

LAMPIRAN



Lampiran 1 Deodorasi *S. Crassifolium* dengan HCl



Lampiran 2 Ekstraksi Alginat



Lampiran 3 Filtrasi Alginat



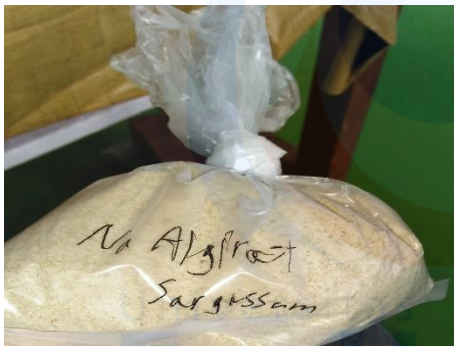
Lampiran 4 Pemutihan Alginat



Lampiran 5 Konversi Larutan Alginat Menjadi Asam Alginat



Lampiran 6 Penyaringan Asam Alginat



Lampiran 7 Sodium Alginat Kering



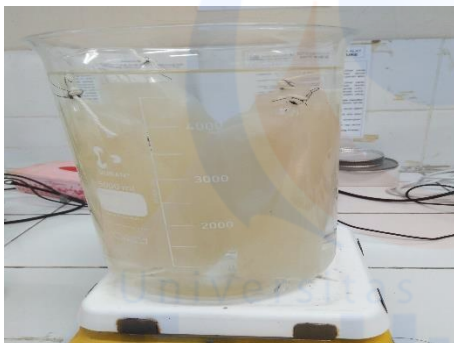
Lampiran 8 Hidrolisis Asam Oligosakarida Alginat



Lampiran 9 Netralisasi Oligosakarida Alginat



Lampiran 10 Perendaman Membran Dialisi



Lampiran 11 Dialisis Oligosakarida Alginat



Lampiran 12 Liofilisasi Larutan OSA



Lampiran 13 OSA Kimiawi Kering



Lampiran 14 Yogurt Laut Kaspia



Lampiran 15 Uji Kadar Lemak (Netralisasi pH Lemak)



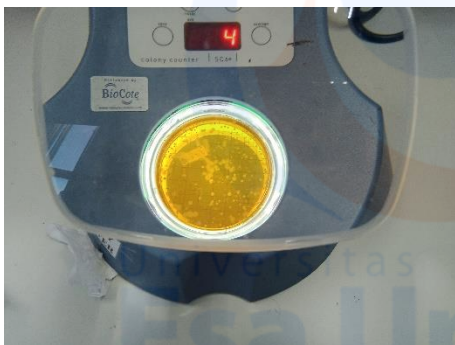
Lampiran 16 Uji Kadar Lemak (Ekstraksi Lemak Dengan Soxhletasi)



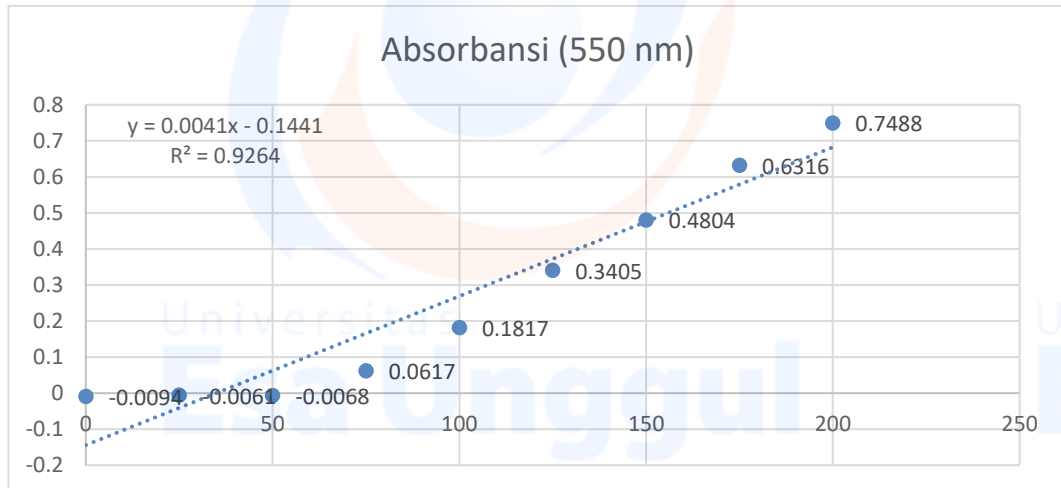
Lampiran 17 Uji Kadar Protein (Destruksi Protein)



