LAMPIRAN A
SURAT DETERMINASI CACING TANAH

FORMULIR HASIL PEMERIKSAAN SAMPEL

DEPARTEMEN PENDIDIKAN NASIONAL
FAKULTAS KEDOKTERAN HEWAN UNIVERSITAS AIRLANGGA
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No. : 429/Helmin/ULPLKP/UA.FKH/VII/2010 Surabaya, 6 Juli 2010
Perihal : Determinasi Cacing

Kepada Yth.
Sdr. Hans
Mahasiswa Universitas Widya Mandala
Di Surabaya.

Dengan hormat,

Bersama ini kami sampaikan hasil determinasi cacing tanah yang telah dilakukan adalah sebagai berikut.

Kingdom	: Animalia
Phylum	: Annelida
Class	: Cletellata
Subclass	: Oligochaeta
Order	: Haplotaxida
Family	: Lumbricidae
Genus	: Lumbricus
Species	: ***Lumbricus rubellus***

Demikian hasil pemeriksaan ini untuk diketahui dan digunakan sebagaimana mestinya.

Mengetahui,

(Emy Koestanti, MKes., drh.)
NIP.132 240 300

Penanggung Jawab Pemeriksaan,

(Dr. Kusnoto, MSi., drh.)
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LAMPIRAN B
HASIL UJI MUTU FISIK GRANUL

Mutu fisik	*Batch*	Formula Granul				Persyaratan
		F1	F2	F3	F4	
Kadar air (persen)	I	4,2	3,41	3,15	2,35	3-5 % (Voigt, 1995)
	II	4,1	3,56	3,28	2,55	
	III	3,98	3,33	3,2	2,49	
		4,09	3,43	3,21	2,46	
	SD	0,11	0,12	0,066	0,1	
Waktu alir (detik)	I	9,88	9,36	9,98	9,49	Tidak > 10 detik (Banker & Anderson, 1986)
	II	9,78	9,96	9,67	9,57	
	III	9,81	9,89	9,79	9,93	
		9,82	9,74	9,81	9,66	
	SD	0,05	0,33	0,17	0,23	
Sudut diam (derajat)	I	36,87	34,59	37,73	33,7	30-40 cukup baik (Wells, 1988)
	II	37,93	37,76	35,94	37,06	
	III	37,05	37,11	39,48	36,45	
		37,28	36,49	37,72	35,74	
	SD	0,57	1,67	1,77	1,79	
Carr's Index (persen)	I	9,5	15,5	11,49	17,5	< 20% (Carr, 1965)
	II	9,5	13,99	13,49	16,5	
	III	9,2	14,99	11,99	17,5	
		9,4	14,83	12,32	17,17	
	SD	0,17	0,77	1,04	0,58	
Hausner ratio	I	1,105	1,1835	1,1298	1,2121	< 1,25 (Ahuja, 2001)
	II	1,105	1,1627	1,156	1,1976	
	III	1,1019	1,1764	1,1362	1,2122	
		1,104	1,174	1,141	1,207	
	SD	0,0018	0,0106	0,0137	0,0084	
Bobot jenis nyata (g/ml)	I	0,3246	0,2327	0,335	0,2357	
	II	0,3209	0,2317	0,3693	0,2429	
	III	0,3416	0,2653	0,3413	0,279	
		0,329	0,2432	0,3485	0,2525	
	SD	0,011	0,0191	0,0183	0,0232	
Bobot jenis mampat (g/ml)	I	0,3587	0,2754	0,3785	0,2857	
	II	0,3546	0,2694	0,4269	0,2909	
	III	0,3764	0,3121	0,3878	0,3382	
		0,3632	0,2856	0,3977	0,3049	
	SD	0,0116	0,0231	0,0257	0,0289	
Kerapuhan (persen)	I	0,6	2,09	4,1	3,7	< 1% (Parrott, 1971)
	II	0,7	1,9	3,6	4	
	III	0,6	2,2	3,9	4,3	
		0,63	2,06	3,87	4	
	SD	0,06	0,15	0,25	0,3	

Mutu fisik yang diuji	Replikasi	Formula Granul Optimum	Persyaratan
Kadar air (persen)	I	3,21	3-5 % (Voigt, 1995)
	II	3,43	
	III	3,03	
		3,22	
	SD	0,2	
Waktu alir (detik)	I	9,21	Tidak lebih dari 10 detik (Banker & Anderson, 1986)
	II	9,57	
	III	9,55	
		9,44	
	SD	0,2	
Sudut diam (derajat)	I	34,55	30-40 cukup baik (Wells, 1988)
	II	34,23	
	III	34,56	
		34,45	
	SD	0,19	
Carr's Index (persen)	I	10,84	Kurang dari 20 % (Carr, 1965)
	II	9,49	
	III	8,25	
		9,53	
	SD	1,29	
Hausner ratio	I	1,1216	Kurang dari 1,25 (Ahuja, 2001)
	II	1,1048	
	III	1,0899	
		1,1054	
	SD	0,0159	
Bobot jenis nyata (g/ml)	I	0,3133	
	II	0,3319	
	III	0,3304	
		0,3252	
	SD	0,0103	
Bobot jenis mampat (g/ml)	I	0,3514	
	II	0,3667	
	III	0,3601	
		0,3594	
	SD	0,0077	
Kerapuhan (persen)	I	0,6	Kurang dari 1% (Parrott, 1971)
	II	0,7	
	III	0,7	
		0,67	
	SD	0,06	

