

Lampiran 1

Pernyataan Keaslian Tulisan

Saya yang bertanda tangan dibawah ini :

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Menyatakan dengan sebenarnya bahwa Tugas Akhir yang saya tulis ini benar benar hasil karya saya sendiri bukan merupakan pengambilalihan tulisan atau pikiran orang lain yang saya akui sebagai tulisan atau pikiran saya sendiri. Apabila dikemudian hari dapat dibuktikan bahwa Tugas Akhir ini adalah hasil jiplakan, maka saya bersedia menerima sanksi atas perbuatan tersebut.

Malang, 7 April 2014

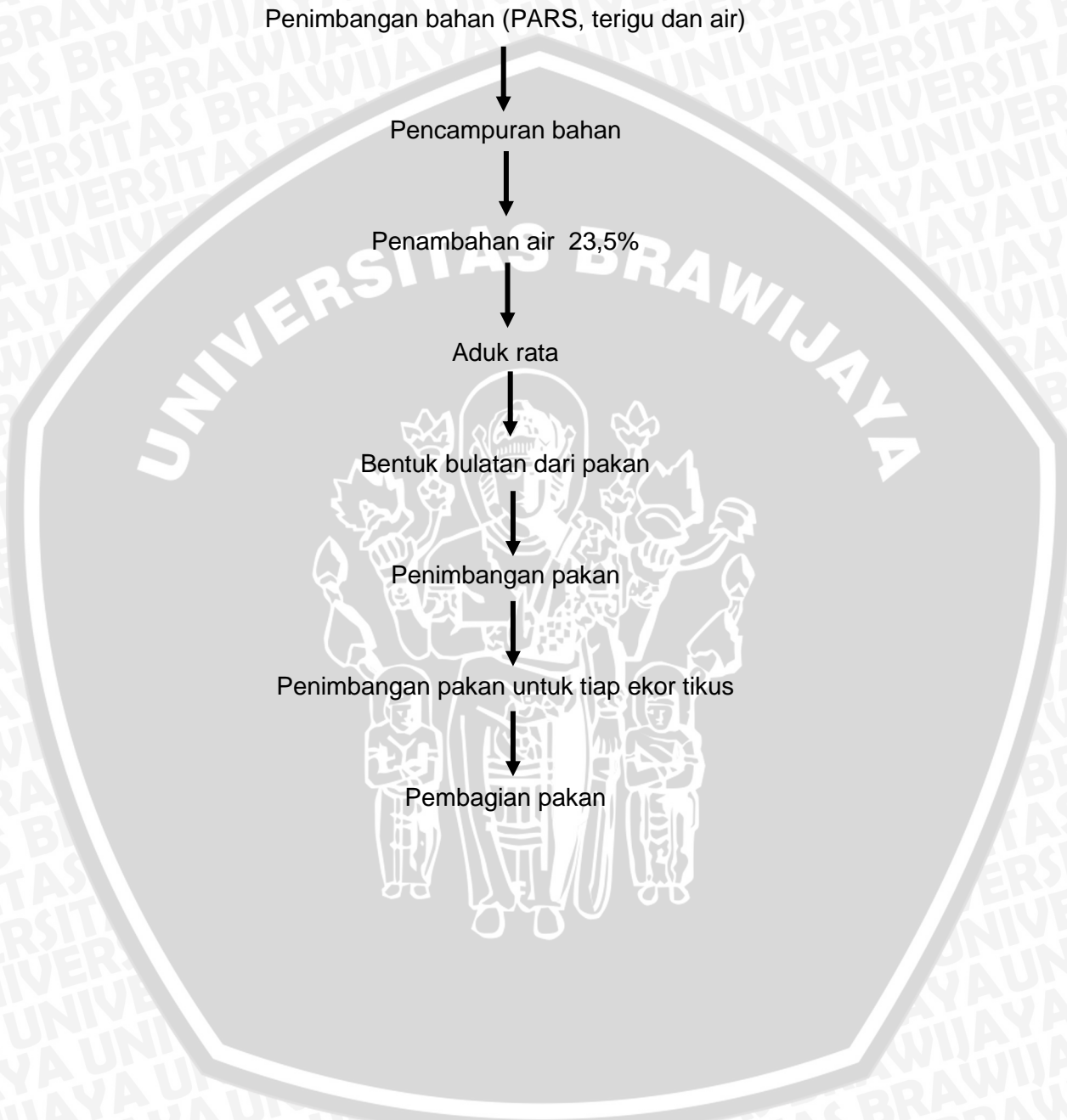
Yang membuat pernyataan,

Puji Lestari

NIM. 105070300111059

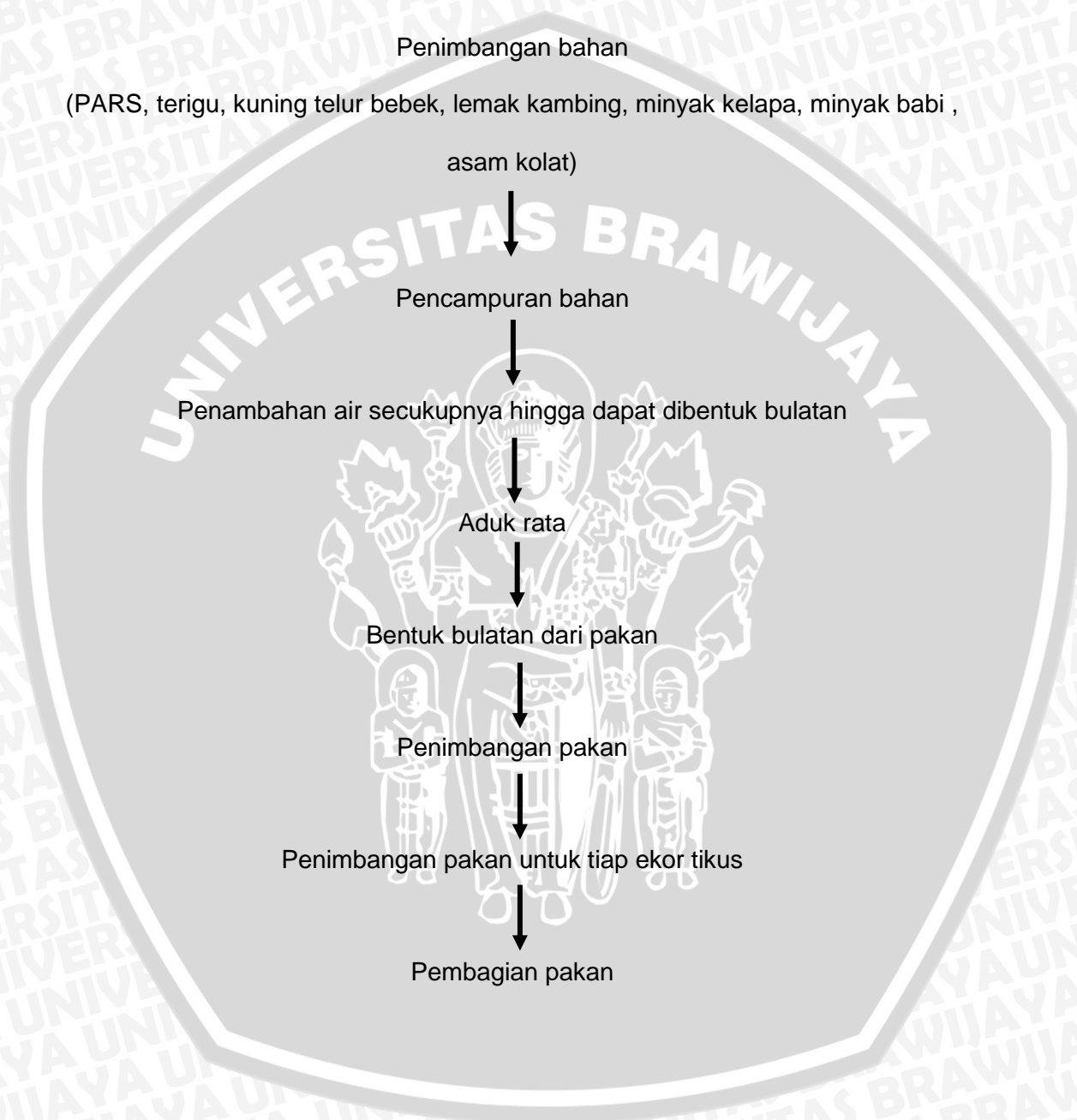
Lampiran 2

Diagram Alur Pembuatan Pakan Diet Normal

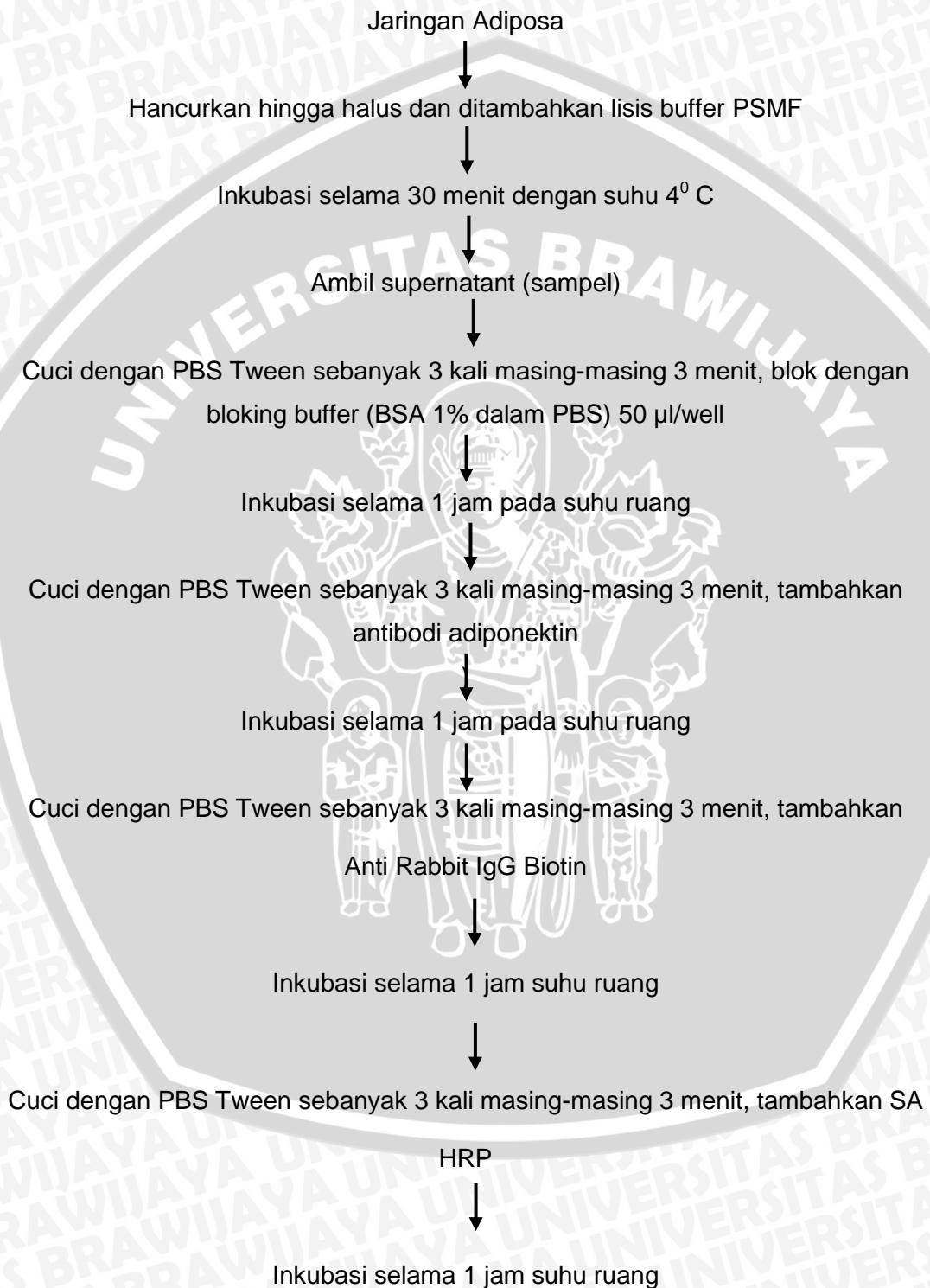


Lampiran 3

Diagram Alur Pembuatan Pakan High Fat Diet



Lampiran 4

Diagram Alur Pemeriksaan Kadar Adiponektin Jaringan Adiposa

Tambahkan substrat TMB



Inkubasi selama 30 menit dalam suhu ruang



Hentikan reaksi dengan HCl 1 N



Inkubasi selama 15 menit pada suhu ruang



