SOURCE (X7)	.108	-.138	.014	.048	.235	-.037	1.000	-.174	.021	.219	.162	.137	-.145	-.101
USE_POND (X8)	-.053	.165	.093	-.186	-.196	-.048	-.174	1.000	-.106	-.162	.069	-.134	-.082	-.146
AMOUNT_WATER (X9)	-.016	-.063	-.012	.039	-.086	.076	.021	-.106	1.000	.387	-.207	-.103	.253	.091
TIME_WATER (X10)	.020	-.140	.261	.279	.325	-.147	.219	-.162	.387	1.000	.057	.115	.023	.080
F_SAFE_P (X11)	-.025	.092	.074	.099	.287	-.154	.162	.069	-.207	.057	1.000	.120	-.096	-.174
UNDERSTAND_HM (X12)	-.021	.124	-.130	-.006	.051	.071	.137	-.134	-.103	.115	.120	1.000	.046	-.002
CD_IN_SOIL (X13)	.023	-.099	-.259	-.198	-.175	.084	-.145	-.082	.253	.023	-.096	.046	1.000	.349
CD_IN_WATER (X14)	-.060	.035	-.126	-.256	-.221	-.040	-.101	-.146	.091	.080	-.174	-.002	.349	1.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.485	17.751	17.751	2.485	17.751	17.751	2.151	15.365	15.365
2	1.885	13.465	31.216	1.885	13.465	31.216	1.792	12.798	28.163
3	1.660	11.854	43.070	1.660	11.854	43.070	1.737	12.406	40.569
4	1.379	9.848	52.918	1.379	9.848	52.918	1.420	10.141	50.710
5	1.037	7.406	60.324	1.037	7.406	60.324	1.346	9.614	60.324
6	.957	6.834	67.158						
7	.894	6.384	73.542						
8	.845	6.037	79.579						
9	.700	5.002	84.581						
10	.576	4.113	88.694						
11	.535	3.822	92.517						
12	.446	3.188	95.705						
13	.317	2.264	97.969						
14	.284	2.031	100.000						

Extraction Method: Principal Component Analysis.



Communalities

	Initial	Extraction
AGE (X1)	1.000	.684
EDU (X2)	1.000	.537
FARM_SIZE (X3)	1.000	.535
TOTAL_AREA (X4)	1.000	.802
AREA_FIELD (X5)	1.000	.698
EXP (X6)	1.000	.718
N_SOURCE (X7)	1.000	.627
USE_POND (X8)	1.000	.559
AMOUNT_WATER (X9)	1.000	.577
TIME_WATER (X10)	1.000	.716
F_SAFE_P (X11)	1.000	.501
UNDERSTAND_HM (X12)	1.000	.525
CD_IN_SOIL (X13)	1.000	.492
CD_IN_WATER (X14)	1.000	.474

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component				
	1	2	3	4	5
AREA_FIELD (X5)	.791				
TOTAL_AREA (X4)	.749				-.432
CD_IN_SOIL (X13)	-.461		.410		
F_SAFE_P (X11)	.415				
EDU (X2)		-.577			
TIME_WATER (X10)	.455	.534			
AMOUNT_WATER (X9)		.510	.439		
USE_POND (X8)		-.508			
AGE (X1)		.509	-.628		
EXP (X6)		.434	-.543		
CD_IN_WATER (X14)	-.417		.512		
UNDERSTAND_HM (X12)				.691	
FARM_SIZE (X3)	.489			-.515	
N_SOURCE (X7)				.408	.471

Extraction Method: Principal Component Analysis.

a. 5 components extracted.

Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
TOTAL_AREA (X4)	.884				
AREA_FIELD (X5)	.774				
AGE (X1)		.819			
EXP (X6)		.769			
EDU (X2)		-.616			
AMOUNT_WATER (X9)			.742		
TIME_WATER (X10)			.631	.401	
CD_IN_SOIL (X13)			.487		
CD_IN_WATER (X14)			.483		
N_SOURCE (X7)				.756	
F_SAFE_P (X11)				.591	
UNDERSTAND_HM (X12)					.676
USE_POND (X8)					-.573
FARM_SIZE (X3)	.489				-.535

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 16 iterations.