LAMPIRAN C
HASIL ANOVA UJI *CARR'S INDEX* PADA DESIGN EXPERT

Response 1 Carr's Index
ANOVA for selected factorial model
Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean Square	F Value	p-value Prob > F
Model	100.14	3	33.38	65.55	< 0.0001
significant					
A-Avicel PH 101	*20.78*	*1*	*20.78*	*40.81*	*0.0002*
B-Amilum jagung	*79.10*	*1*	*79.10*	*155.36*	*< 0.0001*
AB0.26	*1*	*0.26*	*0.50*	*0.4991*	
Pure Error	4.07	8	0.51		
Cor Total	104.21	11			

The Model F-value of 65.55 implies the model is significant. There is only
a 0.01% chance that a "Model F-Value" this large could occur due to noise.

Values of "Prob > F" less than 0.0500 indicate model terms are significant.
In this case A, B are significant model terms.
Values greater than 0.1000 indicate the model terms are not significant.
If there are many insignificant model terms (not counting those required to support hierarchy),
model reduction may improve your model.

Std. Dev.	0.71	R-Squared	0.9609
Mean	13.43	Adj R-Squared	0.9463
C.V. %	5.31	Pred R-Squared	0.9121
PRESS	9.17	Adeq Precision	18.852

The "Pred R-Squared" of 0.9121 is in reasonable agreement with the "Adj R-Squared" of 0.9463.

"Adeq Precision" measures the signal to noise ratio. A ratio greater than 4 is desirable. Your
ratio of 18.852 indicates an adequate signal. This model can be used to navigate the design space.

Factor	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
Intercept	13.43	1	0.21	12.95	13.90	
A-Avicel PH 101	-1.32	1	0.21	-1.79	-0.84	1.00
B-Amilum jagung	-2.57	1	0.21	-3.04	-2.09	1.00
AB	-0.15	1	0.21	-0.62	0.33	1.00

Final Equation in Terms of Coded Factors:

Carr's Index =
+13.43
-1.32 * A
-2.57 * B
-0.15 * A * B

Final Equation in Terms of Actual Factors:

Carr's Index =
+13.42917
-1.31583 * Avicel PH 101
-2.56750 * Amilum jagung
-0.14583 * Avicel PH 101 * Amilum jagung

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node.

In the Diagnostics Node, Select Case Statistics from the View Menu.

Proceed to Diagnostic Plots (the next icon in progression). Be sure to look at the:

1) Normal probability plot of the studentized residuals to check for normality of residuals.

2) Studentized residuals versus predicted values to check for constant error.

3) Externally Studentized Residuals to look for outliers, i.e., influential values.

4) Box-Cox plot for power transformations.

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon.

LAMPIRAN D
HASIL ANOVA UJI KERAPUHAN PADA DESIGN EXPERT

Response 2 Kerapuhan
ANOVA for selected factorial model
Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean Square	F Value	p-value Prob > F
Model	23.14	3	7.71	171.70	< 0.0001significant
A-Avicel PH 101	*20.05*	*1*	*20.05*	*446.23*	*< 0.0001*
B-Amilum jagung	*1.83*	*1*	*1.83*	*40.80*	*0.0002*
AB1.26	*1*	*1.26*	*28.07*	*0.0007*	
Pure Error	0.36	8	0.045		
Cor Total	23.50	11			

The Model F-value of 171.70 implies the model is significant. There is only
a 0.01% chance that a "Model F-Value" this large could occur due to noise.

Values of "Prob > F" less than 0.0500 indicate model terms are significant.
In this case A, B, AB are significant model terms.
Values greater than 0.1000 indicate the model terms are not significant.
If there are many insignificant model terms (not counting those required to support hierarchy),
model reduction may improve your model.

Std. Dev.	0.21	R-Squared	0.9847
Mean	2.64	Adj R-Squared	0.9790
C.V. %	8.03	Pred R-Squared	0.9656
PRESS	0.81	Adeq Precision	27.512

The "Pred R-Squared" of 0.9656 is in reasonable agreement with the "Adj R-Squared" of 0.9790.

"Adeq Precision" measures the signal to noise ratio. A ratio greater than 4 is desirable. Your
ratio of 27.512 indicates an adequate signal. This model can be used to

navigate the design space.

Factor	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
Intercept	2.64	1	0.061	2.50	2.78	
A-Avicel PH 101	-1.29	1	0.061	-1.43	-1.15	1.00
B-Amilum jagung	-0.39	1	0.061	-0.53	-0.25	1.00
AB	-0.32	1	0.061	-0.47	-0.18	1.00

Final Equation in Terms of Coded Factors:

Kerapuhan =
+2.64
-1.29 * A
-0.39 * B
-0.32 * A * B

Final Equation in Terms of Actual Factors:

Kerapuhan =
+2.64083
-1.29250 * Avicel PH 101
-0.39083 * Amilum jagung
-0.32417 * Avicel PH 101 * Amilum jagung

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4) Box-Cox plot for power transformations.

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon.