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LAMPIRAN

Lampiran 1. Hasil pengamatan warna indikator (kertas pintar)

Hari		L	L	L	A	A	A	B	B	B	hue	hue	hue
	MR	67.3	65.4	68.3	21.3	22.4	20.6	17	18.6	16.3	38.76	39.70	38.35
	BTB	84.1	85.8	84.9	3.5	3.8	3.9	35	34.2	34.9	84.31	83.66	83.62
0	PR	80.6	80.9	79.2	13.7	12	14.5	60	60.2	58.9	77.22	78.73	76.17

	MR	70.3	71	69.4	20.2	19.5	19.3	14	12.8	13.8	34.92	33.28	35.57
	BTB	81.2	83.3	81.3	2.1	2.4	2.7	32	31.6	33.6	86.23	85.66	85.41
2	PR	79.2	79.7	78.5	12.1	11.3	11.6	56	57	57.4	77.87	78.79	78.57
	MR	70.7	70.3	69.7	16.5	17.7	15.8	10	10.9	10.6	31.22	31.63	33.86
	BTB	85.9	84.8	67.5	4.5	5.3	4.7	37	34.7	32.5	82.97	81.32	81.77
4	PR	80.9	80	78.9	9.9	9.2	8.9	58	58.2	57.8	80.35	81.02	81.25
	MR	70.7	69.8	71.1	14.5	15.2	15.9	11	10.9	10.6	35.91	35.64	33.69
	BTB	87	86.6	85.4	6.4	6.4	6.1	35	35.7	35.6	79.75	79.84	80.28
6	PR	79.1	81.5	78.9	5.4	5.6	4.8	56	57.9	57.2	84.51	84.48	85.20
	MR	73.9	69.4	69.5	10.6	10.7	10.4	18	19.5	17.4	59.08	61.25	59.13
	BTB	79.7	79.6	78.6	3	2.8	3.2	34	34.8	33.5	84.96	85.40	84.54
8	PR	71.8	72.1	71.3	16.8	14.4	14.2	46	46.3	45.2	69.98	72.72	72.56
	MR	69.6	68.7	67	10.5	10.8	10.5	33	33.1	32.7	72.10	71.93	72.20
	BTB	76.5	77.5	77.1	8.8	9.5	8.7	19	18.4	18.6	65.03	62.69	64.93
10	PR	59.8	61.5	61	21.8	21.5	19.4	27	28.6	28	51.39	53.07	55.28
	MR	68	69.3	67.9	10.2	9.5	9.9	43	44.9	44.1	76.57	78.05	77.35
	BTB	68.1	68.2	67.3	12.5	11.2	12.8	8.5	7.9	8.6	34.22	35.20	33.90
12	PR	52	54	54.4	27.4	27.8	29.8	18	18.1	19.5	32.71	33.07	33.20
	MR	67.1	69.4	65.6	12.1	9.5	11.1	51	48.1	49.1	76.73	78.83	77.26
	BTB	64.7	64.8	64.9	12.4	12.9	12.6	6.7	6.4	7.3	28.38	26.39	30.09
14	PR	49.9	51.4	51.5	33.4	35.6	32.7	12	12.2	13.3	20.22	18.92	22.13

Lampiran 2. Hasil analisis sidik ragam pengamatan warna indikator (kertas pintar)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
MR	.00	3	38.9367	.69212	.39960	37.2173	40.6560	38.35	39.70
	2.00	3	34.5900	1.18013	.68135	31.6584	37.5216	33.28	35.57
	4.00	3	32.2367	1.42072	.82025	28.7074	35.7659	31.22	33.86
	6.00	3	35.0800	1.21132	.69936	32.0709	38.0891	33.69	35.91
	8.00	3	59.8200	1.23867	.71515	56.7430	62.8970	59.08	61.25
	10.00	3	72.0767	.13650	.07881	71.7376	72.4158	71.93	72.20
	12.00	3	77.3233	.74036	.42745	75.4842	79.1625	76.57	78.05
	14.00	3	77.6067	1.09208	.63051	74.8938	80.3195	76.73	78.83
	Total	24	53.4588	19.45086	3.97039	45.2454	61.6721	31.22	78.83
BTB	.00	3	83.8633	.38734	.22363	82.9011	84.8255	83.62	84.31
	2.00	3	85.7667	.42028	.24265	84.7226	86.8107	85.41	86.23
	4.00	3	82.0200	.85294	.49244	79.9012	84.1388	81.32	82.97

