

Lampiran 1. Spesifikasi Isolat Protein Kedelai

NANTONG SUN-GREEN BIO-TECH CO., LTD.

Certificate of Analysis

Name of Product : Isolated Soy Protein
: 2009-08-30

Date of Report

Date of Analysis : 2009-08-08 – 2009-08-14

Type of Product : D700

ITEMS	INDEX	RESULTS		
Batch Number		09080801	09080802	09080803
1. Moisture (%)	$\leq 7,0$	6,8	5,9	6,2
2. Protein (%)	$\geq 90,0$	90,9	90,7	90,8
3. Ash (%)	$\leq 5,5$	4,78	4,74	4,60
4. Fat (%)	$\leq 1,0$	0,50	0,50	0,50
5. pH	6,2-7,8	7,33	7,55	7,54
6. Granulation (%)	96,0	97,6	98,4	98,0
7. Standard Plate Count (cfu/g)	≤ 20000	2000	2100	2000
8. Col (MPN/100 g)	Negative	Negative	Negative	Negative
9. Salmonella	Negative	Negative	Negative	Negative
Production Date		2009-08-08	2009-08-08	2009-08-08
Expiry Date		2010-08-07	2010-08-07	2010-08-07
Conclusion: The quality of threee lots of goods is in conformity with the standard of Nantong SUN-GREEN Bio-Tech Co., Ltd.				

Lampiran 2. Spesifikasi Na-CMC

EST.1919

DAICEL CHEMICAL INDUSTRIES, LTD.

HIMEJI WORKS

To Whom It May Concern:

Date: Oct. 30 2006

Certificate of Analysis

Commodity: CMC DAICEL 1170H

PURCHASE ORDER NO. 26205

12,0000 Kg

Lot No.	Quantity (Kgs)	Moisture (%)	Viscosity (1% solution at 25°C, mPa.s)	pH (1% solution)	DS	Salts (as NaCl, %)
B6097672	2,250	6,2	594	6,6	0,78	0,64

Sep. 11. 2006

Certified by

DAICEL CHEMICAL INDUSTRIES, LTD.
QUALITY ASSURANCE DEPARTMENT
ABOSHI PLANT, JAPAN

Lampiran 3. Kuisisioner Uji Organoleptik Cake Beras (Uji Kesukaan)

KUISISIONER Uji KESUKAAN

Nama :
Hari/tanggal :
Produk : *Cake beras*
Parameter : Warna *crumb*, kelembutan, rasa, dan *moistness*.

Di hadapan saudara tersedia sembilan sampel *cake beras*. Saudara diminta untuk memberikan penilaian terhadap parameter warna *crumb*, kelembutan, rasa, dan *moistness* berdasarkan tingkat kesukaan terhadap sampel-sampel tersebut. Penilaian diberikan sesuai dengan keterangan nilai di bawah ini.

Deskripsi parameter:
Warna *crumb* : kesukaan pada warna *crumb cake* beras.
Kelembutan : kesukaan pada kelembutan *crumb cake* beras saat dikunyah.
Rasa : kesukaan pada rasa *crumb cake* beras saat dikunyah.
Moistness : kesukaan pada kemudahan *cake* beras saat ditelan (akan masuk ke dalam kerongkongan).

Keterangan:
1 = sangat tidak suka
2 = tidak suka
3 = agak tidak suka
4 = netral
5 = agak suka
6 = suka
7 = sangat suka

Sampel	275	985	589	749	497	385	582	246	687
Warna <i>crumb</i>									
Rasa									
Kelembutan									
<i>Moistness</i>									

Keterangan:

Lampiran 4. Data *Cake* Beras Tanpa Perlakuan

1. Kadar Air : 44,79 g/100 g bahan
2. Volume Spesifik : 3,87 cm³/g
3. Kompresibilitas : 97,86%
4. Organoleptik
 - a. Parameter warna : 4,89 (agak suka)
 - b. Parameter kelembutan : 5,13 (agak suka)
 - c. Parameter rasa : 4,88 (agak suka)
 - d. Parameter *moistness* : 4,75 (agak suka)

Lampiran 5. Kadar Air *Cake* Beras

Data Kadar Air (g/100 g) *Cake* Beras

IPK	emulsifier			TOTAL
	0,50%	0,75%	1%	
10%	45,33	46,18	47,7	416,95
	45,32	46,78	46,96	
	45,29	46,18	47,21	
total	135,94	139,14	141,87	
rata	45,31	46,38	47,29	
20%	46,71	47,31	47,96	435,96
	47,87	49,13	49,83	
	47,41	49,41	50,33	
total	141,99	145,85	148,12	
rata	47,33	48,62	49,37	
30%	47,76	49,31	51,17	453,62
	49,78	51,08	52	
	51,56	51,03	49,93	
total	149,1	151,42	153,1	
rata	49,70	50,47	51,03	
TOTAL	427,03	436,41	443,09	1306,53

Tabel ANOVA

sb var	DB	JK	KT	Fhit	Ftab ($\alpha=0,5\%$)
kelompok	2	6,17	3,08		
perlakuan	8	89,70	11,21		
IPK	2	74,74	37,37	49,05*	3,63
Emulsifier	2	14,46	7,23	9,49*	3,63
IE	4	0,50	0,13	0,16	3,01
Galat	16	12,19	0,76		
Total	26	108,06			