Ukur absorbansi pada panjang gelombang 450 nm dengan ELISA READER



Lampiran 5

Komposisi Pakan Tikus Diet Normal

Total pakan tikus yang disajikan per hari adalah 40 gram sehingga jumlah bahan yang dibutuhkan sebagai berikut :

Komposisi	%	Jumlah
PARS	53%	21,2 gram
Terigu	23.5%	9,4 gram
Air	23,5%	9,4 mL

Komposisi Bahan dan Energi Pakan Diet Normal Tikus

	PARS (21.2 gram)	Tepung Terigu ‘Gunung Bromo” (9,4 gram	Total Diet Normal (PARS + tepung terigu)
Energi	$\left(\frac{21,2}{100}\right) \times 344 = 72,93 \text{ kkal}$	$\left(\frac{9,4}{100}\right) \times 340 = 31,96 \text{ kkal}$	104,9 kalori
Protein	$\left(\frac{21,2}{100}\right) \times 19 = 4,03 \text{ gram}$	$\left(\frac{9,4}{100}\right) \times 11 = 1,03 \text{ gram}$	5,06 gram
Lemak	$\left(\frac{21,2}{100}\right) \times 4 = 0,85 \text{ gram}$	$\left(\frac{9,4}{100}\right) \times 0,9 = 0,08 \text{ gram}$	0,93 gram
Karbohidrat	$\left(\frac{21,2}{100}\right) \times 58 = 12,29 \text{ gram}$	$\left(\frac{9,4}{100}\right) \times 72 = 6,77 \text{ gram}$	19.06 gram