	6.00	3	79.9567	.28361	.16374	79.2521	80.6612	79.75	80.28
	8.00	3	84.9667	.43004	.24828	83.8984	86.0349	84.54	85.40
	10.00	3	64.2167	1.32308	.76388	60.9300	67.5034	62.69	65.03
	12.00	3	34.4400	.67735	.39107	32.7574	36.1226	33.90	35.20
	14.00	3	28.2867	1.85176	1.06912	23.6866	32.8867	26.39	30.09
	Total	24	67.9396	22.60349	4.61392	58.3950	77.4842	26.39	86.23
PR	.00	3	77.3733	1.28687	.74297	74.1766	80.5701	76.17	78.73
	2.00	3	78.4100	.48042	.27737	77.2166	79.6034	77.87	78.79
	4.00	3	80.8733	.46758	.26996	79.7118	82.0349	80.35	81.25
	6.00	3	84.7300	.40731	.23516	83.7182	85.7418	84.48	85.20
	8.00	3	71.7533	1.53783	.88787	67.9331	75.5735	69.98	72.72
	10.00	3	53.2467	1.95101	1.12642	48.4001	58.0932	51.39	55.28
	12.00	3	32.9933	.25384	.14655	32.3628	33.6239	32.71	33.20
	14.00	3	20.4233	1.61463	.93221	16.4124	24.4343	18.92	22.13
	Total	24	62.4754	23.19812	4.73530	52.6797	72.2711	18.92	85.20

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
MR	Between Groups	8684.425	7	1240.632	1147.251	.000
	Within Groups	17.302	16	1.081		
	Total	8701.728	23			
BTB	Between Groups	11737.190	7	1676.741	1927.871	.000
	Within Groups	13.916	16	.870		
	Total	11751.106	23			
PR	Between Groups	12355.288	7	1765.041	1270.476	.000
	Within Groups	22.228	16	1.389		
	Total	12377.516	23			

Lampiran 3 Hasil Uji Lanjut Duncan Terhadap warna indikator (kertas pintar)

MR

Duncan[a]

		Subset for alpha = 0.05					
Time	N	1	2	3	4	5	6
4.00	3	32.2367					
2.00	3		34.5900				
6.00	3		35.0800				

.00	3			38.9367			
8.00	3				59.8200		
10.00	3					72.0767	
12.00	3						77.3233
14.00	3						77.6067
Sig.		1.000	.572	1.000	1.000	1.000	.743

BTB

Duncan[a]

		Subset for alpha = 0.05						
Time	N	1	2	3	4	5	6	7
14.00	3	28.2867						
12.00	3		34.4400					
10.00	3			64.2167				
6.00	3				79.9567			
4.00	3					82.0200		
.00	3						83.8633	
8.00	3						84.9667	84.9667
2.00	3							85.7667
Sig.		1.000	1.000	1.000	1.000	1.000	.167	.309

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

PR

Duncan[a]

		Subset for alpha = 0.05						
Time	N	1	2	3	4	5	6	7
14.00	3	20.4233						
12.00	3		32.9933					
10.00	3			53.2467				
8.00	3				71.7533			
.00	3					77.3733		
2.00	3					78.4100		
4.00	3						80.8733	
6.00	3							84.7300
Sig.		1.000	1.000	1.000	1.000	.297	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Lampiran 4. Zona daya hambat mikroba pada kemasan aktif

Sampel	**E. Coli**	**Rata-rata**	**S Aereus**	**Rata-rata**
Kontrol	0.92	0.95	0.23	0.25

	0.98		0.28	
	0.97		0.23	
	6.31		10.25	
	6.33		10.45	
P1	6.4	6.35	10.55	10.42
	8.19		10.23	
	8.3		10.33	
P2	8.42	8.30	10.44	10.33
	9.5		9.15	
	9.8		9.35	
P3	9.7	9.67	9.45	9.32
	10.7		12.88	
	10.5		13.32	
P4	10.8	10.67	12.65	12.95
	10.8		12.95	
	11		13.15	
P5	11.1	10.97	13.05	13.05

