

Lampiran 1. *Etichal Clearence*



KOMISI ETIK PENELITIAN KESEHATAN POLITEKNIK KESEHATAN KEMENKES MALANG

REKOMENDASI PERSETUJUAN ETIK *ETHICAL APPROVAL RECOMMENDATION* Reg.No.: 255 / KEPK-POLKESMA/2017

Komisi Etik Penelitian Kesehatan Politeknik Kemenkes Malang telah menyelenggarakan Pertemuan pada tanggal 02 Juni 2017 untuk membahas protokol penelitian

The Ethic Committee of Polytechnic of Health The Ministry of Health in Malang has convened a meeting on June 2nd 2017 to discuss the research protocol

Judul <i>Entitled</i>	PENGARUH POLA KONSUMSI TINGGI BAHAN TAMBAHAN PANGAN (NA-BENZOAT) TERHADAP PANJANG BADAN DAN BERAT BADANTIKUS PUTIH GALUR WISTAR <i>Effect Of High Consumption Pattern Of Food Additives (Na-Benzoat) On Lenght And Weight Of White Rats Wistar Strain</i>
Peneliti <i>Researcher</i>	Rizka Nizar Kurniawati

Dan menyimpulkan bahwa protokol tersebut **telah memenuhi semua persyaratan etik**
And concluded that the protocol has fulfilled all ethical requirements

Malang, 05 Juni 2017

Dr. ANNASARI MUSTAFA, MSc.
Head of Committee

Lampiran 2. Randomisasi Tikus Percobaan

No.	Angka	Ranking
1.	234	4
2.	543	18
3.	456	14
4.	765	23
5.	453	13
6.	129	1
7.	634	19
8.	328	8
9.	415	11
10.	773	24
11.	225	3
12.	678	21
13.	353	9
14.	528	17
15.	439	12
16.	258	6
17.	270	7
18.	391	10
19.	481	15
20.	235	5
21.	643	20
22.	526	16
23.	712	22
24.	193	2

Lampiran 5. Data Anthropometri berat badan

	P0							(Bbakhir- Bbawal)	%
1	172	183	203	214	222	234	245	73	42,4
2	182	200	219	237	242	261	277	95	52,2
3	138	159	178	191	198	211	225	87	63,0
4	187	201	215	228	239	253	264	77	41,2
5	180	192	204	220	231	240	250	70	38,9
6	192	203	223	225	256	274	295	103	53,6
	P1								
1	158	179	212	224	232	245	256	98	62,0
2	208	203	193	201	202	204	206	-2	-1,0
3	188	201	215	236	253	259	267	79	42,0
4	167	171	180	194	202	212	223	56	33,5
5	180	182	188	189	183	185	188	8	4,4
6	175	184	192	198	202	202	204	29	16,6
	P2								
1	181	181	183	194	199	204	213	32	17,7
2	172	174	177	219	232	238	242	70	40,7
3	188	188	189	189	199	200	202	14	7,4
4	153	159	167	180	183	183	185	32	20,9
5	146	147	145	158	159	172	187	41	28,1
6	151	153	153	177	187	189	192	41	27,2
	P3								
1	133	134	135	168	179	184	198	65	48,9

2	124	158	177	224	229	230	232	108	87,1
3									
4	167	176	193	215	232	241	255	88	52,7
5	167	189	212	259	271	276	280	113	67,7
6	167	170	172	197	208	225	263	96	57,5

Lampiran 6. Data Anthropometri Panjang Badan

P0							(Bbakhir- Bbawal)	%
17	17,5	18	18,5	19,3	19,7	20,3	3,3	19,4
17,3	18,5	19,5	19,5	19,9	20,4	21,8	4,5	26,0
15	16,3	17	17,3	17,9	18,7	19,5	4,5	30,0
17,2	17,7	18	20,2	20,6	21	21,6	4,4	25,6
16	17	18,2	19,5	19,5	19,5	19,5	3,5	21,9
18,2	18,9	19,7	20	21,1	21,8	22,6	4,4	24,2
P1								
17	18	18,7	19	19,3	19,8	20,5	3,5	20,6
17	18	18	18,5	19,5	20,3	21	4	23,5
17,4	18,2	18,7	21,5	21,5	21,6	21,8	4,4	25,3
17,4	17,8	18,2	19	19,5	20,7	21,5	4,1	23,6
16	16,4	17,3	18	18	19	20	4	25,0
16	17,1	18	18,2	18,6	19	19,5	3,5	21,9
P2								
17,5	17,5	18	18	18,6	19,4	21	3,5	20,0
16	16,5	16,5	17	18,3	19,5	20	4	25,0
16,1	16,3	16,5	17	18,3	18,7	19,3	3,2	19,9
16,7	17	18	18,7	18,9	19	19,5	2,8	16,8
16,2	17	18,5	19,5	19,5	19,7	20	3,8	23,5
16,5	17	17	17,5	18	18,5	21	4,5	27,3

P3								
16	17,3	19	18,5	18,9	19,2	20,7	4,7	29,4
15	15,9	16,5	20	20	20	21,2	6,2	41,3
							0	
16	16	17,5	19	19	19	19	3	18,8
16	17,1	18,5	18,7	19,3	19,8	20	4	25,0
16	17,3	18	18	18,5	19,5	20,4	4,4	27,5