F hitung > F tabel, maka

1. Ada pengaruh nyata substitusi parsial telur dengan isolat protein kedelai terhadap kadar air *cake* beras.

2. Ada pengaruh nyata konsentrasi *emulsifier* yang ditambahkan terhadap kadar air *cake* beras.

Uji Beda Jarak Nyata Duncan (*Duncan's Multiple Range Test*) pada $\alpha = 5\%$

- Faktor: substitusi parsial telur dengan isolat protein kedelai

$$R_p = r_p \times S_y$$

$$S_y = \sqrt{\frac{KTG}{n}} = \sqrt{\frac{0,7618}{3}} = 0,5039$$

Perlakuan	x	10%	20%	30%	Notasi
10%	46,33	0	2,11*	4,07*	a
20%	48,44		0	1,96*	b
30%	50,40			0	c
Rp _(0,05;16)			3,00	3,15	
DMRT _(S_y*r_p)			1,51	1,59	

- Faktor: konsentrasi *emulsifier*

$$R_p = r_p \times S_y$$

$$S_y = \sqrt{\frac{KTG}{n}} = \sqrt{\frac{0,7618}{3}} = 0,5039$$

Perlakuan	x	0,5 %	0,75 %	1 %	Notasi
0,5 %	47,45	0	1,04	1,78*	a
0,75 %	48,49		0	0,74	ab
1 %	49,23			0	b
Rp _(0,05;16)			3,00	3,15	
DMRT _(S_y*r_p)			1,51	1,59	

Lampiran 6. Volume Spesifik *Cake* Beras

Data Volume Spesifik (cm³/g) *Cake* Beras

ISP	<i>emulsifier</i>			TOTAL
	0,50%	0,75%	1%	
10%	3,59	3,62	3,64	32,66
	3,57	3,68	3,76	
	3,54	3,62	3,64	
total	10,7	10,92	11,04	
rata	3,57	3,64	3,68	
20%	3,13	3,13	3,37	28,15
	2,94	3,05	3,07	
	3,1	3,15	3,21	
total	9,17	9,33	9,65	
rata	3,06	3,11	3,22	
30%	2,95	3,03	3,19	26,73
	2,88	3,02	2,99	
	2,79	2,91	2,97	
total	8,62	8,96	9,15	
rata	2,87	2,99	3,05	
TOTAL	28,49	29,21	29,84	87,54

Tabel ANOVA

sb var	DB	JK	KT	Fhit	Ftab ($\alpha=0,5\%$)
kelompok	2	0,0369	0,0184		
perlakuan	8	2,2381	0,2798		
IPK	2	2,1304	1,0652	171,6929*	3,63
<i>Emulsifier</i>	2	0,1014	0,0507	8,1720*	3,63
IE	4	0,0063	0,0016	0,2543	3,01
Galat	16	0,0993	0,0062		
TOTAL	26	2,3743			

F hitung > F tabel, maka

1. Ada pengaruh nyata substitusi parsial telur dengan isolat protein kedelai terhadap volume spesifik *cake* beras.

2. Ada pengaruh nyata konsentrasi *emulsifier* yang ditambahkan terhadap volume spesifik *cake* beras.

Uji Beda Jarak Nyata Duncan (*Duncan's Multiple Range Test*) pada

$\alpha = 5\%$

- Faktor: substitusi parsial telur dengan isolat protein kedelai

$$R_p = r_p \times S_y$$

$$S_y = \sqrt{\frac{KTG}{n}} = \sqrt{\frac{0,0062}{3}} = 0,0455$$

Perlakuan	x	30%	20%	10%	Notasi
30%	3,63	0	0,16*	0,66*	a
20%	3,13		0	0,50*	b
10%	2,97			0	c
$R_p_{(0,05;16)}$			3,00	3,15	
$DMTR_{(S_y * r_p)}$			0,14	0,14	

- Faktor: konsentrasi *emulsifier*

$$R_p = r_p \times S_y$$

$$S_y = \sqrt{\frac{KTG}{n}} = \sqrt{\frac{0,0062}{3}} = 0,0455$$

Perlakuan	x	0,5 %	0,75 %	1 %	Notasi
0,5 %	3,17	0	0,08	0,15*	a
0,75 %	3,25		0	0,07	ab
1 %	3,32			0	b
$R_p_{(0,05;16)}$			3,00	3,15	
$DMTR_{(S_y * r_p)}$			0,14	0,14	

Lampiran 7. Kompresibilitas *Cake Beras*

Data Kompresibilitas (%) *Cake Beras*

PK	emulsifier			TOTAL
	0,50%	0,75%	1%	
10%	95,45	95,45	97,73	855,8
	95,55	95,23	95,45	
	91,11	97,83	92	
total	282,11	288,51	285,18	
rata	94,04	96,17	95,06	
20%	95,24	95,23	95,29	834,73
	90,69	90,89	92,86	
	91,11	92,13	91,29	
total	277,04	278,25	279,44	
rata	92,35	92,75	93,15	
30%	95,45	95,23	91,11	803,08
	82,21	85,68	91,3	
	88	83,41	90,69	
total	265,66	264,32	273,1	
rata	88,55	88,11	91,03	
TOTAL	824,81	831,08	837,72	2493,61