Lampiran 5. Hasil analisis sidik ragam pengamatan zona daya hambat mikroba

Descriptives

Escerechia coli

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
0	3	.9567	.03215	.01856	.8768	1.0365	.92	.98
1	3	6.3467	.04726	.02728	6.2293	6.4641	6.31	6.40
2	3	8.3033	.11504	.06642	8.0176	8.5891	8.19	8.42
3	3	9.6667	.15275	.08819	9.2872	10.0461	9.50	9.80
4	3	10.6667	.15275	.08819	10.2872	11.0461	10.50	10.80
5	3	10.9667	.15275	.08819	10.5872	11.3461	10.80	11.10
Total	18	7.8178	3.53925	.83421	6.0577	9.5778	.92	11.10

ANOVA

Ecoli

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	212.775	5	42.555	2951.785	.000
Within Groups	.173	12	.014		

Total	212.948	17			

Lampiran 6. Hasil Uji Lanjut Duncan Terhadap Zona Daya Hambat Mikroba

Saureus

Duncan[a]

		Subset for alpha = 0.05			
Consentration	N	1	2	3	4
0	3	.2467			
3	3		9.3167		
2	3			10.3333	
1	3			10.4167	
4	3				12.9500
5	3				13.0500
Sig.		1.000	1.000	.571	.498

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 3.000.

Ecoli

Duncan[a]

		Subset for alpha = 0.05					
Consentration	N	1	2	3	4	5	6
0	3	.9567					
1	3		6.3467				
2	3			8.3033			
3	3				9.6667		
4	3					10.6667	
5	3						10.9667
Sig.		1.000	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 7. Hasil pengamatan warna indikator (kertas pintar) kombinasi kemasan aktif (kemasan cerdas)

	L			A			B			Hue		
Hari	1	2	3	1	2	3	1	2	3	1	2	3
0	75.1	75.5	74.7	3.7	4.2	3.7	48.1	48.7	49	85.60	85.07	85.68
3	74.2	72.8	75.8	5	5.7	4.8	48	48.5	47.2	84.05	83.30	84.19
6	80.6	80.9	79.2	13.7	12	14.5	60.4	60.2	58.9	77.22	78.73	76.17
9	60.1	62.3	63.8	17.8	17.2	17.3	31.4	30.9	31.9	60.45	60.90	61.53

12	49.6	49.6	49.1	21.9	22.6	22.7	21.9	19.9	20.2	45.00	41.36	41.66

Lampiran 8. Hasil analisis sidik ragam pengamatan warna indikator (kertas pintar) kombinasi kemasan aktif (kemasan cerdas)

Descriptives

Indikator

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
.00	3	85.4513	.33192	.19163	84.6268	86.2758	85.07	85.68
3.00	3	83.8478	.48212	.27835	82.6502	85.0455	83.30	84.19
6.00	3	77.3723	1.28513	.74197	74.1799	80.5648	76.17	78.73
9.00	3	60.9594	.54068	.31216	59.6163	62.3026	60.45	61.53
12.00	3	45.0016	2.01771	1.16493	37.6643	47.6889	41.36	45.00
Total	15	70.0615	16.80163	4.33816	60.7571	79.3659	41.36	85.68

ANOVA

Indikator

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3939.412	4	984.853	774.541	.000
Within Groups	12.715	10	1.272		
Total	3952.127	14			

Lampiran 9. Hasil Uji Lanjut Duncan Terhadap pengamatan warna indikator (kertas pintar) kombinasi kemasan aktif (kemasan cerdas)

Indikator

Duncan[a]

Hari	N	Subset for alpha = 0.05			
		1	2	3	4
12.00	3	44.0016			
9.00	3		60.9594		

6.00	3			77.3723	
3.00	3				83.8478
.00	3				85.4513
Sig.		1.000	1.000	1.000	.112

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 10. Hasil pengamatan total bakteri (metode TPC) pada sampel daging ayam