Jumlah energy dalam 1 gram pakan = 104,9 kkal : 40 gram = 2.62 kalori

Kebutuhan energy tikus per hari = 105 kkal / hari

Jumlah pakan tikus per hari = 105 kkal : 2.62 kkal = 40 gram



Lampiran 6

Komposisi Pakan Tikus High Fat Diet

Total pakan tikus yang disajikan per hari adalah 40 gram sehingga jumlah bahan yang dibutuhkan sebagai berikut :

Bahan	%	Berat (Gram)
Comfeed PARS	50	20 gram
Tepung terigu	25	10 gram
Kuning telur bebek	5	2 gram
Lemak kambing	10	4 gram
Minyak kelapa	1	0.4 gram
Minyak babi	8.9	3.55 gram
Asam kolat	0.1	0.05 gram
TOTAL	100	40 gram

Komposisi Bahan dan Energi Pakan High Fat Diet Tikus

PARS (20 gram)	Tepung Terigu "Gunung Bromo" (10 gram)	Kuning Telur Bebek (2 gram)	Lemak Kambing (4 gram)	Minyak Kelapa (0.4 gram)	Minyak Babi (3,55 gram)	Asam Kolat (0,05 gram)
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Energi	Energi	Energi	Lemak kambing = 4 x 9 = 36 kkal
$= \frac{20}{100} \times 344$	$= \frac{10}{100} \times 340$	$= \frac{2}{100} \times 398$	Minyak kelapa = 0,4 x 9 = 3,6 kkal
= 68,8 kkal	= 34 kkal	= 7,96 kkal	Minyak babi = 3,55 x 9 = 31,95 kkal
			Asam kolat = 0,05 x 9 = 0,45 kkal

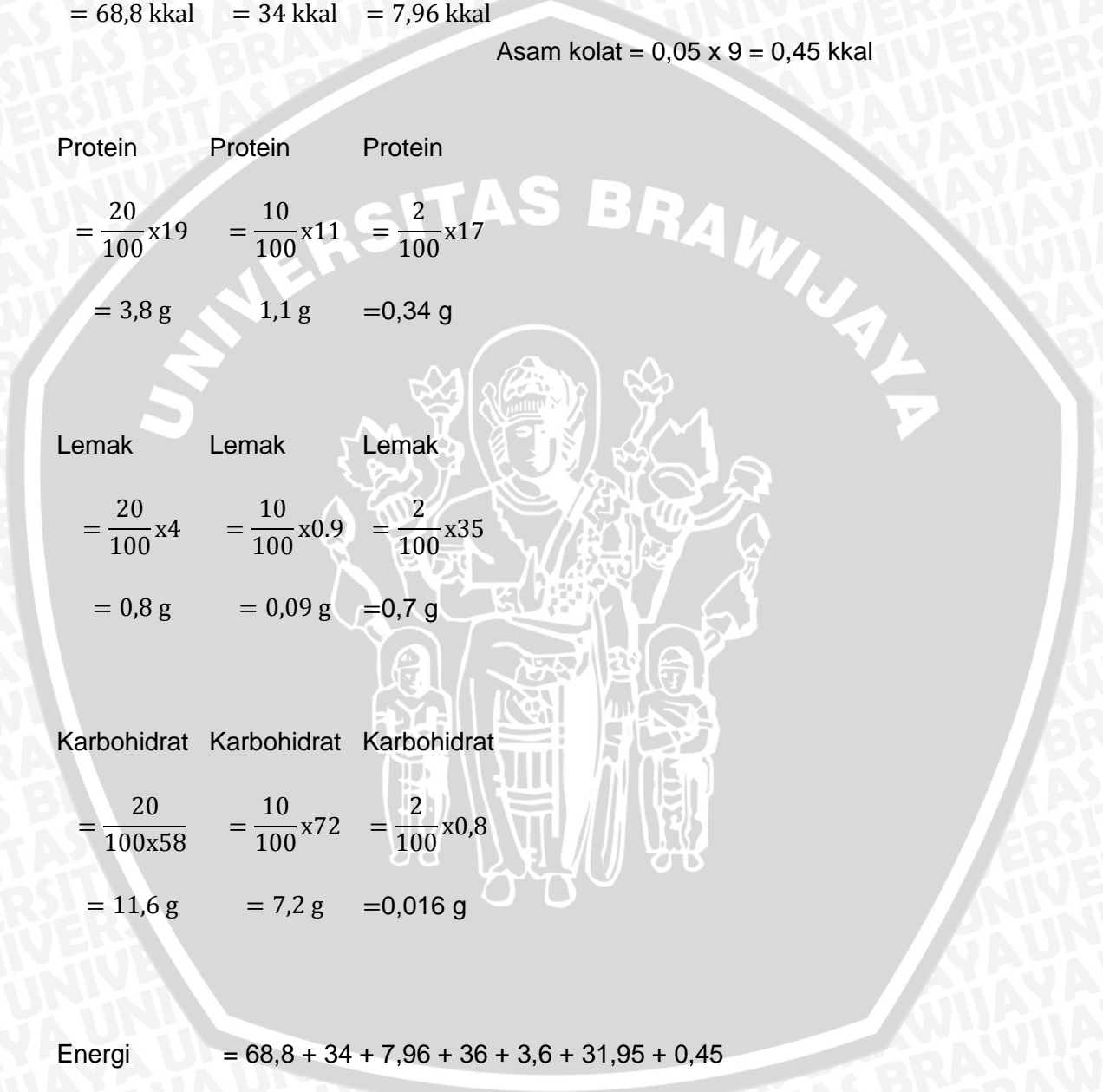
Protein	Protein	Protein
$= \frac{20}{100} \times 19$	$= \frac{10}{100} \times 11$	$= \frac{2}{100} \times 17$
= 3,8 g	1,1 g	= 0,34 g

Lemak	Lemak	Lemak
$= \frac{20}{100} \times 4$	$= \frac{10}{100} \times 0,9$	$= \frac{2}{100} \times 35$
= 0,8 g	= 0,09 g	= 0,7 g

Karbohidrat	Karbohidrat	Karbohidrat
$= \frac{20}{100} \times 58$	$= \frac{10}{100} \times 72$	$= \frac{2}{100} \times 0,8$
= 11,6 g	= 7,2 g	= 0,016 g