Tabel ANOVA

sb var	DB	JK	KT	Fhit	Ftab ($\alpha=0,5\%$)
kelompok	2	104,26	52,13		
perlakuan	8	179,19	22,40		
IPK	2	156,48	78,24	9,85*	3,63
<i>Emulsifier</i>	2	9,26	4,63	0,58	3,63
IE	4	13,44	3,36	0,42	3,01
Galat	16	127,15	7,95		
Total	26	410,60			

F hitung > F tabel, maka

Ada pengaruh nyata substitusi parsial telur dengan isolat protein

kedelai terhadap kompresibilitas *cake* beras.

Uji Beda Jarak Nyata Duncan (*Duncan's Multiple Range Test*) pada

$\alpha = 5\%$

- Faktor: substitusi parsial telur dengan isolat protein kedelai

$$R_p = r_p \times S_y$$

$$S_y = \sqrt{\frac{KTG}{n}} = \sqrt{\frac{7,95}{3}} = 1,6275$$

Perlakuan	x	30%	20%	10%	Notasi
30%	89,23	0	3,52	5,83*	a
20%	92,75		0	2,34	ab
10%	95,09			0	b
$R_p_{(0,05;16)}$			3,00	3,15	
$DMTR_{(S_y^*r_p)}$			4,88	5,13	

Lampiran 8. Uji Organoleptik Tingkat Kesukaan terhadap Warna

Data Tingkat Kesukaan terhadap Warna *Crumb Cake* Beras

Panelis	Perlakuan (proporsi isolat protein kedelai: <i>emulsifier</i>)								
	10:0,5	10:0,75	10:1	20:0,5	20:0,75	20:1	30:0,5	30:0,75	30:1
1	6	4	7	1	7	4	2	2	1
2	5	4	6	2	5	3	2	4	2
3	7	5	6	3	4	6	4	7	3
4	7	4	3	1	6	2	2	5	3
5	4	6	7	6	7	4	3	3	3
6	4	4	4	4	6	6	4	3	3
7	6	7	4	5	6	5	5	5	5
8	7	3	5	4	4	3	3	6	6
9	4	7	6	7	5	6	6	5	6
10	7	5	6	6	6	6	5	7	7
11	7	7	5	6	6	7	6	5	6
12	5	1	6	3	2	3	3	4	4
13	2	3	5	6	4	5	5	4	4
14	6	4	2	5	2	4	2	3	1
15	5	6	6	6	6	6	6	4	5
16	5	5	5	5	5	5	5	4	5
17	6	5	6	3	4	6	5	3	4
18	7	4	6	4	5	4	5	3	6
19	3	5	4	4	5	5	7	4	3
20	5	2	4	4	5	4	2	5	4
21	5	5	4	4	6	6	4	5	3
22	3	7	4	5	2	5	6	3	2
23	6	6	6	6	5	5	6	4	5
24	4	4	4	4	4	4	4	3	3
25	4	4	5	5	3	5	4	3	6
26	4	5	6	5	5	7	3	6	3
27	5	4	5	4	3	4	3	6	4
28	4	4	3	5	4	5	4	3	5

Panelis	Perlakuan (proporsi isolat protein kedelai: <i>emulsifier</i>)								
	10:0,5	10:0,75	10:1	20:0,5	20:0,75	20:1	30:0,5	30:0,75	30:1
29	7	6	4	5	3	3	3	4	4
30	5	6	5	5	6	5	5	4	6
31	7	5	5	6	5	4	3	3	3
32	3	6	5	6	6	6	3	6	6
33	4	5	4	6	5	3	4	3	4
34	5	2	4	1	6	6	7	3	5
35	5	6	5	6	6	5	5	5	5
36	2	7	4	3	3	6	5	6	4
37	4	5	6	6	3	7	5	5	3
38	5	4	6	4	4	5	6	4	7
39	6	3	6	6	6	6	6	6	6
40	5	5	4	4	4	6	5	3	2
41	5	6	5	6	5	5	6	6	6
42	7	6	7	3	7	5	3	5	4
43	4	5	4	2	3	7	3	1	2
44	7	6	6	2	7	6	2	5	4
45	6	6	6	6	5	6	8	7	7
46	3	6	4	3	4	7	5	4	5
47	4	5	5	1	5	4	3	3	2
48	3	5	4	6	4	4	4	2	3
49	4	3	6	7	4	2	5	2	3
50	6	6	5	5	6	5	5	6	4
51	5	4	3	2	5	5	5	5	5
52	2	5	5	5	4	7	2	4	5
53	3	4	5	5	6	2	3	4	2
54	6	5	5	6	5	6	7	6	6
55	4	5	3	5	4	6	5	6	4
56	6	4	4	3	4	5	4	3	4
57	4	5	4	3	5	5	4	5	3
58	4	3	3	4	5	4	6	7	3