Lama Penyimpanan	Pengenceran	Ulangan			Total Bakteri	
		1	2	3		
0	-3	84	80	79	81000	8.1 x 10^4
	-4	19	13	12		
	-5	7	3	1		
3	-3	412	397	377	576666.6667	5.7 x 10^5
	-4	55	58	60		
	-5	19	13	12		
6	-4	111	112	114	1123333.333	1.1 x 10^6
	-5	21	26	22		
	-6	0	1	2		
9	-4	TBUD	TBUD	TBUD	140333333.3	1.4 x 10^8
	-5	762	760	738		
	-6	136	132	153		
12	-5	TBUD	TBUD	TBUD	234333333.3	2.3 x 10^8
	-6	205	264	234		
	-7	19	26	13		

Lampiran 11. Hasil analisis sidik ragam pengamatan total bakteri (metode TPC) pada sampel daging ayam

Descriptives

TBC

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
0	3	81.00	2.646	1.528	74.43	87.57	79	84

3	3	57.67	2.517	1.453	51.42	63.92	55	60
6	3	112.33	1.528	.882	108.54	116.13	111	114
9	3	140.33	2.517	1.453	134.08	146.58	138	143
12	3	234.33	3.055	1.764	226.74	241.92	231	237
Total	15	125.13	63.538	16.406	89.95	160.32	55	237

ANOVA

TBC

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	56457.067	4	14114.267	2252.277	.000
Within Groups	62.667	10	6.267		
Total	56519.733	14			

Lampiran 12. Hasil Uji Duncan Terhadap pengamatan total bakteri (metode TPC) pada sampel daging ayam

TBC

Duncan[a]

		Subset for alpha = 0.05				
Time	N	1	2	3	4	5
3	3	57.67				
0	3		81.00			
6	3			112.33		
9	3				140.33	
12	3					234.33
Sig.		1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

lampiran 13. Hasil pengamatan Asam Barbiturat (TBA) pada sampel daging ayam

Lama Penyimpanan	Ulangan	TBA	Nilai TBA	Rata-rata Nilai TBA
0	1	0.013	0.03042	0.03
	2	0.013	0.03042	
	3	0.014	0.03276	
3	1	0.033	0.05382	0.06
	2	0.036	0.06084	
	3	0.034	0.05616	

6	1	0.033	0.07722	0.08
	2	0.038	0.08892	
	3	0.038	0.08892	
9	1	0.058	0.13572	0.15
	2	0.066	0.15444	
	3	0.053	0.12402	
12	1	0.058	0.20826	0.22
	2	0.066	0.22698	
	3	0.053	0.21294	

Lampiran 14. Hasil analisis sidik ragam pengamatan Asam Barbiturat (TBA) pada sampel daging ayam

Descriptives

TBA

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
					Lower Bound	Upper Bound		
0	3	.0310	.00173	.00100	.0267	.0353	.03	.03
3	3	.0570	.00361	.00208	.0480	.0660	.05	.06
6	3	.0850	.00693	.00400	.0678	.1022	.08	.09
9	3	.1380	.01510	.00872	.1005	.1755	.12	.15
12	3	.2160	.00985	.00569	.1915	.2405	.21	.23
Total	15	.1054	.06842	.01767	.0675	.1433	.03	.23

ANOVA

TBA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.065	4	.016	208.122	.000
Within Groups	.001	10	.000		
Total	.066	14			

Lampiran 15. Hasil Uji Lanjut Duncan Terhadap pengamatan Asam Barbiturat (TBA) pada sampel daging ayam

TBA

Duncan[a]

Time	N	Subset for alpha = 0.05				
		1	2	3	4	5
0	3	.0310				
3	3		.0570			

6	3			.0850		
9	3				.1380	
12	3					.2160
Sig.		1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 3.000.

lampiran 16. Hasil pengamatan *Total Volatile Basic Nitrogen* (TVBN) pada sampel daging ayam

Lama Penyimpanan	Ulangan	TVBN	Rata-rata	Nilai TVBN
0	1	0.6	0.53	11.21
	2	0.5		
	3	0.5		
3	1	0.5	0.57	14.007
	2	0.6		
	3	0.6		
6	1	0.6	0.67	22.41
	2	0.7		
	3	0.7		
9	1	0.8	0.83	36.41
	2	0.9		
	3	0.8		
12	1	0.9	1.00	50.42
	2	1		
	3	1.1		