Energi = 68,8 + 34 + 7,96 + 36 + 3,6 + 31,95 + 0,45
 = 182,76 kkal

Protein = 3,8 + 1,1 + 0,34
 = 5,24 g
 = 20,96 kkal



$$= 11,5\%$$

Lemak = $0,8 + 0,09 + 0,7 + 4 + 0,4 + 3,55 + 0,05$

$$= 9,59 \text{ g}$$

$$= 86,31 \text{ kkal}$$

$$= 47,22\%$$

Karbohidrat = $11,6 + 7,2 + 0,016$

$$= 18,816 \text{ g}$$

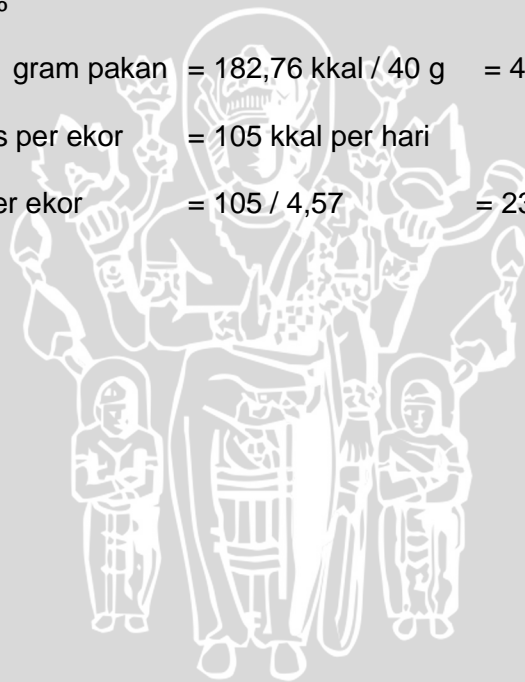
$$= 75,26 \text{ kkal}$$

$$= 41,2\%$$

Jumlah energi dalam 1 gram pakan = $182,76 \text{ kkal} / 40 \text{ g} = 4,57 \text{ kkal}$

Kebutuhan energi tikus per ekor = $105 \text{ kkal per hari}$

Jumlah pakan tikus per ekor = $105 / 4,57 = 23 \text{ gram per hari}$



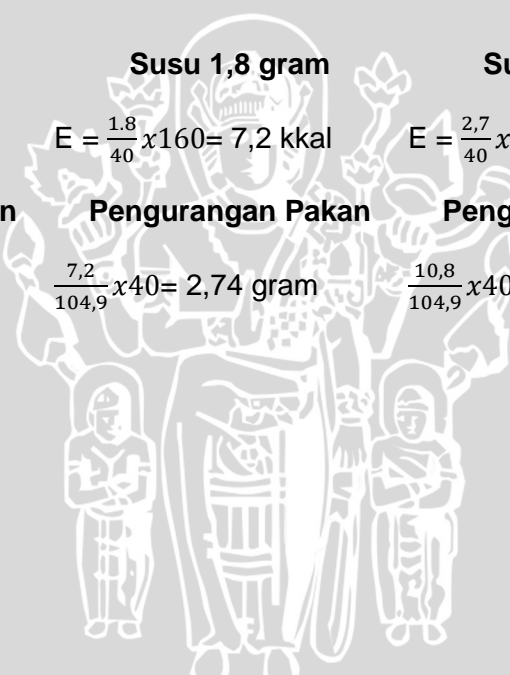
Lampiran 7

Perhitungan Pakan Isokalorik

Kandungan	Susu 40 gram	Pakan Normal 40 gram
Energi	160 kkal	104,9 kkal
Karbohidrat	28 gram	19,06 gram
Lemak	2,5 gram	0,93 gram
Protein	6 gram	5,06 gram

Susu 0,9 gram	Susu 1,8 gram	Susu 2,7 gram
$E = \frac{0,9}{40} \times 160 = 3,6 \text{ kkal}$	$E = \frac{1,8}{40} \times 160 = 7,2 \text{ kkal}$	$E = \frac{2,7}{40} \times 160 = 10,8 \text{ kkal}$

Pengurangan Pakan	Pengurangan Pakan	Pengurangan Pakan
$= \frac{3,6}{104,9} \times 40 = 1,37 \text{ gram}$	$\frac{7,2}{104,9} \times 40 = 2,74 \text{ gram}$	$\frac{10,8}{104,9} \times 40 = 4,12 \text{ gram}$



Lampiran 8

Perhitungan Kebutuhan Induksi STZ

Kelompok	Induksi STZ (ml)		Kelompok	Induksi STZ (ml)	
	STZ 40 mg/kgBB	12 mg/0,5cc		STZ 40 mg/KgBB	12 mg/0,5cc
K (+) 1	$= \frac{330}{1000} \times 40 = 13,2$ mg	$= \frac{13,2}{12} \times 0,5 = 0,55$	P1.1	$= \frac{270}{1000} \times 40 = 10,8$ mg	$= \frac{10,8}{12} \times 0,5 = 0,45$
K (+) 2	$= \frac{250}{1000} \times 40 = 10$ mg	$= \frac{10}{12} \times 0,5 = 0,42$	P1.2	$= \frac{260}{1000} \times 40 = 10,4$ mg	$= \frac{10,4}{12} \times 0,5 = 0,43$
K (+) 3	$= \frac{240}{1000} \times 40 = 9,6$ mg	$= \frac{9,6}{12} \times 0,5 = 0,4$	P1.3	$= \frac{250}{1000} \times 40 = 10$ mg	$= \frac{10}{12} \times 0,5 = 0,42$
K (+) 4	$= \frac{260}{1000} \times 40 = 10,4$ mg	$= \frac{10,4}{12} \times 0,5 = 0,43$	P1.4	$= \frac{290}{1000} \times 40 = 11,6$ mg	$= \frac{11,6}{12} \times 0,5 = 0,48$
K (+) 5	$= \frac{260}{1000} \times 40 = 10,4$ mg	$= \frac{10,4}{12} \times 0,5 = 0,43$	P1.5	$= \frac{340}{1000} \times 40 = 13,6$ mg	$= \frac{13,6}{12} \times 0,5 = 0,56$
K (+) 6	$= \frac{310}{1000} \times 40 = 12,4$ mg	$= \frac{12,4}{12} \times 0,5 = 0,51$	P1.6	$= \frac{260}{1000} \times 40 = 10,4$ mg	$= \frac{10,4}{12} \times 0,5 = 0,43$

Kelompok	Induksi STZ (ml)		Kelompok	Induksi STZ (ml)	
	STZ 40 mg/kgBB	12 mg/0,5cc		STZ 40 mg/KgBB	12 mg/0,5cc
P2.1	$= \frac{225}{1000} \times 40 = 9$ mg	$= \frac{9}{12} \times 0,5 = 0,38$	P4.1	$= \frac{350}{1000} \times 40 = 14$ mg	$= \frac{14}{12} \times 0,5 = 0,58$
P2.2	$= \frac{250}{1000} \times 40 = 10$ mg	$= \frac{10}{12} \times 0,5 = 0,42$	P4.2	$= \frac{250}{1000} \times 40 = 10$ mg	$= \frac{10}{12} \times 0,5 = 0,42$
P2.3	$= \frac{310}{1000} \times 40 = 12,4$ mg	$= \frac{12,4}{12} \times 0,5 = 0,51$	P4.3	$= \frac{220}{1000} \times 40 = 8,8$ mg	$= \frac{8,8}{12} \times 0,5 = 0,37$