Panelis	Perlakuan (proporsi isolat protein kedelai: <i>emulsifier</i>)								
	10:0,5	10:0,75	10:1	20:0,5	20:0,75	20:1	30:0,5	30:0,75	30:1
59	7	7	3	3	5	1	1	2	3
60	3	6	3	6	5	4	3	6	3
61	6	6	1	2	5	2	2	4	2
62	7	6	5	6	7	6	4	5	4
63	2	4	4	4	4	3	4	3	3
64	4	3	4	5	5	4	5	4	4
65	5	7	5	3	5	6	3	3	5
66	6	6	6	6	6	6	6	6	6
67	5	5	3	4	4	6	5	3	4
68	4	5	3	4	2	4	3	5	5
69	1	2	7	1	3	5	2	4	1
70	4	3	5	6	2	4	4	7	5
71	4	6	7	5	6	4	4	6	4
72	6	7	5	7	7	5	5	7	7
73	6	5	6	6	6	5	5	5	6
74	5	7	6	6	6	4	5	3	4
75	5	2	5	2	5	6	3	2	1
76	3	5	4	5	4	6	4	4	4
77	2	4	4	6	4	4	3	5	4
78	5	6	5	5	5	5	5	5	5
79	5	6	6	6	6	6	6	6	6
80	5	6	7	5	5	7	3	3	5
81	5	6	7	5	6	6	4	5	5
82	5	4	7	5	3	5	2	4	6
83	6	4	3	5	5	4	4	6	7
84	4	3	6	4	4	4	6	6	6
85	4	4	5	3	5	5	6	5	5
86	5	5	4	6	4	4	4	5	5
87	4	4	5	4	4	4	4	6	5
88	4	6	4	4	4	4	2	4	4

Panelis	Perlakuan (proporsi isolat protein kedelai: <i>emulsifier</i>)								
	10:0,5	10:0,75	10:1	20:0,5	20:0,75	20:1	30:0,5	30:0,75	30:1
89	2	5	2	2	3	5	2	3	2
90	7	7	6	6	5	5	7	5	5
91	5	5	4	4	4	4	4	4	5
92	6	5	3	6	2	2	5	3	4
93	5	4	4	5	4	5	6	5	5
94	6	6	4	4	3	5	4	5	7
95	6	3	4	5	5	2	4	5	2
96	7	4	6	6	6	7	6	4	3
97	7	4	7	3	5	5	2	5	4
98	6	6	6	6	6	6	5	6	5
99	2	4	5	4	6	5	5	5	2
100	7	6	6	6	6	6	6	6	3
Total	487	488	484	451	474	484	426	447	420
Rata	4,87	4,88	4,84	4,51	4,74	4,84	4,26	4,470	4,20

Tabel ANOVA

sb var	db	JK	KT	Fhit	Ftab ($\alpha=5\%$)
Perlakuan	8	248,6522	31,0815	15,8873*	1,95
Galat	891	1743,1300	1,9564		
Total	899	1991,7822			

F hitung > F tabel, maka

Ada pengaruh nyata substusi parsial telur dengan isolat protein kedelai dan penambahan *emulsifier* terhadap tingkat kesukaan panelis terhadap warna *crumb cake* beras yang dihasilkan.

Uji Beda Jarak Nyata Duncan (*Duncan's Multiple Range Test*) pada $\alpha = 5\%$

$$R_p = r_p \times S_y$$

$$S_y = \sqrt{\frac{KTG}{n}} = \sqrt{\frac{1,9564}{100}} = 0,1399$$

	x	30:1	30:0,5	30:0,75	20:0,5	20:0,75	10:1	20:1	10:0,5	10:0,75	Notasi
30 : 1	4,2000	0	0,0600	0,2700	0,3100	0,5400*	0,6400*	0,6400*	0,6700*	0,6800*	a
30 : 0,5	4,2600		0	0,2100	0,2500	0,4800*	0,5800*	0,5800*	0,6100*	0,6200*	a
30 : 0,75	4,4700			0	0,0400	0,2700	0,3700	0,3700	0,4000	0,4100	ab
20 : 0,5	4,5100				0	0,2300	0,3300	0,3300	0,3600	0,3700	ab
20 : 0,75	4,7400					0	0,1000	0,1000	0,1300	0,1400	b
10 : 1	4,8400						0	0,0000	0,0300	0,0400	b
20 : 1	4,8400							0	0,0300	0,0400	b
10 : 0,5	4,8700								0	0,0100	b
10 : 0,75	4,8800									0	b
Rp _(0,05;891)			2,77	2,92	3,02	3,09	3,15	3,19	3,23	3,26	
DMTR _(Sy*rp)			0,3874	0,4084	0,4224	0,4322	0,4406	0,4462	0,4518	0,4560	