Lampiran 7. Hasil perhitungan efisiensi pakan

	BB	PB	1	2	3	4	5	6	7	RATA-RATA PAKAN	EP
P0											
1	42,4	19,4	61	65	40	51	50	43	39	49,9	85,1
2	52,2	26,0	65	64	65	57	47	43	49	55,7	93,7
3	41,2	25,6	64	45	44	48	46	42	42	47,3	87,1
4	38,9	21,9	55	58	46	44	49	39	40	47,3	82,2
5	53,6	24,2	70	64	53	49	58	44	42	54,3	98,8
	48,0	24,4	66,8	58,2	48,2	48,0	50,2	45,0	41,8	50,9	94,4
P1											
1	62,0	20,6	66	61	56	73	54	46	65	60,1	103,1
2	42,0	25,3	72	54	66	82	62	33	74	63,3	66,4
3	33,5	23,6	74	64	50	63	51	40	44	55,1	60,8
4	4,4	25,0	58	29	34	49	18	34	57	39,9	11,2
5	16,6	21,9	57	44	40	62	52	39	40	47,7	34,7
	24,9	23,3	69,0	50,5	48,5	62,2	46,5	37,8	55,0	53,2	46,8
P2											
1	17,7	20,0	52	60	41	49	42	48	37	47,0	37,6
2	40,7	25,0	39	43	36	53	47	41	46	43,6	93,4
3	7,4	19,9	51	34	39	49	29	34	31	38,1	19,5
4	20,9	16,8	53	42	58	45	29	31	24	40,3	51,9
5	28,1	23,5	70	59	60	68	40	48	44	55,6	50,5

	23,2	22,0	54,3	48,2	46,7	52,3	36,5	40,5	36,7	44,9	51,7
P3											
1	48,9	29,4	71	75	52	78	48	54	36	59,1	82,6
2	87,1	41,3	61	53	45	53	45	44	72	53,3	163,5
3	52,7	18,8	52	65	57	71	75	57	100	68,1	77,3
4	67,7	25,0	74	63	44	73	45	34	51	54,9	123,3
5	57,5	27,5	70	65	52	59	49	45	81	60,1	95,6
	51,7	23,5	65,6	53,5	41,7	55,7	43,7	46,8	68,0	59,1	87,4

Lampiran 8. Dokumentasi

Bahan		
Maizena	Biskuit	PARS
		
Natrium Benzoat	Air Mineral	Minyak Kelapa
		
Alat		
Wadah Plastik	Kawat Besi	Wadah Makan
		

Wadah Minum	Laboratorium Hewan Coba	Medline
		

Pemeliharaan dan Pengukuran



Bentuk kandang jepit dan alat penimbang	Pengelompokkan hewan berdasarkan perlakuan
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Lampiran 9. Data statistik

Uji Normalitas Data

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
BB	140	100.0%	0	.0%	140	100.0%
TB	140	100.0%	0	.0%	140	100.0%

Descriptives

		Statistic	Std. Error	
BB	Mean	2.0369E2	2.94848	
	95% Confidence Interval for Mean	Lower Bound	1.9786E2	
		Upper Bound	2.0952E2	
	5% Trimmed Mean	2.0328E2		
	Median	1.9900E2		
	Variance	1.217E3		
	Std. Deviation	3.48868E1		
	Minimum	124.00		
	Maximum	295.00		
	Range	171.00		
	Interquartile Range	49.75		
	Skewness	.314	.205	
	Kurtosis	-.342	.407	
TB	Mean	18.6300	.13445	
	95% Confidence Interval for Mean	Lower Bound	18.3642	
		Upper Bound	18.8958	
	5% Trimmed Mean	18.6079		
	Median	18.7000		
	Variance	2.531		
	Std. Deviation	1.59088		
	Minimum	15.00		
	Maximum	22.60		
	Range	7.60		
	Interquartile Range	2.25		
	Skewness	.066	.205	
	Kurtosis	-.513	.407	

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
BB	.096	140	.003	.981	140	.052
TB	.051	140	.200*	.984	140	.095

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	193.3539	210.4712	2.0369E2	2.88330	140
Residual	-7.74951E1	88.91252	.00000	34.76749	140
Std. Predicted Value	-3.586	2.351	.000	1.000	140
Std. Residual	-2.221	2.548	.000	.996	140

a. Dependent Variable: BB

UJI NORMALITAS DATA LOG BB

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
BBnormal	140	100.0%	0	.0%	140	100.0%

Descriptives

		Statistic	Std. Error	
BBnormal	Mean	2.3026	.00632	
	95% Confidence Interval for Mean	Lower Bound	2.2901	
		Upper Bound	2.3151	
	5% Trimmed Mean	2.3040		
	Median	2.2989		
	Variance	.006		
	Std. Deviation	.07474		
	Minimum	2.09		
	Maximum	2.47		
	Range	.38		
	Interquartile Range	.11		
	Skewness	-.115	.205	
	Kurtosis	-.173	.407	