$$P2.4 = \frac{265}{1000} \times 40 = 10,6 \text{ mg}$$

$$= \frac{10,6}{12} \times 0,5 = 0,44$$

$$P4.4 = \frac{320}{1000} \times 40 = 12,8 \text{ mg}$$

$$= \frac{12,8}{12} \times 0,5 = 0,53$$

$$P2.5 = \frac{350}{1000} \times 40 = 14 \text{ mg}$$

$$= \frac{14}{12} \times 0,5 = 0,58$$

$$P4.5 = \frac{220}{1000} \times 40 = 8,8 \text{ mg}$$

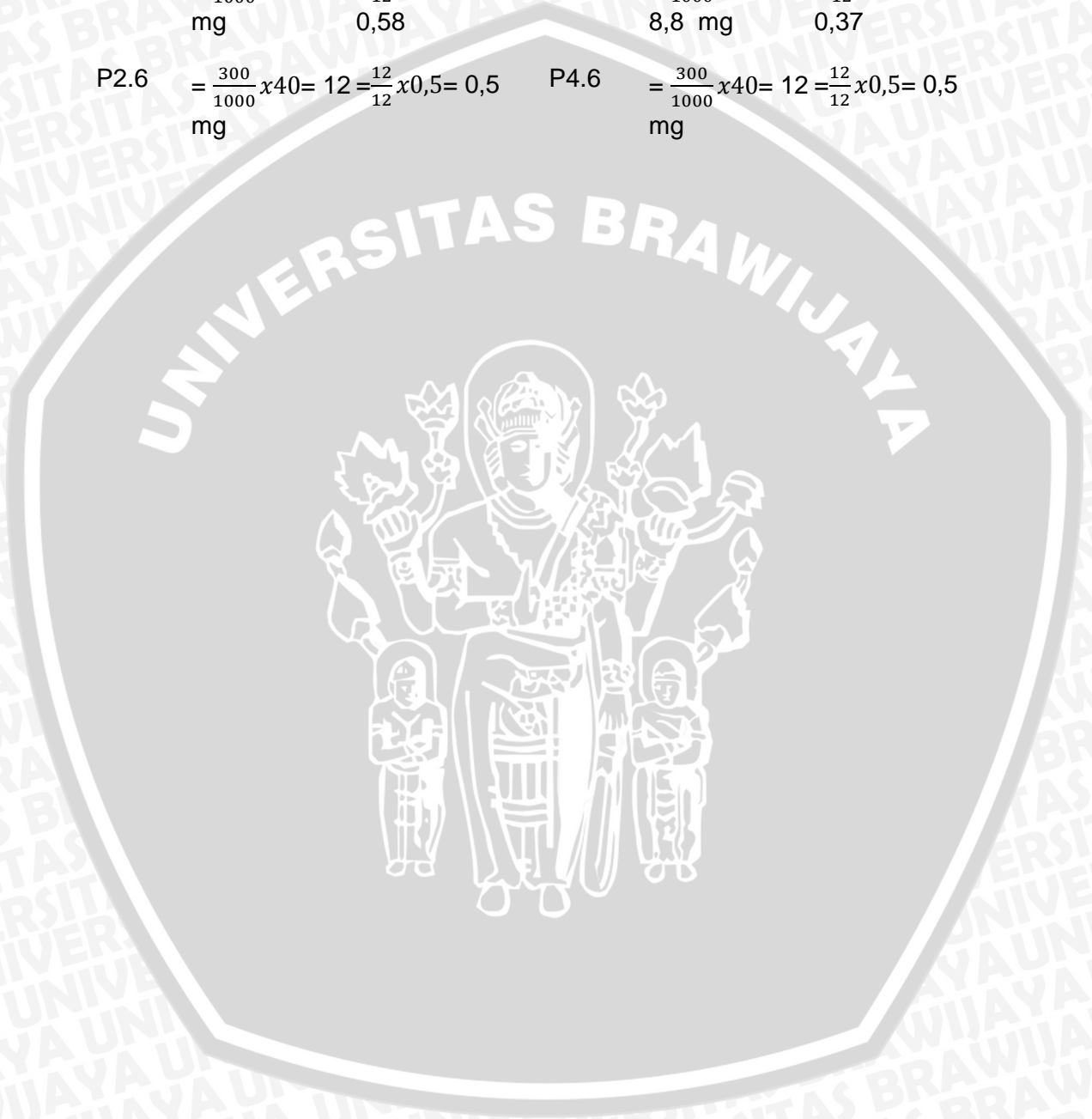
$$= \frac{8,8}{12} \times 0,5 = 0,37$$

$$P2.6 = \frac{300}{1000} \times 40 = 12 \text{ mg}$$

$$= \frac{12}{12} \times 0,5 = 0,5$$

$$P4.6 = \frac{300}{1000} \times 40 = 12 \text{ mg}$$

$$= \frac{12}{12} \times 0,5 = 0,5$$



Lampiran 9

Berat Badan Tikus Selama Perlakuan (gram)

KODE	1	2	3	4	5	6	7	8	9	10	11	12	13	Peningkatan BB	Rata-rata Peningkatan BB
K - 1	190	150	230	210	190	190	240	260	270	200	300	380	320	130	158.33±32.5 1
K - 2	200	180	260	230	210	240	270	300	300	230	350	460	330	130	
K - 3	190	160	180	210	185	200	250	300	250	160	270	320	320	130	
K - 4	200	170	190	210	200	225	280	290	300	240	370	450	400	170	
K - 5	180	180	190	180	170	180	260	270	280	200	300	380	350	190	
K - 6	200	230	280	250	240	260	290	350	320	250	350	450	390	200	
K + 1	210	220	310	300	350	330	370	400	410	300	270	320	290	80	85±95.7
K + 2	200	190	200	230	250										
K + 3	190	220	210	240	240	240	240	240	240	150	220	280	230	40	
K + 4	200	220	290	280	280	260	230	260	210	150	220	250	200	0	
K + 5	200	220	290	260	250	260	300	300	310	420	430	480	420	220	
K + 6	220	250	310	290	300	310	300	300	310	250	190				
P1 1	210	200	250	270	275	270	270	290	250	170	260	310	260	50	89.17±77.1
P1 2	190	210	280	250	230	260	260	260	290	280	220	290	270	80	
P1 3	200	200	310	290	250	250	280	240	260	240	220	260	440	240	
P1 4	225	260	300	295	300	290	310	350	380	390	350	400	260	35	
P1 5	190	200	320	310	310	340	350	320	340	310	260	310	280	90	
P1 6	200	230	310	290	240	260	290	275	300	280	290	340	240	40	

P2 1	190	190	200	200	255	225	200	200	170	170	180	220	200	10	72±50.2
P2 2	180	190	250	230	230	250	230	230	200	150	230	300	240	60	
P2 3	200	250	300	310	300	310	310	310	350	400	440	440	350	150	
P2 4	180	200	170	250	275	265	250	270	200	120	240	280	250	70	
P2 5	150	250	350	330	330	350	310	280	340	300	260				
P2 6	210	300	360	350	320	300	320	275	330	280	290	320	280	70	
P4 1	250	310	380	340	350	350	360	350	340	350	300	340	330	80	77.5±47
P4 2	210	270	320	280	260	250	290	260	290						
P4 3	180	180	210	250	250	220	200	200	180	170	180	220	200	20	
P4 4	205	270	330	290	330	320	400	410	430	300	330	350	340	135	
P4 5	170	180	250	220	220										
P4 6	195	240	350	330	280	300	280	265	300	260	220	270	270	75	