Lampiran 18 Analisis Total Asam Laktat (Titrasi Asam-Basa)



Lampiran 19 Uji Total Plate Count (Yogurt Formulasi)



Lampiran 20 Kurva Standar Glukosa Analisis Spektrofotometri Gula Pereduksi



Lampiran 21 Pemodelan RSM Lemak

Data Uji Kadar Lemak Yogurt Untuk Formulasi RSM

Lampiran 22 Data Uji Kadar Lemak
Yogurt Untuk Formulasi RSM

Kode Sampel	Kode Pengulangan	Berat Yogurt (gr)	Berat Labu Kosong (gr)	Berat Labu + Yogurt Kering (gr)	Kadar Lemak	Mean Kadar Lemak	STD Kadar Lemak	RSD Kadar Lemak
Y0	Y0A	2.0671	65.5697	65.6369	3.25%	3.26%	0.000071	0.22%
	Y0B	2.0086	75.9586	76.0241	3.26%			
Y1	Y1A	2.0731	62.5790	62.6524	3.54%	3.52%	0.000328	0.93%
	Y1B	2.009	76.2151	76.2853	3.49%			
Y2	Y2A	8.2831	62.4678	62.736	3.24%	3.22%	0.000287	0.89%
	Y2B	8.1974	63.3494	63.6115	3.20%			
Y3	Y3A	6.0964	63.3953	63.6013	3.38%	3.43%	0.000658	1.92%
	Y3B	6.1289	65.5178	65.7306	3.47%			
Y4	Y4A	2.0683	62.4461	62.52	3.57%	3.58%	0.000038	0.11%
	Y4B	2.0121	62.5190	62.591	3.58%			
Y5	Y5A	8.1913	62.5136	62.7809	3.26%	3.24%	0.000315	0.97%
	Y5B	8.1586	71.3494	71.612	3.22%			
Y6	Y6A	8.2121	63.2362	63.5219	3.48%	3.45%	0.000390	1.13%
	Y6B	8.0288	52.0361	52.311	3.42%			
Y7	Y7A	8.5484	61.7795	62.0628	3.31%	3.27%	0.000578	1.77%
	Y7B	8.8202	54.7902	55.0753	3.23%			
Y8	Y8A	8.3571	62.1560	62.4412	3.41%	3.40%	0.000147	0.43%
	Y8B	8.5556	63.1115	63.4017	3.39%			
Y9	Y9A	6.1073	62.8426	63.0337	3.13%	3.18%	0.000709	2.23%
	Y9B	6.7290	62.1228	62.3401	3.23%			
Y10	Y10A	8.1107	53.0440	53.2959	3.11%	3.07%	0.000486	1.58%
	Y10B	8.0176	62.1387	62.3822	3.04%			
Y11	Y11A	6.3029	76.0054	76.2107	3.26%	3.22%	0.000541	1.68%
	Y11B	6.3256	68.8681	69.0693	3.18%			
Y12	Y12A	6.0486	71.8316	72.016	3.05%	3.02%	0.000350	1.16%
	Y12B	6.0051	72.0740	72.2541	3.00%			
Y13	Y13A	6.1293	72.8811	73.0647	3.00%	2.99%	0.000099	0.33%
	Y13B	6.3863	63.3704	63.5608	2.98%			
Y14	Y14A	6.0082	75.0821	75.2784	3.27%	3.15%	0.001727	5.49%
	Y14B	6.0304	71.3449	71.5272	3.02%			