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
BBnormal	.065	140	.200*	.988	140	.241

a. Lilliefors Significance Correction

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

UJI BEDA DENGAN ONE WAY ANOVA
VARIABEL ASUPAN, BERAT BADAN DAN TINGGI BADAN

Descriptives

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	
					Lower Bound	Upper Bound			
					BBnormal	P0			35
	P1	35	2.3050	.05788	.00978	2.2851	2.3248	2.20	2.43
	P2	35	2.2645	.05651	.00955	2.2450	2.2839	2.16	2.38
	P3	35	2.2935	.09570	.01618	2.2606	2.3264	2.09	2.45
	Total	140	2.3026	.07474	.00632	2.2901	2.3151	2.09	2.47
TB	P0	35	19.2857	1.57034	.26544	18.7463	19.8251	16.00	22.60
	P1	35	18.8057	1.60403	.27113	18.2547	19.3567	16.00	21.80
	P2	35	18.1200	1.35360	.22880	17.6550	18.5850	16.00	21.00
	P3	35	18.3086	1.62089	.27398	17.7518	18.8654	15.00	21.20
	Total	140	18.6300	1.59088	.13445	18.3642	18.8958	15.00	22.60

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
BBnormal	6.350	3	136	.000
TB	.319	3	136	.812

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
BBnormal	Between Groups	.125	3	.042	8.703	.000
	Within Groups	.651	136	.005		
	Total	.777	139			
TB	Between Groups	28.849	3	9.616	4.050	.009
	Within Groups	322.945	136	2.375		
	Total	351.794	139			

Uji Normalitas Asupan

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Asupan	140	100.0%	0	.0%	140	100.0%

Descriptives

			Statistic	Std. Error
Asupan	Mean		12.6179	.29184
	95% Confidence Interval for Mean	Lower Bound	12.0408	
		Upper Bound	13.1949	
	5% Trimmed Mean		12.5218	
	Median		12.2500	
	Variance		11.924	
	Std. Deviation		3.45311	
	Minimum		4.50	
	Maximum		25.00	
	Range		20.50	
	Interquartile Range		4.25	
	Skewness		.559	.205
	Kurtosis		.799	.407

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Asupan	.092	140	.006	.977	140	.017

Post Hoc Tests

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
BBnormal	P0	P1	.04270	.01654	.053	-.0003	.0857
		P2	.08320*	.01654	.000	.0402	.1262
		P3	.05417*	.01654	.007	.0111	.0972
	P1	P0	-.04270	.01654	.053	-.0857	.0003
		P2	.04050	.01654	.073	-.0025	.0835
		P3	.01147	.01654	.899	-.0316	.0545
	P2	P0	-.08320*	.01654	.000	-.1262	-.0402
		P1	-.04050	.01654	.073	-.0835	.0025
		P3	-.02902	.01654	.300	-.0721	.0140
	P3	P0	-.05417*	.01654	.007	-.0972	-.0111
		P1	-.01147	.01654	.899	-.0545	.0316
		P2	.02902	.01654	.300	-.0140	.0721
TB	P0	P1	.48000	.36836	.563	-.4781	1.4381
		P2	1.16571*	.36836	.010	.2076	2.1239
		P3	.97714*	.36836	.044	.0190	1.9353
	P1	P0	-.48000	.36836	.563	-1.4381	.4781
		P2	.68571	.36836	.250	-.2724	1.6439
		P3	.49714	.36836	.533	-.4610	1.4553
	P2	P0	-1.16571*	.36836	.010	-2.1239	-.2076
		P1	-.68571	.36836	.250	-1.6439	.2724
		P3	-.18857	.36836	.956	-1.1467	.7696
	P3	P0	-.97714*	.36836	.044	-1.9353	-.0190
		P1	-.49714	.36836	.533	-1.4553	.4610
		P2	.18857	.36836	.956	-.7696	1.1467

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

BBnormal

Tukey HSD

Perlakuan	N	Subset for alpha = 0.05	
		1	2
P2	35	2.2645	
P3	35	2.2935	
P1	35	2.3050	2.3050
P0	35		2.3477
Sig.		.073	.053

Means for groups in homogeneous subsets are displayed.

TB

Tukey HSD

Perlakuan	N	Subset for alpha = 0.05	
		1	2
P2	35	18.1200	
P3	35	18.3086	
P1	35	18.8057	18.8057
P0	35		19.2857
Sig.		.250	.563

Means for groups in homogeneous subsets are displayed.

Asupan

Descriptives

Asupan

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					P0	5		
P1	5	13.0940	1.90280	.85096	10.7314	15.4566	10.17	15.00
P2	5	11.4600	1.54902	.69274	9.5366	13.3834	10.00	13.90
P3	5	14.7780	1.27457	.57000	13.1954	16.3606	13.43	16.73
Total	20	13.0660	1.80017	.40253	12.2235	13.9085	10.00	16.73

Test of Homogeneity of Variances

Asupan

Levene Statistic	df1	df2	Sig.
.801	3	16	.512

ANOVA

Asupan	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	27.645	3	9.215	4.346	.020
Within Groups	33.927	16	2.120		
Total	61.571	19			