Lampiran 10

Rata-rata Asupan Pakan Tikus Selama Perlakuan (gram/hari)

KODE	MEAN (gram)	KODE	MEAN (gram)	KODE	MEAN (gram)	KODE	MEAN (gram)	KODE	MEAN (gram)
K - 1	30.25	K + 1	36.92	P1 1	36.97	P2 1	34.95	P4 1	40.54
K - 2	31.82	K + 2	RIP	P1 2	36.50	P2 2	35.11	P4 2	RIP
K - 3	28.35	K + 3	35.7	P1 3	33.88	P2 3	35.45	P4 3	32.78
K - 4	32.33	K + 4	36.6	P1 4	34.33	P2 4	36.3	P4 4	38.51
K - 5	26.89	K + 5	32.51	P1 5	39.95	P2 5	RIP	P4 5	RIP
K - 6	30.19	K + 6	RIP	P1 6	38.06	P2 6	40.51	P4 6	40.01
MEAN ± SD (gram)									
29.97±2,06		35.43±2.02		36.61±2.28		36.46±2.32		37.96±3.56	

Lampiran 11

Rata-Rata Asupan Zat Gizi Makro Tikus Selama Perlakuan

Kelompok	Energi (kkal)	KH (gram)	Lemak (gram)	Protein (gram)
K (-) 1	87.65	15.78	0.84	4
K (-) 2	91.71	16.52	0.87	4.2
K (-) 3	82.29	14.82	0.79	3.75
K (-) 4	91.75	16.55	0.86	4.24
K (-) 5	76.53	13.8	0.72	3.53
K (-) 6	87.32	15.73	0.83	3.99
STDV.S	5.89	1.06	0.06	0.27
RATA-RATA	86.21	15.53	0.82	3.95
K (+)1	116.76	17.52	3.08	4.72
K (+)3	103.63	16.71	1.86	4.76
P1 4	108.2	17.08	2.1	4.93
K (+) 5	99.85	15.44	2.38	4.15
STDV.S	7.28	0.90	0.53	0.34
RATA-RATA	107.11	16.69	2.35	4.64
P 1.1	109.24	17.25	2.12	4.98
P 1.2	108.63	17.35	2.28	4.65
P1.3	104.19	16.09	2.49	4.32
P 1.4	106.22	16.30	2.60	4.38
P 1.5	122.22	18.98	2.87	5.09
P 1.6	113.73	18.09	2.43	4.85
STDV.S	6.49	1.08	0.26	0.32
RATA-RATA	110.71	17.34	2.47	4.71
P 2.1	101.69	16.35	1.84	4.67
P 2.2	100.83	16.47	1.71	4.66
P 2.3	110.58	16.84	2.78	4.53
P 2.4	106.35	16.97	1.99	4.87
P 2.6	123.62	19.24	2.88	5.16
STDV.S	9.26	1.18	0.55	0.25
RATA-RATA	108.61	17.17	2.24	4.78
P 3.1	124.48	19.26	2.96	5.17
P 3.3	95.89	15.32	1.78	4.39
P4.4	117.56	18.29	2.74	4.91
P 3.6	122.17	19.01	2.85	5.10
RATA-RATA	115.02	17.97	2.58	4.89
STDV.S	13.08	1.81	0.54	0.35

Lampiran 12

Kadar Gula Darah Tikus Selama Perlakuan (mg/dL)

Kelompok	1	2	3	4	5	6	7	8	Mean
K (-) 1	107	Tidak Diukur						108	-
K (-) 2	98	Tidak Diukur						120	
K (-) 3	114	Tidak Diukur						102	
K (-) 5	100	Tidak Diukur						115	
K (-) 6	92	Tidak Diukur						106	
K (-) 7	88	Tidak Diukur						101	
K (+) 1	115	Tidak Diukur						100	
K (+) 2	114	437							
K (+) 3	101	600	280	149	555	599	330	413	
K (+) 4	98	368	122	381	541	564	430	399	
K (+) 5	117	369	112	277	126	128	121	178	
K (+) 6	125	491	456	463	582	395	194		
P 1.1	119	359	214	388	484	545	600	544	298.1
P 1.2	109	515	347	379	395	315	471	310	
P 1.3	97	515	159	397	313	110	136	154	
P 1.4	104	292	126	112	105	132	134	128	
P 1.5	99	428	391	404	365	282	425	250	
P 1.6	123	425	159	232	290	167	367	189	
P 2.1	116	382	191	555	581	600	600	600	320.6
P 2.2	106	541	104	471	373	408	600	506	
P 2.3	125	353	131	340	190	110	115	99	
P 2.4	109	437	121	372	318	391	600	335	
P 2.5	115	361	401	340	290	184			
P 2.6	105	360	116	177	211	116	224	174	
P 3.1	124	354	178	334	367	295	395	259	355.2
P 3.2	126	468	346	381	374				
P 3.3	102	456	376	457	514	578	541	569	
P 3.4	107	149	133	112	374	124	304	126	
P 3.5	112	455							
P 3.6	116	378	424	402	360	352	483	446	

Lampiran 13

Hasil Analisis Statistik

Berikut ini hasil analisis statistik menggunakan SPSS 16 :

1. BB AWAL

Tests of Normality^{b,c}

Kelompok Perlakuan	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
trans_BBawal P0	.256	6	.200*	.936	6	.631
P2	.264	6	.200*	.801	6	.060
P3	.289	5	.198	.840	5	.165
P4	.249	4	.	.930	4	.594

a. Lilliefors Significance
Correction

b. There are no valid cases for Berat Badan Awal Tikus (gram) when Kelompok Perlakuan = ,000. Statistics cannot be computed for this level.

c. Berat Badan Awal Tikus (gram) is constant when Kelompok Perlakuan = P1. It has been omitted.

Test of Homogeneity of Variance^{a,b}

		Levene Statistic	df1	df2	Sig.
trans_BBawal	Based on Mean	.779	3	17	.522
	Based on Median	.427	3	17	.736
	Based on Median and with adjusted df	.427	3	14.291	.737
	Based on trimmed mean	.776	3	17	.523

a. There are no valid cases for trans_BBawal when Kelompok Perlakuan = ,000. Statistics cannot be computed for this level.

b. trans_BBawal is constant when Kelompok Perlakuan = P1. It has been omitted.

