

APPENDIX

Appendix 1

Group	Rat	Number of Epithelial Cells	Number of Cells with Vacuoles	Percentage of Cells with Vacuole (%)
A	1	890	0	0
	2	846	2	0.2364
	3	947	0	0
	4	937	0	0
	5	882	4	0.4535
	6	621	0	0
	7	1003	0	0
	8	840	0	0
B	1	852	28	3.2864
	2	855	10	1.1696
	3	749	8	1.0681
	4	1039	8	0.7700
	5	693	4	0.5772
	6	997	15	1.5045
	7	1048	7	0.6679
	8	940	14	1.4894
C	1	951	25	2.6288
	2	849	23	2.7091
	3	705	10	1.4184
	4	669	28	4.1854
	5	658	18	2.7356
	6	618	9	1.4563
	7	797	13	1.6311
D	1	1177	42	3.5684
	2	832	32	3.8462
	3	893	44	4.9272
	4	831	41	4.9338
	5	809	41	5.0680

Appendix 2

Ranks

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Result	.182	28	.018	.882	28	.004

Appendix 3

Test of Homogeneity of Variances

Result

Levene Statistic	df1	df2	Sig.
2.988	3	24	.051

Appendix 4

Kruskall Wallis Test (H_0 is rejected and H_1 is accepted, if value of asymp sig. < 0.05)

Experiment	N	Mean Rank
A	8	4.50
B	8	13.75
C	7	18.86
D	5	25.60
Total	28	

Test Statistics ^{a,b}	
	Result
Chi-Square	23.179
df	3
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable: perlakuan

Appendix 5

Mann Whitney Test

(comparisons among experimental groups that produce significant changes, if sig.<0.05)

a. A and B

Ranks			
Experiment	N	Mean Rank	Sum of Ranks
Result	A	4.50	36.00
	B	12.50	100.00
Total	16		

Test Statistics ^a	
	Result
Mann-Whitney U	.000
Wilcoxon W	36.000
Z	-3.451
Asymp. Sig. (2-tailed)	.001
Exact Sig. [2*(1-tailed Sig.)]	.000 ^a

a. Grouping Variable: perlakuan

b. Not corrected for ties.

b. A and C

Ranks

Experiment	N	Mean Rank	Sum of Ranks
A	8	4.50	36.00
C	7	12.00	84.00
Total	15		

Test Statistics^a

	Result
Mann-Whitney U	.000
Wilcoxon W	36.000
Z	-3.347
Asymp. Sig. (2-tailed)	.001
Exact Sig. [2*(1-tailed Sig.)]	.000 ^a

a. Grouping Variable: perlakuan

b. Not corrected for ties.

c. A and D

Ranks			
Treatment	N	Mean Rank	Sum of Ranks
A	8	4.50	36.00
D	5	11.00	55.00
Total	13		

Test Statistics ^a	
	Result
Mann-Whitney U	.000
Wilcoxon W	36.000
Z	-3.079
Asymp. Sig. (2-tailed)	.002
Exact Sig. [2*(1-tailed Sig.)]	.002 ^a

a. Grouping Variable: perlakuan

b. Not corrected for ties.

d. B and C

Ranks			
Experiment	N	Mean Rank	Sum of Ranks
Result	B	5.75	46.00
	C	10.57	74.00
Total	15		

Test Statistics ^a	
	Result
Mann-Whitney U	10.000
Wilcoxon W	46.000
Z	-2.083
Asymp. Sig. (2-tailed)	.037
Exact Sig. [2*(1-tailed Sig.)]	.040 ^a

a. Grouping Variable: perlakuan

b. Not corrected for ties.

e. B and D

Ranks			
Experiment	N	Mean Rank	Sum of Ranks
B	8	4.50	36.00
D	5	11.00	55.00
Total	13		

Test Statistics ^a	
	Result
Mann-Whitney U	.000
Wilcoxon W	36.000
Z	-2.928
Asymp. Sig. (2-tailed)	.003
Exact Sig. [2*(1-tailed Sig.)]	.002 ^a

a. Grouping Variable: perlakuan

b. Not corrected for ties.

f. C and D

Ranks			
Experiment	N	Mean Rank	Sum of Ranks
Result C	7	4.29	30.00
D	5	9.60	48.00
Total	12		

Test Statistics ^a	
	Result
Mann-Whitney U	2.000
Wilcoxon W	30.000
Z	-2.517
Asymp. Sig. (2-tailed)	.012
Exact Sig. [2*(1-tailed Sig.)]	.010 ^a

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Experiment 1	Experiment 2	P-Value
A	B	0.001*
	C	0.001*
	D	0.002*
B	C	0.037*
	D	0.003*
C	D	0.012*

(*) shows the pair that are significantly different

Appendix 6

Spearman Correlation

			Isoflavone Dosage	Number of Vacuole
Spearman's rho	Isoflavone	Correlation Coefficient	1.000	.921**
	Dosage	Sig. (2-tailed)	.	.000
		N	28	28
	Number of Vacuole	Correlation Coefficient	.921**	1.000
		Sig. (2-tailed)	.000	.
		N	28	28

** . Correlation is significant at the 0.01 level (2-tailed).

Note: r = correlation coefficient that shows the strength of correlation. Weak correlation ($r < 0.500$), moderate correlation ($r = 0.500 - 0.599$), strong correlation ($r = 0.599 - 0.799$) and very strong correlation ($r > 0.799$)

Appendix 7

Research Photos



Rat Dissection



Measuring Organ Weight



Rats in container



Preparation for Histology