Lampiran 17. Hasil Analisis Sidik Ragam pengamatan *Total Volatile Basic Nitrogen* (TVBN) pada sampel daging ayam

Descriptives

TVBN

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
0	3	11.2056	1.28376	.74118	8.0166	14.3946	10.09	12.61

3	3	14.0070	.97043	.56028	11.5963	16.4177	13.45	15.13
6	3	22.4112	.48522	.28014	21.2059	23.6165	21.85	22.69
9	3	36.4182	.49244	.28431	35.1949	37.6415	36.05	36.98
12	3	50.4252	1.23802	.71477	47.3498	53.5006	49.33	51.77
Total	15	26.8934	15.21130	3.92754	18.4697	35.3172	10.09	51.77

ANOVA

TVBN

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3230.172	4	807.543	877.687	.000
Within Groups	9.201	10	.920		
Total	3239.373	14			

Lampiran 18. Hasil Uji Duncan pengamatan *Total Volatil Basic Nitrogen* (TVBN) pada sampel daging ayam

TVBN

Duncan[a]

		Subset for alpha = 0.05				
Time	N	1	2	3	4	5
0	3	11.2056				
3	3		14.0070			
6	3			22.4112		
9	3				36.4182	
12	3					50.4252
Sig.		1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 19. Hasil pengamatan pH pada sampel daging ayam

Lama Penyimpanan	**Ulangan**	**pH**	**Rata-rata**
0	1	5.42	5.53
	2	5.55	
	3	5.63	
3	1	6.25	6.26
	2	6.26	
	3	6.27	
6	1	6.37	6.35

	2	6.32	
	3	6.36	
9	1	6.54	6.51
	2	6.46	
	3	6.53	
12	1	6.75	6.76
	2	6.75	
	3	6.78	

Lampiran 20. Hasil Analisis Sidik Ragam pengamatan pH pada sampel daging ayam

Descriptives

pH

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
					Lower Bound	Upper Bound		
0	3	5.5333	.10599	.06119	5.2700	5.7966	5.42	5.63
3	3	6.2600	.01000	.00577	6.2352	6.2848	6.25	6.27
6	3	6.3500	.02646	.01528	6.2843	6.4157	6.32	6.37
9	3	6.5100	.04359	.02517	6.4017	6.6183	6.46	6.54
12	3	6.7600	.01732	.01000	6.7170	6.8030	6.75	6.78
Total	15	6.2827	.42818	.11055	6.0456	6.5198	5.42	6.78

ANOVA

pH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.538	4	.635	222.912	.000
Within Groups	.028	10	.003		
Total	2.567	14			

Lampiran 21. Hasil Uji Duncan pengamatan pH pada sampel daging ayam

pH

Duncan[a]

Time	N	Subset for alpha = 0.05			
		1	2	3	4
0	3	5.5333			
3	3		6.2600		
6	3		6.3500		

9	3			6.5100	
12	3				6.7600
Sig.		1.000	.066	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

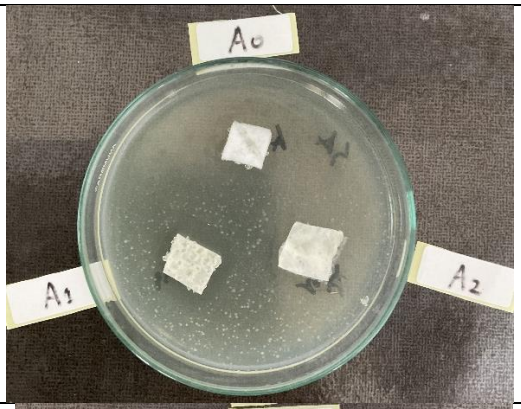
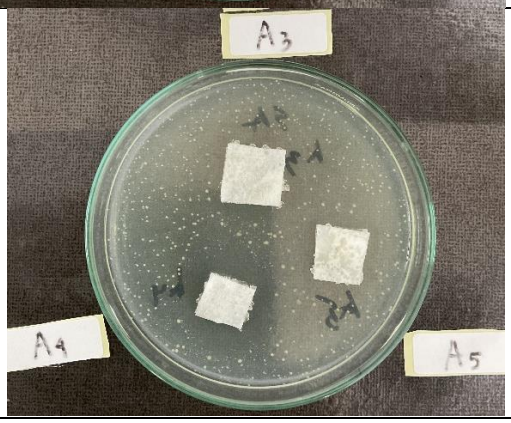
Lampiran 22. tabel korelasi antar parameter pengamatan