Lampiran 23 Data Kadar Padatan Bukan Lemak Yogurt Untuk Formulasi RSM

Kode Sampel	Kode Pengulangan	Total Padatan	Total Padatan Bukan Lemak	Mean Padatan Bukan Lemak	STD Padatan Bukan Lemak	RSD Padatan Bukan Lemak
Y0	Y0A	11.78%	8.53%	8.77%	0.003367	3.84%
	Y0B	12.27%	9.01%			
Y1	Y1A	23.16%	6.69%	6.64%	0.000630	0.95%
	Y1B	23.02%	6.60%			
Y2	Y2A	22.36%	6.10%	6.21%	0.001514	2.44%
	Y2B	22.54%	6.32%			
Y3	Y3A	18.83%	6.42%	6.19%	0.003117	5.03%
	Y3B	18.49%	5.97%			
Y4	Y4A	16.23%	7.94%	7.99%	0.000684	0.86%
	Y4B	16.34%	8.04%			
Y5	Y5A	18.49%	6.06%	6.18%	0.001688	2.73%
	Y5B	18.49%	6.30%			
Y6	Y6A	15.23%	7.53%	7.39%	0.002019	2.73%
	Y6B	15.17%	7.24%			
Y7	Y7A	18.36%	6.02%	6.10%	0.001192	1.95%
	Y7B	18.27%	6.19%			
Y8	Y8A	18.94%	6.64%	6.69%	0.000756	1.13%
	Y8B	18.11%	6.74%			
Y9	Y9A	17.86%	5.69%	5.71%	0.000293	0.51%
	Y9B	18.00%	5.73%			
Y10	Y10A	24.01%	6.31%	6.43%	0.001757	2.73%
	Y10B	23.98%	6.55%			
Y11	Y11A	18.54%	6.25%	6.32%	0.001060	1.68%
	Y11B	18.62%	6.40%			
Y12	Y12A	18.77%	6.72%	6.87%	0.002121	3.09%
	Y12B	19.02%	7.02%			
Y13	Y13A	17.91%	5.88%	6.05%	0.002463	4.07%
	Y13B	18.24%	6.22%			
Y14	Y14A	13.83%	7.73%	7.73%	0.000024	0.03%
	Y14B	13.58%	7.73%			

Lampiran 24 Data Uji Kadar Protein Untuk Formulasi RSM

Kode Sampel	Kode Pengulangan	Kadar Protein (%)	Mean Kadar Protein (%)	STD Kadar Protein	RSD Kadar Protein
Y0	Y0A	2.673	2.65%	0.000389	1.47%
	Y0B	2.618			
Y1	Y1A	2.377	2.32%	0.000757	3.26%
	Y1B	2.27			
Y2	Y2A	2.452	2.41%	0.000629	2.61%
	Y2B	2.363			
Y3	Y3A	2.364	2.32%	0.000573	2.47%
	Y3B	2.283			
Y4	Y4A	2.298	2.33%	0.000516	2.21%
	Y4B	2.371			
Y5	Y5A	2.645	2.66%	0.000276	1.03%
	Y5B	2.684			
Y6	Y6A	2.613	2.64%	0.000339	1.29%
	Y6B	2.661			
Y7	Y7A	2.311	2.31%	0.000021	0.09%
	Y7B	2.314			
Y8	Y8A	2.216	2.27%	0.000785	3.46%
	Y8B	2.327			
Y9	Y9A	2.104	2.14%	0.000523	2.44%
	Y9B	2.178			
Y10	Y10A	2.048	2.09%	0.000573	2.74%
	Y10B	2.129			
Y11	Y11A	2.107	2.12%	0.000156	0.73%
	Y11B	2.129			
Y12	Y12A	2.632	2.64%	0.000078	0.29%
	Y12B	2.643			
Y13	Y13A	2.864	2.85%	0.000184	0.64%
	Y13B	2.838			
Y14	Y14A	2.779	2.79%	0.000127	0.46%
	Y14B	2.797			