Component Transformation Matrix

Component	1	2	3	4	5
1	.860	-.209	-.107	.443	-.093
2	.187	.669	.673	.157	.200
3	-.013	-.707	.668	-.102	.209
4	-.190	-.053	-.248	.458	.830
5	-.434	-.081	.165	.748	-.467

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Component Score Coefficient Matrix

	Component				
	1	2	3	4	5
AGE (X1)	-.010	.461	-.067	.062	-.008
EDU (X2)	.082	-.331	-.149	-.210	.169
FARM_SIZE (X3)	.207	.047	.051	-.003	-.383
TOTAL_AREA (X4)	.475	-.030	.006	-.239	.075
AREA_FIELD (X5)	.359	-.017	-.035	.036	.148
EXP (X6)	.100	.441	-.109	-.259	.154
N_SOURCE (X7)	-.101	.084	.051	.572	.039
USE_POND (X8)	-.203	-.096	-.141	.092	-.435
AMOUNT_WATER (X9)	.028	.007	.436	-.047	-.127
TIME_WATER (X10)	.109	-.025	.384	.262	-.097
F_SAFE_P (X11)	-.070	-.094	-.168	.434	.028
UNDERSTAND_HM (X12)	.015	-.023	-.109	.117	.508
CD_IN_SOIL (X13)	-.125	-.028	.261	-.083	.204
CD_IN_WATER (X14)	-.162	-.130	.273	-.032	.135

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Component Scores.

Component Score Covariance Matrix

Component	1	2	3	4	5
1	1.000	.000	.000	.000	.000
2	.000	1.000	.000	.000	.000
3	.000	.000	1.000	.000	.000
4	.000	.000	.000	1.000	.000
5	.000	.000	.000	.000	1.000

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Component Scores.

Result of Multiple regression (in model: Factors affecting Cadmium (Cd) accumulation in vegetables) using Limdep software (2003)

```
--> REGRESS;Lhs=CD_IN_VE;Rhs=ONE,FSC1,FSC2,FSC3,FSC4,FSC5;Ar1;Alg=C$
+----------------------------------------------------+
| Ordinary    least squares regression               |
| Model was estimated Jun 23, 2011 at 06:16:12AM     |
| LHS=CD_IN_VE Mean                 =   .1309333     |
|              Standard deviation   =   .5766102E-01 |
| WTS=none     Number of observs.   =         75      |
| Model size   Parameters           =          6      |
|              Degrees of freedom   =         69      |
| Residuals    Sum of squares       =   .1340780     |
|              Standard error of e  =   .4408128E-01 |
| Fit          R-squared            =   .4550444     |
|              Adjusted R-squared   =   .4155548     |
| Model test   F[  5,    69] (prob) =  11.52 (.0000)  |
| Diagnostic   Log likelihood       =   130.8354     |
|              Restricted(b=0)      =   108.0710     |
|              Chi-sq [  5]  (prob) =  45.53 (.0000)  |
| Info criter. LogAmemiya Prd. Crt. = -6.166479      |
|              Akaike Info. Criter. = -6.166822      |
| Autocorrel   Durbin-Watson Stat.  =  2.0308780     |
|              Rho = cor[e,e(-1)]   =  -.0154390     |
+----------------------------------------------------+
+---------+-----------+---------------+--------+---------+----------+
|Variable |Coefficient|Standard Error |t-ratio |P[|T|>t] | Mean of X|
+---------+-----------+---------------+--------+---------+----------+
 Constant    .13093333     .00509007    25.723   .0000
 FSC1       -.02240465     .00512434    -4.372   .0000   .408562D-15
 FSC2        .00625501     .00512434     1.221   .2264   .109542D-15
 FSC3        .02729596     .00512434     5.327   .0000  -.414483D-15
 FSC4       -.01298959     .00512434    -2.535   .0135   .132117D-15
 FSC5        .00761813     .00512434     1.487   .1417  -.633567D-15

+--------------------------------------------+
| AR(1) Model:     e(t) = rho * e(t-1) + u(t) |
| Initial value of rho      =       -.01544  |
| Maximum iterations        =           100  |
| Method = Cochrane - Orcutt                 |
| Iter=  1, SS=       .132, Log-L= 131.424867|
| Iter=  2, SS=       .132, Log-L= 131.426654|
| Final value of Rho    =            -.018235|
| Iter=  2, SS=       .132, Log-L= 131.426654|
| Durbin-Watson:   e(t) =           2.036470 |
| Std. Deviation:  e(t) =            .044063 |
| Std. Deviation:  u(t) =            .044055 |
| Durbin-Watson:   u(t) =           1.980280 |
| Autocorrelation: u(t) =            .009860 |
| N[0,1] used for significance levels        |
+--------------------------------------------+
```