2. Peningkatan Berat Badan

3. Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
BB.akhir	.126	25	.200*	.955	25	.329

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Test of Homogeneity of Variance

	Levene Statistic	df1	df2	Sig.
BB.akhir Based on Mean	.734	4	20	.579
Based on Median	.505	4	20	.732

4. Intake Pakan

Tests of Normality

	Kelompok Perlakuan	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Trans_Asupan_Pakan	P0	.230	6	.200 [*]	.933	6	.601
	P1	.317	4	.	.814	4	.129
	P2	.178	6	.200 [*]	.955	6	.777
	P3	.306	5	.141	.755	5	.033
	P4	.332	4	.	.794	4	.093

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Test of Homogeneity of Variance

	Levene Statistic	df1	df2	Sig.
Trans_Asupan_Pakan Based on Mean	.644	4	20	.637
Based on Median	.269	4	20	.894
Based on Median and with adjusted df	.269	4	14.269	.893
Based on trimmed mean	.558	4	20	.696

5. Intake Energi

Tests of Normality

	Kelompok Perlakuan	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Asupan Energi Tikus (kkal)	P0	.242	6	.200 [*]	.895	6	.346
	P1	.191	4	.	.963	4	.798
	P2	.249	6	.200 [*]	.902	6	.388
	P3	.226	5	.200 [*]	.868	5	.260
	P4	.324	4	.	.815	4	.133

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Asupan Energi Tikus (kcal)	Based on Mean	.872	4	20	.498
	Based on Median	.358	4	20	.835
	Based on Median and with adjusted df	.358	4	11.502	.834
	Based on trimmed mean	.743	4	20	.574

6. Intake Karbohidrat

7. Tests of Normality

	Kelompok Perlakuan	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
Trans_Asupan_Karbohidrat	P0	.255	6	.200*	.886	6	.300
	P1	.292	4	.	.876	4	.324
	P2	.188	6	.200*	.946	6	.706
	P3	.337	5	.064	.759	5	.036
	P4	.338	4	.	.787	4	.081

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Trans_Asupan_Karbohidrat	Based on Mean	.668	4	20	.622
	Based on Median	.235	4	20	.916
	Based on Median and with adjusted df	.235	4	13.511	.914
	Based on trimmed mean	.567	4	20	.689

8. Intake Lemak

Tests of Normality

	Kelompok Perlakuan	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Asupan Lemak Tikus (gram)	P0	.264	6	.200*	.885	6	.291
	P1	.231	4	.	.940	4	.657
	P2	.134	6	.200*	.987	6	.981

P3	.273	5	.200*	.836	5	.153
P4	.359	4	.	.790	4	.086

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Asupan Lemak Tikus (gram)	Based on Mean	4.505	4	20	.009
	Based on Median	1.560	4	20	.224
	Based on Median and with adjusted df	1.560	4	10.935	.253
	Based on trimmed mean	4.181	4	20	.013

9. Intake Protein

Tests of Normality

Kelompok Perlakuan	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Asupan Protein Tikus (gram) P0	.234	6	.200*	.917	6	.483
P1	.292	4	.	.899	4	.424
P2	.186	6	.200*	.902	6	.386
P3	.231	5	.200*	.964	5	.834
P4	.272	4	.	.868	4	.291

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Asupan Protein Tikus (gram)	Based on Mean	.284	4	20	.885
	Based on Median	.242	4	20	.911
	Based on Median and with adjusted df	.242	4	16.693	.911
	Based on trimmed mean	.270	4	20	.894

10. Kadar Glukosa Darah

Tests of Normality

kelomp	Kolmogorov-Smirnov ^a	Shapiro-Wilk
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	ok perlaku an	Statistic	df	Sig.	Statistic	df	Sig.
trans_guldar	P0	.147	6	.200	.969	6	.886
	P1	.288	4	.	.869	4	.295
	P2	.276	6	.169	.831	6	.109
	P3	.285	5	.200	.814	5	.106
	P4	.259	4	.	.895	4	.408

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
trans_guldar	Based on Mean	3.539	4	20	.024
	Based on Median	1.996	4	20	.134

11. Kadar Adiponektin Jaringan Adiposa

Kadar Adiponektin Jaringan Adiposa (pg/ml)

No	Kode	ABS	Kadar (pg/ml)
1	K-1	2,682	117,25
2	K-2	2,827	124,50
3	K-3	2,699	118,10
4	K-4	2,521	109,20
5	K-5	2,772	121,75
6	K-6	2,698	118,05
7	K-7	2,894	127,85
			119,53
8	K+1	2,340	100,15
9	K+2	2,180	92,15
10	K+3	2,259	96,10
11	K+4	2,468	106,55

12	K+5	2,189	92,60
13	K+6	2,529	109,60
14	K+7	2,331	99,70
			99,55
15	P1.1	2,701	118,20
16	P1.2	2,564	111,35
17	P1.3	2,577	112,00
18	P1.4	2,632	114,75
19	P1.5	2,575	111,90
20	P1.6	2,628	114,55
21	P1.7	2,189	92,60
			110,76
22	P2.1	2,802	123,25
23	P2.2	2,652	115,75
24	P2.3	2,325	99,40
25	P2.4	2,131	89,70
26	P2.5	2,518	109,05
27	P2.6	2,603	113,30
28	P2.7	2,514	108,85
			108,47
29	P3.1	2,267	96,50
30	P3.2	2,244	95,35
31	P3.3	2,443	105,30
32	P3.4	2,332	99,75
33	P3.5	2,363	101,30

34	P3.6	2,359	101,10
35	P3.7	2,264	96,35
			99,38

Rata-Rata Kadar Adiponektin

No	Kode	Kadar (pg/ml)
1	P0	119,529
2	P1	99,550
3	P2	110,764
4	P3	108,471
5	P4	99,379

Tests of Normality^{b,c}

Kelompok	Perlakuan	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Kadar Adiponektin Tikus (pg/ml)	P0	.225	5	.200*	.910	5	.469
	P1	.266	4	.	.898	4	.421
	P2	.368	6	.011	.747	6	.019
	P3	.245	5	.200*	.945	5	.699
	P4	.281	4	.	.874	4	.313

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

b. There are no valid cases for Kadar Adiponektin Tikus (pg/ml) when Kelompok Perlakuan = ,000. Statistics cannot be computed for this level.

c. Kadar Adiponektin Tikus (pg/ml) is constant when Kelompok Perlakuan = P0. It has been omitted.

Test of Homogeneity of Variance^{a,b}

		Levene Statistic	df1	df2	Sig.
Kadar Adiponektin Tikus (pg/ml)	Based on Mean	2.948	4	19	.047
	Based on Median	1.167	4	19	.356



Based on Median and with adjusted df	1.167	4	9.694	.383
Based on trimmed mean	2.654	4	19	.065

a. There are no valid cases for Kadar Adiponektin Tikus (pg/ml) when Kelompok Perlakuan = ,000. Statistics cannot be computed for this level.

b. Kadar Adiponektin Tikus (pg/ml) is constant when Kelompok Perlakuan = P0. It has been omitted.