Lampiran 25 Data Uji Kadar Air dan Abu Untuk Formulasi RSM

Kode Sampel	Kode Pengulangan	Berat (gram)				Hasil Pengujian							
		Cawan (A)	Cawan + Sampel (B)	Cawan + Sampel Kering (Uji Kadar Air) (C)	Cawan + Sampel Kering (Uji Kadar Abu) (D)	Uji Kadar Air	Mean Kadar Air	STD Kadar Air	RSD Kadar Air	Uji Kadar Abu	Mean Kadar Abu	STD Kadar Abu	RSD Kadar Abu
Y0	Y0A	29.8334	35.9268	30.5513	29.8766	88.22%	87.98%	0.0034	0.39%	0.71%	0.72%	0.000198	2.73%
	Y0B	29.8067	35.9268	30.5575	29.8518	87.73%	87.98%	0.0034	0.39%	0.74%	0.72%	0.000198	2.73%
Y1	Y1A	34.7469	41.0110	36.1974	34.7914	76.84%	76.91%	0.0010	0.12%	0.71%	0.73%	0.000287	3.93%
	Y1B	29.2277	35.7919	30.7388	29.2770	76.98%	76.91%	0.0010	0.12%	0.75%	0.73%	0.000287	3.93%
Y2	Y2A	26.8020	34.9573	28.6257	26.8530	77.64%	77.55%	0.0012	0.16%	0.63%	0.63%	0.000025	0.40%
	Y2B	41.5588	49.1277	43.2645	41.6064	77.46%	77.55%	0.0012	0.16%	0.63%	0.63%	0.000025	0.40%
Y3	Y3A	28.6791	35.1359	29.8952	28.7250	81.17%	81.34%	0.0025	0.30%	0.71%	0.70%	0.000131	1.87%
	Y3B	32.4314	38.8014	33.6090	32.4755	81.51%	81.34%	0.0025	0.30%	0.69%	0.70%	0.000131	1.87%
Y4	Y4A	33.3955	39.7375	34.4250	33.4444	83.77%	83.72%	0.0007	0.09%	0.77%	0.77%	0.000052	0.68%
	Y4B	40.1205	46.1437	41.1044	40.1665	83.66%	83.72%	0.0007	0.09%	0.76%	0.77%	0.000052	0.68%
Y5	Y5A	22.3404	28.7286	23.5214	22.3859	81.51%	81.51%	0.0000	0.00%	0.71%	0.71%	0.000039	0.55%
	Y5B	22.9191	29.3569	24.1092	22.9646	81.51%	81.51%	0.0000	0.00%	0.71%	0.71%	0.000039	0.55%
Y6	Y6A	26.3460	34.4111	27.5743	26.3995	84.77%	84.80%	0.0005	0.05%	0.66%	0.66%	0.000022	0.33%
	Y6B	28.6752	36.9602	29.9317	28.7299	84.83%	84.80%	0.0005	0.05%	0.66%	0.66%	0.000022	0.33%
Y7	Y7A	23.7772	29.7442	24.8725	23.8191	81.64%	81.69%	0.0006	0.07%	0.70%	0.69%	0.000139	2.01%
	Y7B	31.0835	37.7358	32.2989	31.1289	81.73%	81.69%	0.0006	0.07%	0.68%	0.69%	0.000139	2.01%
Y8	Y8A	27.2098	33.6588	28.4314	27.2526	81.06%	81.47%	0.0059	0.72%	0.66%	0.65%	0.000260	4.02%
	Y8B	30.7041	37.6901	31.9693	30.7479	81.89%	81.47%	0.0059	0.72%	0.63%	0.65%	0.000260	4.02%
Y9	Y9A	30.3485	36.6339	31.4710	30.3931	82.14%	82.07%	0.0010	0.12%	0.71%	0.74%	0.000369	5.02%
	Y9B	32.3669	38.7467	33.5153	32.4155	82.00%	82.07%	0.0010	0.12%	0.76%	0.74%	0.000369	5.02%
Y10	Y10A	39.4612	45.7259	40.9651	39.5015	75.99%	76.01%	0.0002	0.03%	0.64%	0.65%	0.000091	1.40%
	Y10B	24.6599	30.8930	26.1544	24.7008	76.02%	76.01%	0.0002	0.03%	0.66%	0.65%	0.000091	1.40%
Y11	Y11A	28.3948	34.5172	29.5301	28.4364	81.46%	81.42%	0.0005	0.06%	0.68%	0.69%	0.000085	1.24%
	Y11B	26.9354	33.5155	28.1604	26.9809	81.38%	81.42%	0.0005	0.06%	0.69%	0.69%	0.000085	1.24%
Y12	Y12A	26.3690	34.5176	27.8981	26.4252	81.23%	81.11%	0.0018	0.22%	0.69%	0.69%	0.000005	0.08%
	Y12B	26.8164	29.8355	27.3905	26.8372	80.98%	81.11%	0.0018	0.22%	0.69%	0.69%	0.000005	0.08%
Y13	Y13A	31.8021	38.2178	32.9512	31.8483	82.09%	81.92%	0.0024	0.29%	0.72%	0.71%	0.000125	1.76%
	Y13B	41.1681	47.7025	42.3603	41.2140	81.76%	81.92%	0.0024	0.29%	0.70%	0.71%	0.000125	1.76%
Y14	Y14A	41.5503	47.8348	42.4193	41.5973	86.17%	86.30%	0.0018	0.20%	0.75%	0.74%	0.000131	1.78%
	Y14B	30.7148	37.0498	31.5751	30.7610	86.42%	86.30%	0.0018	0.20%	0.73%	0.74%	0.000131	1.78%