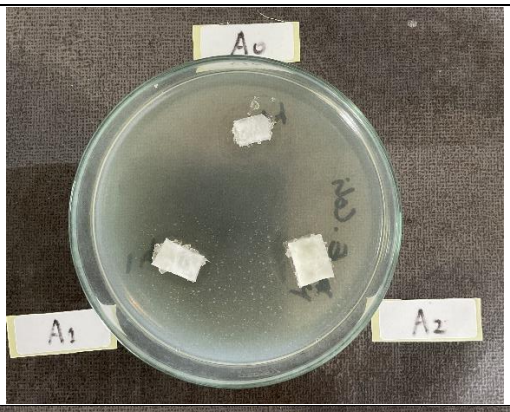
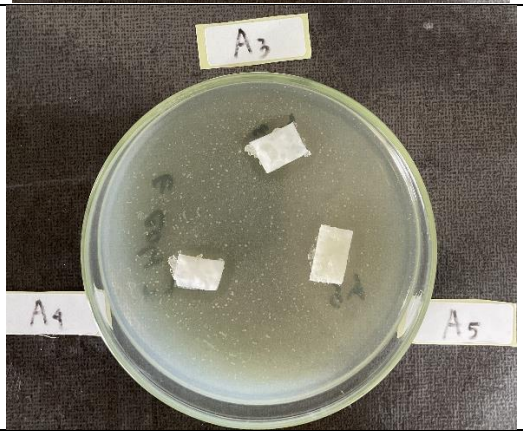
Correlations

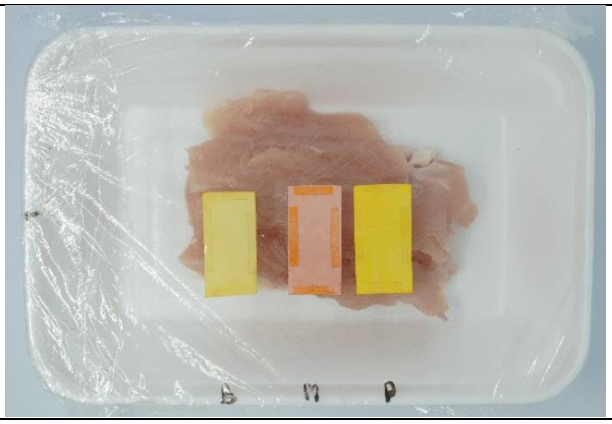
		TVBN	TBC	pH	TBA	Warna
TVBN	Pearson Correlation	1	.960**	.828**	.989**	-.993**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	15	15	15	15	15
TBC	Pearson Correlation	.960**	1	.703**	.954**	-.966**
	Sig. (2-tailed)	.000		.003	.000	.000
	N	15	15	15	15	15
pH	Pearson Correlation	.828**	.703**	1	.843**	-.796**
	Sig. (2-tailed)	.000	.003		.000	.000
	N	15	15	15	15	15
TBA	Pearson Correlation	.989**	.954**	.843**	1	-.985**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	15	15	15	15	15
Warna	Pearson Correlation	-.993**	-.966**	-.796**	-.985**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	15	15	15	15	15