Lampiran 9. Uji Organoleptik Tingkat Kesukaan terhadap Kelembutan

Data Tingkat Kesukaan terhadap Kelembutan *Cake* Beras

Panelis	Perlakuan (proporsi isolat protein kedelai: <i>emulsifier</i>)								
	10:0,5	10:0,75	10:1	20:0,5	20:0,75	20:1	30:0,5	30:0,75	30:1
1	5	5	5	5	5	4	6	6	6
2	5	4	6	6	6	5	4	6	3
3	3	3	3	4	4	6	5	4	3
4	5	6	6	4	6	5	5	7	5
5	3	6	8	6	4	4	3	4	3
6	5	6	4	5	7	2	5	4	6
7	3	3	4	4	6	4	7	6	4
8	6	7	3	5	7	5	7	6	7
9	5	3	5	5	6	5	6	6	2
10	7	5	6	7	7	7	5	5	5
11	4	4	4	3	5	4	5	3	4
12	4	6	7	6	6	5	7	5	4
13	4	3	4	4	3	5	4	2	5
14	6	4	4	4	6	5	5	5	3
15	2	2	5	6	3	4	4	2	6
16	4	6	6	4	6	4	4	4	4
17	5	4	5	6	5	4	4	5	5
18	6	6	4	3	4	5	5	7	4
19	4	6	4	6	6	3	5	4	5
20	4	5	4	5	6	6	4	7	6
21	5	5	5	5	6	5	5	3	6
22	4	4	3	5	5	4	2	2	3
23	2	6	5	3	6	4	4	1	7
24	5	6	4	6	5	5	6	4	4
25	6	6	6	4	7	6	5	5	4
26	6	6	3	5	6	5	5	6	5
27	3	7	4	7	6	4	4	5	4
28	6	2	6	4	4	3	4	3	5

Panelis	Perlakuan (proporsi isolat protein kedelai: <i>emulsifier</i>)								
	10:0,5	10:0,75	10:1	20:0,5	20:0,75	20:1	30:0,5	30:0,75	30:1
29	6	5	3	5	6	5	6	3	5
30	5	5	6	5	6	7	5	5	6
31	6	6	5	4	6	6	5	3	2
32	6	5	6	5	6	5	5	6	4
33	5	4	4	5	5	4	5	5	5
34	6	7	4	4	6	5	6	5	4
35	7	5	7	4	3	5	3	4	4
36	5	4	6	5	4	5	6	5	5
37	5	4	4	2	5	6	4	3	3
38	5	4	4	6	4	3	3	2	4
39	4	5	5	4	5	4	3	5	2
40	7	6	7	7	7	7	6	6	7
41	5	4	6	6	6	6	5	3	5
42	1	1	7	4	1	1	7	1	7
43	6	6	7	6	6	6	3	3	7
44	4	7	5	4	2	6	6	3	5
45	6	5	6	6	5	6	4	5	4
46	4	7	7	4	4	6	8	6	5
47	6	5	5	6	4	4	5	6	5
48	3	4	4	1	2	5	2	5	2
49	6	6	6	5	6	6	6	6	5
50	4	4	5	5	5	3	6	2	3
51	3	4	4	5	6	5	6	4	4
52	5	4	6	3	5	3	2	3	2
53	5	6	6	6	7	6	6	4	3
54	4	2	4	6	7	5	1	1	4
55	5	6	7	5	7	5	4	6	6
56	6	6	7	4	7	4	3	6	3
57	7	7	6	5	7	7	6	5	6
58	3	2	4	4	4	5	3	4	2

Panelis	Perlakuan (proporsi isolat protein kedelai: <i>emulsifier</i>)								
	10:0,5	10:0,75	10:1	20:0,5	20:0,75	20:1	30:0,5	30:0,75	30:1
59	4	5	6	4	3	3	1	4	1
60	3	4	5	5	6	3	3	4	6
61	4	3	3	2	5	5	2	3	4
62	5	5	4	5	3	5	3	3	3
63	5	6	5	6	7	6	6	4	5
64	4	5	6	2	6	2	5	5	5
65	7	3	5	5	5	6	5	5	3
66	6	6	7	7	6	5	6	7	6
67	6	5	4	4	5	6	6	4	3
68	4	4	4	4	5	5	5	5	4
69	4	1	7	1	2	5	1	3	1
70	5	5	5	6	7	2	4	2	7
71	5	5	4	4	5	6	6	7	5
72	4	5	6	4	5	4	3	4	6
73	5	6	7	6	5	6	5	6	5
74	6	6	6	4	5	7	4	6	7
75	3	6	6	5	2	7	5	3	5
76	6	5	7	4	5	5	6	7	5
77	4	5	6	5	4	5	6	6	5
78	3	6	3	4	4	3	3	3	4
79	6	6	6	6	6	5	5	6	6
80	2	7	5	5	5	7	4	3	7
81	4	4	6	4	6	3	6	4	6
82	5	6	7	6	7	4	7	6	4
83	6	7	4	7	6	4	7	6	7
84	6	4	5	5	4	5	5	5	5
85	4	5	6	3	6	6	6	5	6
86	4	6	4	5	4	5	4	5	6
87	5	3	5	3	4	3	4	5	4
88	2	7	4	3	3	2	2	3	4