Variable	Coefficient	Standard Error	b/St.Er.	P[|Z|>z]	Mean of X
Constant	.13155520	.00503463	26.130	.0000	
FSC1	-.02255954	.00509032	-4.432	.0000	.371231D-15
FSC2	.00720214	.00520110	1.385	.1661	.902056D-16
FSC3	.02789914	.00511632	5.453	.0000	-.426742D-15
FSC4	-.01404875	.00518385	-2.710	.0067	.186049D-15
FSC5	.00829964	.00520045	1.596	.1105	-.612357D-15
RHO	-.01823519	.11622831	-.157	.8753	

APPENDIX D

Results of Factor analysis (in model: Factors affecting Cadmium (Cd) accumulation in cultivated soil) using SPSS version 16

Descriptive Statistics

	Mean	Std. Deviation	Analysis N
AGE (X1)	45.69	8.049	75
EDU (X2)	7.91	1.825	75
FARM_SIZE (X3)	4.33	1.266	75
TOTAL_AREA (X4)	934.81	668.706	75
AREA_FIELD (X5)	271.20	230.887	75
EXP (X6)	21.47	8.059	75
N_SOURCE (X7)	1.25	.496	75
USE_POND (X8)	.77	.421	75
AMOUNT_WATER (X9)	1.91319	.428129	75
TIME_WATER (X10)	1.193	.5383	75
F_SAFE_P (X11)	.76	.430	75
UNDERSTAND_HM (X12)	.85	.356	75
CD_IN_WATER (X13)	.00472	.001269	75

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.537
Bartlett's Test of Sphericity	Approx. Chi-Square	162.733
	df	78
	Sig.	.000