Lampiran 26 Data Uji Total Asam Laktat Untuk Formulasi RSM

Kode Sampel	Kode Pengulangan	Berat Yogurt (gr)	Volume Titrasi (ml)	Kadar Asam Laktat	Mean Kadar Asam Laktat	STD Kadar Asam Laktat	RSD Kadar Asam Laktat
Y0	Y0A	20.03	19.65	0.857%	0.82%	0.000470	5.71%
	Y0B	20.3	18.37	0.791%			
Y1	Y1A	20.33	16.13	0.693%	0.69%	0.000093	1.36%
	Y1B	20.21	15.73	0.680%			
Y2	Y2A	20.3	16.43	0.707%	0.71%	0.000063	0.88%
	Y2B	20.17	16.53	0.716%			
Y3	Y3A	20.02	16.73	0.730%	0.72%	0.000114	1.57%
	Y3B	20.03	16.37	0.714%			
Y4	Y4A	20.14	17.36	0.753%	0.75%	0.000032	0.42%
	Y4B	20.19	17.3	0.749%			
Y5	Y5A	20.07	16.67	0.726%	0.72%	0.000054	0.75%
	Y5B	20.2	16.6	0.718%			
Y6	Y6A	20.03	17.77	0.775%	0.77%	0.000068	0.88%
	Y6B	20.2	17.7	0.766%			
Y7	Y7A	20.23	16.87	0.729%	0.72%	0.000119	1.65%
	Y7B	20.29	16.53	0.712%			
Y8	Y8A	20.16	17.15	0.743%	0.75%	0.000116	1.55%
	Y8B	20.16	17.53	0.760%			
Y9	Y9A	20.11	16.93	0.736%	0.73%	0.000122	1.68%
	Y9B	20.01	16.45	0.718%			
Y10	Y10A	20.1	15.67	0.681%	0.69%	0.000188	2.71%
	Y10B	20.16	16.33	0.708%			
Y11	Y11A	20.07	16.57	0.722%	0.73%	0.000157	2.15%
	Y11B	20.01	17.03	0.744%			
Y12	Y12A	20.23	16.35	0.706%	0.71%	0.000056	0.79%
	Y12B	20.03	16.37	0.714%			
Y13	Y13A	20.23	16.13	0.697%	0.71%	0.000122	1.73%
	Y13B	20.01	16.35	0.714%			
Y14	Y14A	20	17.53	0.766%	0.77%	0.000002	0.02%
	Y14B	20.12	17.63	0.766%			

Lampiran 27 Data Uji Total Bakteri Asam Laktat Yogurt Formulasi RSM

Kode Sampel	Kode Pengulangan	Jumlah Koloni	Mean Koloni	STD Koloni	CFU/g (Pengenceran 5x)
Y0	Y0A	509	500	12.7279221	5.00E+07
	Y0B	491			
YF	Y4A	285	267	25.4558441	2.67E+07
	Y4B	249			