Panelis	Perlakuan (proporsi isolat protein kedelai: <i>emulsifier</i>)								
	10:0,5	10:0,75	10:1	20:0,5	20:0,75	20:1	30:0,5	30:0,75	30:1
89	3	3	4	2	4	5	3	5	2
90	6	6	6	3	5	3	4	2	3
91	4	4	5	5	4	3	3	4	3
92	5	5	4	4	4	5	3	5	4
93	4	6	3	4	4	5	4	5	4
94	4	3	4	3	6	4	3	4	4
95	6	4	4	4	3	3	5	6	3
96	5	6	5	6	7	5	6	7	6
97	4	3	3	3	5	5	2	4	2
98	7	6	7	6	7	6	6	6	7
99	2	2	6	7	6	3	7	6	7
100	4	2	5	5	4	5	5	7	4
Total	468	483	510	464	512	471	461	452	451
Rata	4,6800	4,8300	5,1000	4,6400	5,1200	4,7100	4,6100	4,5200	4,5100

Tabel ANOVA

sb var	db	JK	KT	Fhit	Ftab ($\alpha=5\%$)
Perlakuan	8	242,2099	30,2762	15,5321*	1,95
Galat	891	1736,8000	1,9493		
Total	899	1979,0099			

F hitung > F tabel, maka

Ada pengaruh nyata substusi parsial telur dengan isolat protein kedelai dan penambahan *emulsifier* terhadap tingkat kesukaan panelis terhadap kelembutan cake beras yang dihasilkan.

Uji Beda Jarak Nyata Duncan (*Duncan's Multiple Range Test*) pada $\alpha = 5\%$

$$R_p = r_p \times S_y$$

$$S_y = \sqrt{\frac{KTG}{n}} = \sqrt{\frac{1,9493}{100}} = 0,1396$$

	x	30 : 1	30 : 0,75	30 : 0,5	20 : 0,5	10 : 0,5	20 : 1	10 : 0,75	10 : 1	20 : 0,75	Notasi
30 : 1	4,5100	0	0,0100	0,1000	0,1300	0,1700	0,2000	0,3200	0,5900*	0,6100*	a
30 : 0,75	4,5200		0	0,0900	0,1200	0,1600	0,1900	0,3100	0,5800*	0,6000*	a
30 : 0,5	4,6100			0	0,0300	0,0700	0,1000	0,2200	0,4900*	0,5100*	a
20 : 0,5	4,6400				0	0,0400	0,0700	0,1900	0,4600*	0,4800*	a
10 : 0,5	4,6800					0	0,0300	0,1500	0,4200*	0,4400*	a
20 : 1	4,7100						0	0,1200	0,3900	0,4100	ab
10 : 0,75	4,8300							0	0,2700	0,2900	ab
10 : 1	5,1000								0	0,0200	b
20 : 0,75	5,1200									0	b
$R_p_{(0,05;891)}$			2,77	2,92	3,02	3,09	3,15	3,19	3,23	3,26	
$DMTR_{(S_y \cdot r_p)}$			0,3867	0,4077	0,4216	0,4314	0,4398	0,4454	0,4510	0,4551	

Lampiran 10. Uji Organoleptik Tingkat Kesukaan terhadap Rasa

Data Tingkat Kesukaan terhadap Rasa *Cake* Beras

Panelis	Perlakuan (proporsi isolat protein kedelai: <i>emulsifier</i>)								
	10:0,5	10:0,75	10:1	20:0,5	20:0,75	20:1	30:0,5	30:0,75	30:1
1	6	7	6	6	6	7	6	7	7
2	6	5	5	6	7	5	4	6	5
3	3	4	3	4	3	4	5	3	4
4	4	7	6	5	6	6	6	6	6
5	5	7	7	2	2	2	2	6	4
6	4	4	4	4	4	3	4	2	3
7	4	6	4	3	5	4	6	4	4
8	5	6	5	3	5	6	6	6	7
9	6	4	3	6	5	4	5	2	5
10	7	6	6	7	7	6	6	6	6
11	4	6	6	4	7	6	5	6	5
12	6	7	7	5	7	6	6	6	5
13	5	4	5	4	5	5	5	2	5
14	5	6	3	6	5	4	5	3	5
15	3	4	4	5	4	4	5	3	4
16	6	6	7	5	5	5	5	5	5
17	6	6	6	6	6	6	6	5	6
18	6	6	4	4	5	5	6	5	5
19	6	7	6	5	6	5	6	4	4
20	5	5	7	5	5	6	4	6	5
21	4	5	5	4	6	5	4	5	6
22	5	5	5	5	6	6	4	5	6
23	4	7	3	1	7	2	3	4	5
24	6	6	4	6	6	3	6	5	5
25	6	5	6	4	6	5	5	5	4
26	6	6	3	5	4	4	4	4	6
27	5	6	6	7	7	4	4	7	5
28	5	2	6	4	4	1	2	4	6

Panelis	Perlakuan (proporsi isolat protein kedelai: <i>emulsifier</i>)								
	10:0,5	10:0,75	10:1	20:0,5	20:0,75	20:1	30:0,5	30:0,75	30:1
29	4	5	3	4	4	4	5	4	5
30	7	3	6	6	5	6	4	6	6
31	6	6	7	6	7	7	6	6	5
32	7	6	6	3	6	4	4	5	4
33	5	5	4	5	5	4	5	5	5
34	7	6	5	5	6	6	5	7	4
35	7	4	7	2	4	6	3	5	5
36	6	4	4	5	4	7	4	5	4
37	4	3	3	4	4	5	3	2	5
38	2	2	6	4	3	5	6	6	5
39	3	4	6	4	5	4	5	5	2
40	4	3	4	4	3	6	3	5	4
41	1	1	7	4	7	1	6	1	7
42	5	7	5	6	6	7	6	4	6
43	7	6	6	2	2	7	2	3	1
44	4	5	6	6	4	6	5	5	7
45	5	7	7	5	5	6	8	6	6
46	4	5	5	5	4	4	6	5	3
47	4	4	5	1	2	5	3	6	4
48	5	4	4	4	6	5	6	6	5
49	4	4	6	4	4	4	6	3	4
50	5	6	6	6	5	5	6	6	6
51	5	5	6	5	6	3	2	3	1
52	4	3	6	4	6	7	2	5	4
53	3	5	6	5	7	3	2	3	4
54	6	6	7	5	6	5	4	5	5
55	6	6	7	3	7	4	6	3	5
56	6	6	6	5	5	7	4	4	5
57	4	4	5	5	6	6	4	5	4
58	5	6	5	4	4	3	1	4	2

Panelis	Perlakuan (proporsi isolat protein kedelai:emulsifier)								
	10:0,5	10:0,75	10:1	20:0,5	20:0,75	20:1	30:0,5	30:0,75	30:1
59	6	2	6	4	3	2	1	4	5
60	4	3	6	3	6	4	2	3	3
61	5	5	5	5	4	6	4	5	4
62	7	5	6	4	5	5	6	7	6
63	2	3	3	4	3	4	3	2	2
64	6	5	5	6	6	5	6	6	6
65	6	6	6	6	5	6	5	4	3
66	7	7	7	7	7	7	7	7	7
67	6	5	3	3	6	5	6	4	5
68	5	5	5	5	5	5	4	4	4
69	1	3	7	4	6	1	2	1	5
70	5	3	6	5	7	1	6	3	6
71	6	6	6	6	6	6	6	6	6
72	3	6	4	6	5	4	6	4	6
73	6	7	7	6	6	6	5	5	5
74	6	5	7	3	6	6	7	5	6
75	5	5	6	6	6	5	5	3	6
76	4	6	4	5	4	4	5	5	4
77	5	6	4	5	6	4	5	5	6
78	3	5	5	4	5	5	4	5	4
79	6	6	6	6	5	5	6	5	6
80	3	7	6	6	6	7	3	4	5
81	6	6	6	5	5	6	6	6	6
82	3	7	7	4	4	6	3	4	4
83	6	7	4	6	6	5	7	6	7
84	5	6	6	6	3	6	3	6	6
85	3	6	4	4	4	5	4	5	3
86	4	5	4	3	4	4	4	4	5
87	5	3	4	4	5	3	3	5	3
88	4	6	5	3	4	4	4	4	2

Panelis	Perlakuan (proporsi isolat protein kedelai: <i>emulsifier</i>)								
	10:0,5	10:0,75	10:1	20:0,5	20:0,75	20:1	30:0,5	30:0,75	30:1
89	6	6	6	4	6	4	4	4	4
90	5	5	5	5	5	3	3	5	4
91	6	6	6	5	5	6	4	6	5
92	5	5	5	5	3	4	4	6	5
93	6	6	6	6	6	6	6	5	6
94	5	5	6	5	6	5	6	5	4
95	4	4	6	4	3	5	5	7	4
96	4	4	4	3	4	4	4	4	3
97	6	6	7	6	7	6	5	5	6
98	5	5	6	7	3	3	4	5	7
99	2	3	3	3	3	5	3	5	3
100	4	1	2	6	4	5	4	6	5
Total	489	509	530	465	507	479	457	470	478
Rata	4,8900	5,0900	5,3000	4,6500	5,0700	4,7900	4,5700	4,7000	4,7800

Tabel ANOVA

sb var	db	JK	KT	Fhit	Ftab ($\alpha=5\%$)
Perlakuan	8	256,9840	32,1230	17,6079*	1,95
Galat	891	1625,5000	1,8244		
Total	899	1882,4840			

F hitung > F tabel, maka

Ada pengaruh nyata substusi parsial telur dengan isolat protein kedelai dan penambahan *emulsifier* terhadap tingkat kesukaan panelis terhadap rasa cake beras yang dihasilkan.