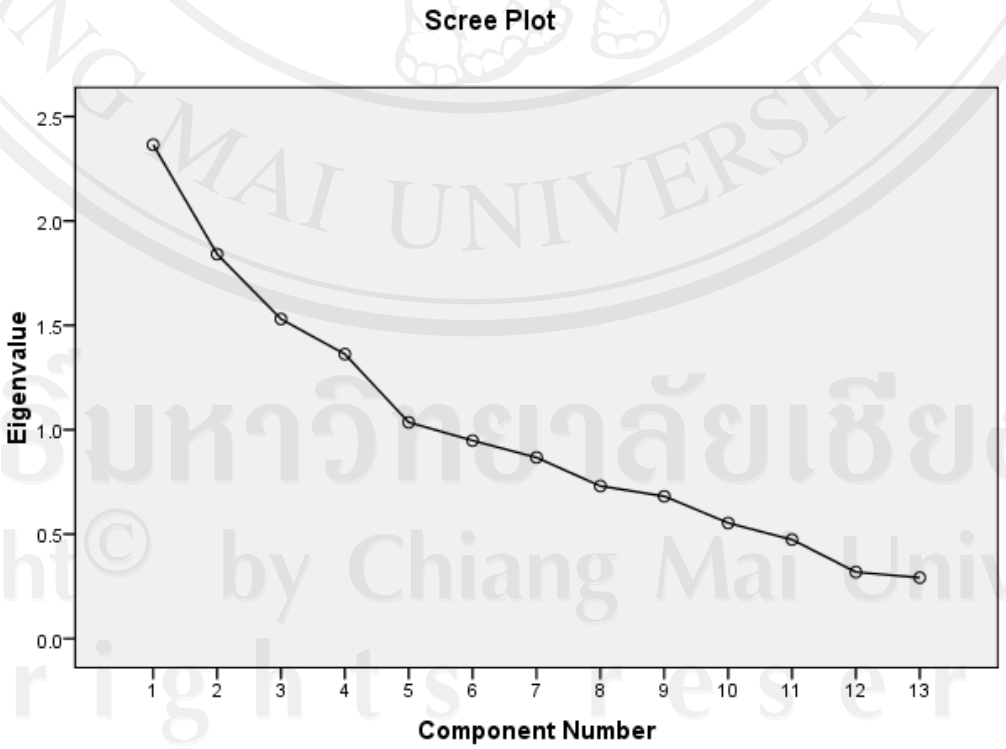
Correlation Matrix

Correlation	AGE (X1)	EDU (X2)	FARM SIZE (X3)	TOTAL_AREA (X4)	AREA FIELD (X5)	EXP (X6)	N SOURCE (X7)	USE_POND (X8)	AMOUNT_WATER (X9)	TIME_WATER (X10)	F_SAFE P (X11)	UNDERSTAND_HM (X12)	CD_IN WATER (X13)
AGE (X1)	1.000	-.319	.027	-.149	-.031	.504	.108	-.053	-.016	.020	-.025	-.021	-.060
EDU (X2)	-.319	1.000	-.039	.085	.074	-.215	-.138	.165	-.063	-.140	.092	.124	.035
FARM_SIZE (X3)	.027	-.039	1.000	.332	.218	-.038	.014	.093	-.012	.261	.074	-.130	-.126
TOTAL_AREA (X4)	-.149	.085	.332	1.000	.607	-.092	.048	-.186	.039	.279	.099	-.006	-.256
AREA_FIELD (X5)	-.031	.074	.218	.607	1.000	-.121	.235	-.196	-.086	.325	.287	.051	-.221
EXP (X6)	.504	-.215	-.038	-.092	-.121	1.000	-.037	-.048	.076	-.147	-.154	.071	-.040
N_SOURCE (X7)	.108	-.138	.014	.048	.235	-.037	1.000	-.174	.021	.219	.162	.137	-.101
USE_POND (X8)	-.053	.165	.093	-.186	-.196	-.048	-.174	1.000	-.106	-.162	.069	-.134	-.146
AMOUNT_WATER (X9)	-.016	-.063	-.012	.039	-.086	.076	.021	-.106	1.000	.387	-.207	-.103	.091
TIME_WATER (X10)	.020	-.140	.261	.279	.325	-.147	.219	-.162	.387	1.000	.057	.115	.080
F_SAFE_P (X11)	-.025	.092	.074	.099	.287	-.154	.162	.069	-.207	.057	1.000	.120	-.174
UNDERSTAND_HM (X12)	-.021	.124	-.130	-.006	.051	.071	.137	-.134	-.103	.115	.120	1.000	-.002
CD_IN_WATER (X13)	-.060	.035	-.126	-.256	-.221	-.040	-.101	-.146	.091	.080	-.174	-.002	1.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.365	18.190	18.190	2.365	18.190	18.190	2.046	15.740	15.740
2	1.841	14.163	32.353	1.841	14.163	32.353	1.786	13.737	29.477
3	1.530	11.772	44.124	1.530	11.772	44.124	1.614	12.412	41.889
4	1.362	10.477	54.601	1.362	10.477	54.601	1.384	10.644	52.533
5	1.036	7.967	62.568	1.036	7.967	62.568	1.305	10.035	62.568
6	.948	7.294	69.862						
7	.867	6.671	76.532						
8	.731	5.620	82.152						
9	.682	5.243	87.395						
10	.554	4.261	91.656						
11	.474	3.646	95.302						
12	.319	2.453	97.755						
13	.292	2.245	100.000						

Extraction Method: Principal Component Analysis.



Communalities

	Initial	Extraction
AGE (X1)	1.000	.692
EDU (X2)	1.000	.532
FARM_SIZE (X3)	1.000	.534
TOTAL_AREA (X4)	1.000	.815
AREA_FIELD (X5)	1.000	.724
EXP (X6)	1.000	.714
N_SOURCE (X7)	1.000	.614
USE_POND (X8)	1.000	.623
AMOUNT_WATER (X9)	1.000	.574
TIME_WATER (X10)	1.000	.721
F_SAFE_P (X11)	1.000	.591
UNDERSTAND_HM (X12)	1.000	.527
CD_IN_WATER (X13)	1.000	.472

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component				
	1	2	3	4	5
AREA_FIELD (X5)	.815				
TOTAL_AREA (X4)	.767				-.419
TIME_WATER (X10)	.568		-.447		
AGE (X1)		.681	.443		
EDU (X2)		-.654			
EXP (X6)		.598			
AMOUNT_WATER (X9)			-.624		
CD_IN_WATER (X13)			-.563		
F_SAFE_P (X11)			.412		
UNDERSTAND_HM (X12)				.688	
FARM_SIZE (X3)	.455			-.554	
USE_POND (X8)		-.408		-.420	
N_SOURCE (X7)				.420	.445

Extraction Method: Principal Component Analysis.

a. 5 components extracted.

Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
TOTAL_AREA (X4)	.883				
AREA_FIELD (X5)	.785				
FARM_SIZE (X3)	.517				-.489
CD_IN_WATER (X13)	-.439				
AGE (X1)		.825			
EXP (X6)		.766			
EDU (X2)		-.618			
AMOUNT_WATER (X9)			.737		
TIME_WATER (X10)			.712		
N_SOURCE (X7)				.716	
F_SAFE_P (X11)				.660	
USE_POND (X8)					-.667
UNDERSTAND_HM (X12)					.667

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

Component Transformation Matrix

Component	1	2	3	4	5
1	.853	-.202	.205	.429	.066
2	.041	.852	.487	.060	.178
3	.171	.462	-.813	.285	-.122
4	-.286	-.130	-.109	.429	.840
5	-.399	-.054	.218	.739	-.494

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Component Score Coefficient Matrix

	Component				
	1	2	3	4	5
AGE (X1)	.007	.468	-.061	.071	-.021
EDU (X2)	.080	-.336	-.180	-.187	.149
FARM_SIZE (X3)	.247	.055	.083	.003	-.382
TOTAL_AREA (X4)	.484	-.035	-.005	-.233	.081
AREA_FIELD (X5)	.376	-.013	-.046	.052	.130
EXP (X6)	.100	.438	-.131	-.248	.148
N_SOURCE (X7)	-.108	.083	.112	.547	.078
USE_POND (X8)	-.129	-.069	-.152	.139	-.513
AMOUNT_WATER (X9)	-.036	-.005	.467	-.099	-.069
TIME_WATER (X10)	.061	-.032	.438	.221	-.045
F_SAFE_P (X11)	-.016	-.067	-.191	.490	-.066
UNDERSTAND_HM (X12)	-.022	-.034	-.126	.125	.508
CD_IN_WATER (X13)	-.234	-.143	.272	-.069	.170

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Component Scores.

Component Score Covariance Matrix

Component	1	2	3	4	5
1	1.000	.000	.000	.000	.000
2	.000	1.000	.000	.000	.000
3	.000	.000	1.000	.000	.000
4	.000	.000	.000	1.000	.000
5	.000	.000	.000	.000	1.000

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Component Scores.