Uji Kruskal Wallis

1. Semua Kelompok Perlakuan

Test Statistics ^{a,b}	
	MDA_2
Chi-Square	15.966
df	4
Asymp. Sig.	.003

a. Kruskal Wallis Test

b. Grouping Variable:
Kelompok

2. Kelompok Perlakuan Susu Bubuk

Test Statistics ^{a,b}	
	Kadar Adiponektin Tikus (pg/ml)
Chi-Square	4.496
df	3
Asymp. Sig.	.213

a. Kruskal Wallis Test

b. Grouping Variable: Kelompok Perlakuan

Uji Mann Whitney

1. UJI P0 DAN P1

Test Statistics^b

	Kadar Adiponektin Tikus (pg/ml)
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.558
Asymp. Sig. (2-tailed)	.011
Exact Sig. [2*(1-tailed Sig.)]	.010 ^a

a. Not corrected for ties.

b. Grouping Variable: Kelompok Perlakuan

2. UJI P0 DAN P2

Test Statistics^b

	Kadar Adiponektin Tikus (pg/ml)
Mann-Whitney U	3.000
Wilcoxon W	24.000
Z	-2.402
Asymp. Sig. (2-tailed)	.016
Exact Sig. [2*(1-tailed Sig.)]	.015 ^a

a. Not corrected for ties.

b. Grouping Variable: Kelompok Perlakuan

3. UJI P0 DAN P3

Test Statistics^b

	Kadar Adiponektin Tikus (pg/ml)
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Mann-Whitney U	4.000
Wilcoxon W	19.000
Z	-2.008
Asymp. Sig. (2-tailed)	.045
Exact Sig. [2*(1-tailed Sig.)]	.052 ^a

a. Not corrected for ties.

b. Grouping Variable: Kelompok Perlakuan

4. UJI P0 DAN P4

Test Statistics ^b	
	Kadar Adiponektin Tikus (pg/ml)
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.558
Asymp. Sig. (2-tailed)	.011
Exact Sig. [2*(1-tailed Sig.)]	.010 ^a

a. Not corrected for ties.

b. Grouping Variable: Kelompok Perlakuan

5. UJI P1 DAN P2

Test Statistics ^b	
	Kadar Adiponektin Tikus (pg/ml)
Mann-Whitney U	3.500
Wilcoxon W	13.500
Z	-1.818
Asymp. Sig. (2-tailed)	.069
Exact Sig. [2*(1-tailed Sig.)]	.067 ^a

a. Not corrected for ties.

b. Grouping Variable: Kelompok Perlakuan



6. UJI P1 DAN P3

Test Statistics ^b	
	Kadar Adiponektin Tikus (pg/ml)
Mann-Whitney U	6.000
Wilcoxon W	16.000
Z	-.980
Asymp. Sig. (2-tailed)	.327
Exact Sig. [2*(1-tailed Sig.)]	.413 ^a

a. Not corrected for ties.

b. Grouping Variable: Kelompok Perlakuan

7. P1 DAN P4

Test Statistics ^b	
	Kadar Adiponektin Tikus (pg/ml)
Mann-Whitney U	4.000
Wilcoxon W	14.000
Z	-1.155
Asymp. Sig. (2-tailed)	.248
Exact Sig. [2*(1-tailed Sig.)]	.343 ^a

a. Not corrected for ties.

b. Grouping Variable: Kelompok Perlakuan

8. P2 DAN P3

Test Statistics ^b	
	Kadar Adiponektin Tikus (pg/ml)
Mann-Whitney U	15.000
Wilcoxon W	30.000



Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^a

a. Not corrected for ties.

b. Grouping Variable: Kelompok Perlakuan

9. P2 DAN P4

Test Statistics^b

	Kadar Adiponektin Tikus (pg/ml)
Mann-Whitney U	4.000
Wilcoxon W	14.000
Z	-1.706
Asymp. Sig. (2-tailed)	.088
Exact Sig. [2*(1-tailed Sig.)]	.114 ^a

a. Not corrected for ties.

b. Grouping Variable: Kelompok Perlakuan

10. P3 DAN P4

Test Statistics^b

	Kadar Adiponektin Tikus (pg/ml)
Mann-Whitney U	6.000
Wilcoxon W	16.000
Z	-.980
Asymp. Sig. (2-tailed)	.327
Exact Sig. [2*(1-tailed Sig.)]	.413 ^a













a. Not corrected for ties.

b. Grouping Variable: Kelompok Perlakuan



Lampiran 14

Dokumentasi Penelitian

<p>Tikus Penelitian</p> 	<p>Pakan Tikus</p> 	<p>Kandang Tikus</p> 
<p>Induksi STZ</p> 	<p>Cek Gula Darah</p> 	<p>Pembedahan Tikus</p> 
<p>Penimbangan Organ</p>	<p>Incubator Sampel Organ</p>	<p>Sentrifugasi</p>
		
<p>Penambahan Bahan kedalam Sampel</p>	<p>Hasil Homegenasi Organ</p>	<p>Hasil Inkubasi dan Sentrifugasi Sampel</p>
		



KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
 THE MINISTRY OF EDUCATION AND CULTURE
 FAKULTAS KEDOKTERAN UNIVERSITAS BRAWIJAYA
 FACULTY OF MEDICINE UNIVERSITY OF BRAWIJAYA
 KOMISI ETIK PENELITIAN KESEHATAN
 HEALTH RESEARCH ETHICS COMMITTEE
 Jalan Veteran Malang – 65145
 Telp./ Fax. (62) 341 - 553930

KETERANGAN KELAIKAN ETIK
 ("ETHICAL CLEARANCE")

No. 566 / EC / KEPK / 12 / 2013

KOMISI ETIK PENELITIAN KESEHATAN FAKULTAS KEDOKTERAN UNIVERSITAS BRAWIJAYA, SETELAH MEMPELAJARI DENGAN SEKSAMA RANCANGAN PENELITIAN YANG DIUSULKAN, DENGAN INI MENYATAKAN BAHWA PENELITIAN DENGAN

JUDUL : Efek Susu Sapi Bubuk Terhadap Profil Lemak, Dan Marker
 Inflamasi Tikus Model Diabetes

PENELITI UTAMA : Fajar Ari Nugroho, S.Gz, M.Kes

ANGGOTA : Adi Lukas Kurniawan Ni Kadek Yosi Susilayanti
 Eridha Ayu Triwardhani Zahrina Tresna Wahidin
 Nindy Sabrina Zakia Umami
 Olga Lona Magdalena W Martha Triaswinarni Y
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 Universitas Brawijaya

TEMPAT PENELITIAN : Laboratorium Sentra Ilmu Hayati (LSIH) Universitas
 Brawijaya Malang

DINYATAKAN LAIK ETIK.

Malang, 20 DEC 2013
 Ketua,
 Komisi Etik Penelitian Kesehatan

Prof-Dr.dr. Moch. Istiadjid ES, SpS, SpBS, M.Hum

Catatan :

Keterangan Laik Etik Ini Berlaku 1 (Satu) Tahun Sejak Tanggal Dikeluarkan
 Pada Akhir Penelitian, Laporan Pelaksanaan Penelitian Harus Diserahkan Kepada KEPK-FKUB
 Dalam Bentuk Soft Copy. Jika Ada Perubahan Protokol Dan / Atau Perpanjangan Penelitian, Harus
 Mengajukan Kembali Permohonan Kajian Etik Penelitian (Amandemen Protokol)