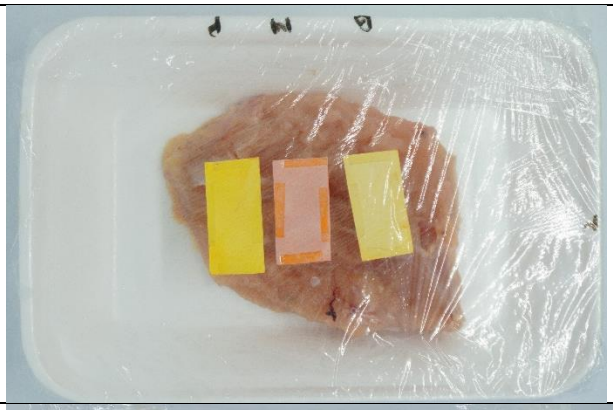
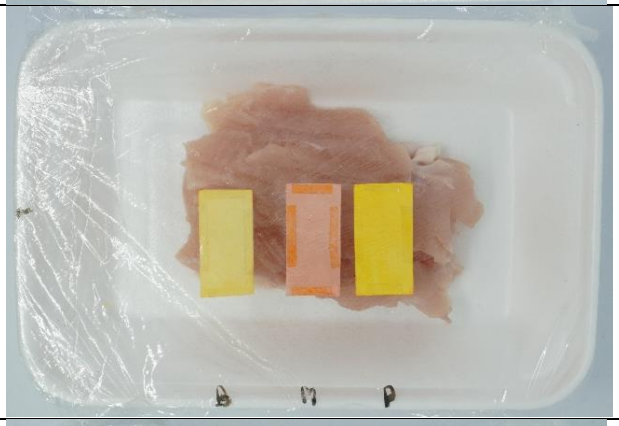
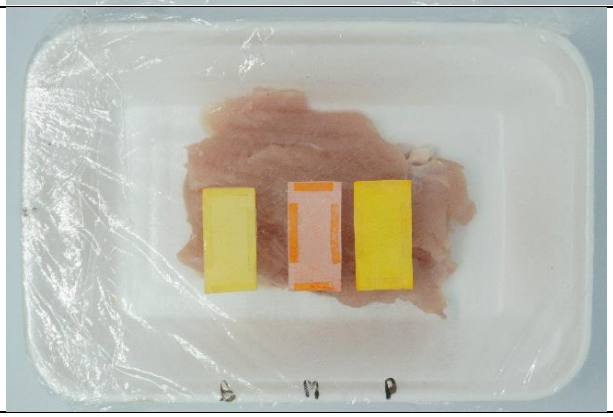
**. Correlation is significant at the 0.01 level (2-tailed).