Result of Multiple regression (in model: Factors affecting Cadmium (Cd) accumulation in vegetables) using Limdep software (2003)

```
--> REGRESS;Lhs=CD_IN_SO;Rhs=ONE,FSC1,FSC2,FSC3,FSC4,FSC5;Ar1;Alg=C$

+----------------------------------------------------+
| Ordinary    least squares regression               |
| Model was estimated Apr 08, 2011 at 02:40:40PM     |
| LHS=CD_IN_SO Mean                =   1.073067      |
|              Standard deviation  =   .5752555      |
| WTS=none     Number of observs.  =         75      |
| Model size   Parameters          =          6      |
|              Degrees of freedom  =         69      |
| Residuals    Sum of squares      =   20.12248      |
|              Standard error of e =   .5400279     |
| Fit          R-squared           =   .1782717      |
|              Adjusted R-squared  =   .1187262      |
| Model test   F[  5,    69] (prob) =   2.99 (.0167) |
| Diagnostic   Log likelihood      =  -57.08349      |
|              Restricted(b=0)     =  -64.44645      |
|              Chi-sq [  5]  (prob) =  14.73 (.0116) |
| Info criter. LogAmemiya Prd. Crt. =  -1.155308     |
|              Akaike Info. Criter. =  -1.155651     |
| Autocorrel   Durbin-Watson Stat.  =  1.6352271     |
|              Rho = cor[e,e(-1)]   =   .1823865     |
+----------------------------------------------------+

+---------+-----------+--------------+--------+---------+----------+
|Variable |Coefficient|Standard Error|t-ratio |P[|T|>t] | Mean of X|
+---------+-----------+--------------+--------+---------+----------+
 Constant   1.07306667     .06235705    17.208    .0000
 FSC1       -.16513716     .06277696    -2.631    .0105    .113076D-14
 FSC2        .01253552     .06277696      .200    .8423    .387838D-15
 FSC3        .12917984     .06277696     2.058    .0434   -.663173D-15
 FSC4       -.08087157     .06277696    -1.288    .2020    .428546D-15
 FSC5        .09131493     .06277696     1.455    .1503   -.704622D-15


+---------------------------------------------+
| AR(1) Model:     e(t) = rho * e(t-1) + u(t) |
| Initial value of rho       =         .18239 |
| Maximum iterations         =            100 |
| Method = Cochrane - Orcutt                  |
| Iter=  1, SS=     18.950, Log-L= -54.848568 |
| Iter=  2, SS=     18.951, Log-L= -54.856424 |
| Final value of Rho    =              .182386 |
| Iter=  2, SS=     18.951, Log-L= -54.856424 |
| Durbin-Watson:   e(t) =            1.584382 |
| Std. Deviation:  e(t) =             .536900 |
| Std. Deviation:  u(t) =             .527894 |
| Durbin-Watson:   u(t) =            2.135445 |
| Autocorrelation: u(t) =            -.067722 |
| N[0,1] used for significance levels         |
+---------------------------------------------+

+---------+-----------+--------------+--------+---------+----------+
|Variable |Coefficient|Standard Error|b/St.Er.|P[|Z|>z] | Mean of X|
+---------+-----------+--------------+--------+---------+----------+
 Constant   1.08451236     .07511620    14.438    .0000
 FSC1       -.14051397     .06430419    -2.185    .0289    .106187D-14
 FSC2        .01679218     .06012912      .279    .7800    .388578D-15
 FSC3        .11314631     .06313305     1.792    .0731   -.617562D-15
 FSC4       -.09428233     .06412117    -1.470    .1415    .333067D-15
```

```
 FSC5          .10829956     .06209193     1.744   .0811  -.725114D-15
 RHO           .18238646     .11429781     1.596   .1106

--> DSTAT;Rhs=FSC1,FSC2,FSC3,FSC4,FSC5,CD_IN_SO;Output=2$

Descriptive Statistics
All results based on nonmissing observations.
=============================================================================
Variable     Mean          Std.Dev.       Minimum       Maximum   Cases
=============================================================================
FSC1     .113076215E-14  1.00000000     -1.68555947  4.77545364     75
FSC2     .387837910E-15  1.00000000     -2.31084534  2.12458443     75
FSC3    -.663173220E-15  1.00000000     -1.91113619  2.74298706     75
FSC4     .428546088E-15  1.00000000     -2.09257425  3.69949062     75
FSC5     .704621546E-15  1.00000000     -2.36465920  2.09602900     75
CD_IN_SO    1.07306667   .575255462      .320000000  2.54000000     75

Correlation Matrix for Listed Variables

             FSC1      FSC2      FSC3      FSC4      FSC5  CD_IN_SO
    FSC1  1.00000    .00000    .00000    .00000    .00000   -.28707
    FSC2   .00000   1.00000    .00000    .00000    .00000    .02179
    FSC3   .00000    .00000   1.00000    .00000    .00000    .22456
    FSC4   .00000    .00000    .00000   1.00000    .00000   -.14058
    FSC5   .00000    .00000    .00000    .00000   1.00000    .15874
CD_IN_SO  -.28707    .02179    .22456   -.14058    .15874   1.00000
```

Curriculum Vitae

Name	Nguyen Ngoc Son Hai
Date of birth	August 29, 1986
Educational Background	
2004 - 2008	Bachelor of Environment Science (B. En. Sc), Thai Nguyen University of Agriculture and Forestry, Vietnam
2009 - 2011	M. Sc. Agriculture (Agricultural Systems), Multiple Cropping Center (MCC), Chiang Mai University, Thailand
Scholarship	
2009-2011	Decision Support Systems Research and Development Network, Thailand (TRF-DSS)
Working Experience	
2008 - Present	Lecturer, Faculty of Natural Resources and Environment, Thai Nguyen University of Agriculture and Forestry, Vietnam