DOKUMENTASI

Zona daya hambat mikroba		*Staphylococcus Aureus*
		*Staphylococcus Aureus*

		*Escherichia coli*
		*Escherichia coli*

Indikator (Pendahuluan)		0 hari

		2 hari
		4 Hari
		6 Hari

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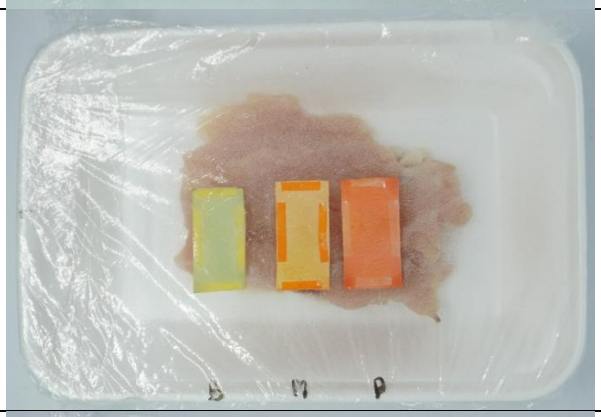
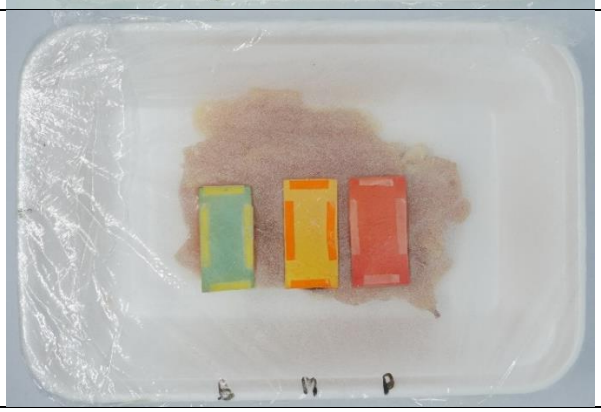
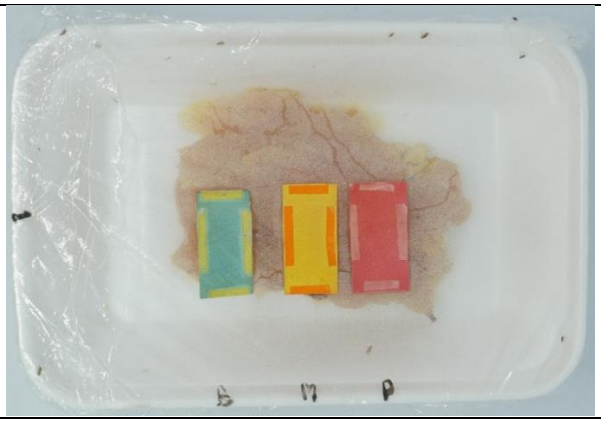
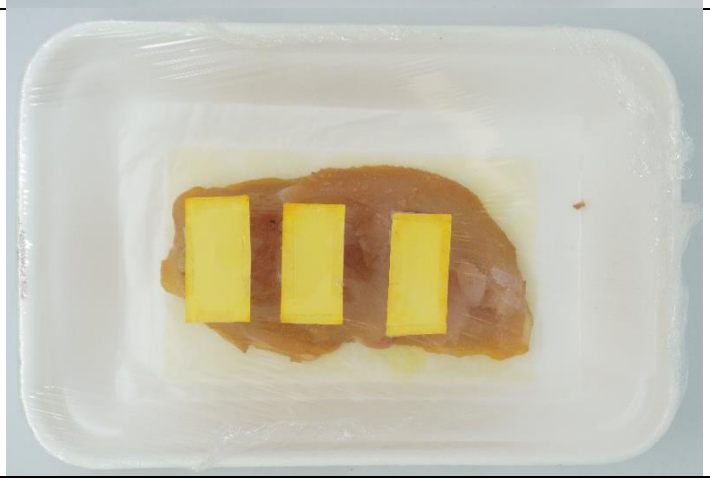
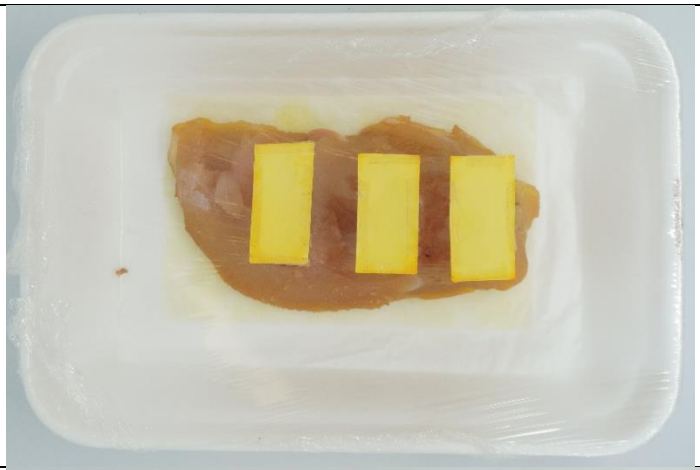
			10 Hari
			12 Hari

		14 hari

Penelitian Inti (Kombinasi Kemasan aktif dan kemasan pintar)			0 hari
			3 hari

		6 Hari
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	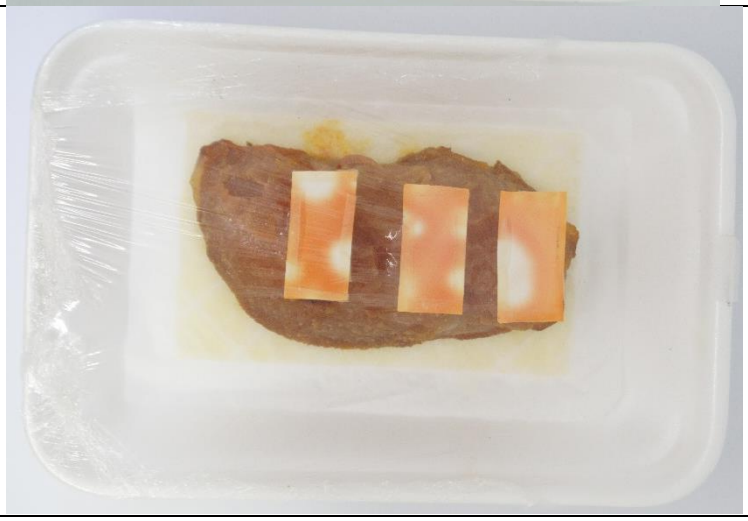	12 hari

CURICULUM VITUE

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