Uji Beda Jarak Nyata Duncan (*Duncan's Multiple Range Test*) pada $\alpha = 5\%$

$$R_p = r_p \times S_y$$

$$S_y = \sqrt{\frac{KTG}{n}} = \sqrt{\frac{1,8244}{100}} = 0,1351$$

	x	30 : 0,5	20 : 0,5	30 : 0,75	30 : 1	20 : 1	10 : 0,5	20 : 0,75	10 : 0,75	10 : 1	Notasi
30 : 0,5	4,5700	0	0,0800	0,1300	0,2100	0,2200	0,3200	0,5000*	0,5200*	0,7300*	a
20 : 0,5	4,6500		0	0,0500	0,1300	0,1400	0,2400	0,4200	0,4400*	0,6500*	ab
30 : 0,75	4,7000			0	0,0800	0,0900	0,1900	0,3700	0,3900	0,6000*	abc
30 : 1	4,7800				0	0,0100	0,1100	0,2900	0,3100	0,5200*	abc
20 : 1	4,7900					0	0,1000	0,2800	0,3000	0,5100*	abc
10 : 0,5	4,8900						0	0,1800	0,2000	0,4100*	abc
20 : 0,75	5,0700							0	0,0200	0,2300	bcd
10 : 0,75	5,0900								0	0,2100	cd
10 : 1	5,3000									0	d
$R_p_{(0,05;891)}$			2,77	2,92	3,02	3,09	3,15	3,19	3,23	3,26	
$DMTR_{(S_y \cdot r_p)}$			0,3741	0,3944	0,4079	0,4174	0,4255	0,4309	0,4363	0,4403	

Lampiran 11. Uji Organoleptik Tingkat Kesukaan terhadap *Moistness*

Data Tingkat Kesukaan terhadap *Moistness Cake Beras*

Panelis	Perlakuan (proporsi isolat protein kedelai: <i>emulsifier</i>)								
	10:0,5	10:0,75	10:1	20:0,5	20:0,75	20:1	30:0,5	30:0,75	30:1
1	5	6	5	6	6	6	6	6	5
2	6	3	5	5	6	4	4	7	4
3	2	5	2	3	6	6	5	4	3
4	5	6	6	4	6	6	5	6	5
5	4	4	3	7	6	5	1	5	5
6	5	6	4	5	7	2	5	4	6
7	3	4	3	3	4	6	6	5	2
8	6	7	3	3	7	5	7	6	7
9	5	4	2	3	5	6	3	7	3
10	7	5	6	7	7	6	4	5	4
11	4	4	5	3	6	4	7	3	3
12	5	6	7	6	6	6	6	6	5
13	6	4	3	4	4	5	4	2	6
14	5	5	2	5	6	5	4	3	4
15	5	2	5	3	4	3	4	2	4
16	4	4	6	4	6	4	4	4	5
17	5	5	5	6	5	4	5	5	6
18	6	6	4	3	4	5	5	6	5
19	3	6	4	6	5	6	5	3	6
20	4	4	3	5	4	4	3	6	5
21	4	5	2	3	6	5	3	3	5
22	4	4	3	5	5	5	3	3	4
23	4	7	5	3	5	2	1	1	7
24	4	5	6	6	5	4	6	5	6
25	6	6	5	4	7	5	5	5	4
26	4	6	3	4	4	5	6	6	5
27	4	4	5	7	5	3	3	6	4
28	5	4	6	5	2	5	4	3	5

Panelis	Perlakuan (proporsi isolat protein kedelai: <i>emulsifier</i>)								
	10:0,5	10:0,75	10:1	20:0,5	20:0,75	20:1	30:0,5	30:0,75	30:1
29	4	4	3	4	5	5	4	5	5
30	5	3	5	3	4	6	3	5	5
31	6	6	5	3	6	6	6	6	3
32	4	4	4	4	6	5	4	6	3
33	5	4	3	5	5	5	5	5	5
34	6	7	5	4	6	5	5	6	4
35	6	7	7	5	4	5	4	4	3
36	5	4	6	4	5	4	6	4	5
37	4	5	6	3	6	4	4	3	3
38	7	5	5	4	5	6	4	6	3
39	4	3	5	5	6	4	5	5	3
40	5	5	7	5	7	6	6	5	7
41	5	4	6	4	5	6	3	5	5
42	1	1	7	5	2	1	7	1	7
43	5	6	6	6	6	5	5	4	6
44	3	2	5	6	3	4	5	1	6
45	5	5	6	6	6	6	5	5	5
46	4	7	5	5	4	6	8	5	6
47	5	6	6	6	4	6	7	6	6
48	2	4	3	1	2	2	2	5	2
49	6	5	7	6	6	7	6	6	6
50	5	3	5	4	5	2	5	3	2
51	5	3	6	4	4	6	6	5	4
52	2	3	5	3	5	6	5	6	3
53	4	7	6	6	7	5	6	4	6
54	2	1	5	6	6	4	3	2	4
55	5	6	6	5	6	5	5	6	6
56	6	6	7	5	7	7	6	6	7
57	7	7	5	7	7	7	7	6	7
58	4	3	4	4	4	4	4	4	4

Panelis	Perlakuan (proporsi isolat protein kedelai: <i>emulsifier</i>)								
	10:0,5	10:0,75	10:1	20:0,5	20:0,75	20:1	30:0,5	30:0,75	30:1
59	4	5	6	4	3	3	1	4	1
60	3	3	4	4	5	3	3	5	5
61	5	2	4	1	6	6	1	2	3
62	4	3	3	5	2	5	5	4	5
63	5	4	4	5	4	5	6	5	6
64	2	4	4	4	4	2	4	2	3
65	3	5	5	3	6	4	5	6	5
66	7	5	3	5	5	5	5	6	3
67	6	6	7	7	7	7	7	7	6
68	4	4	3	5	6	4	6	4	5
69	5	5	5	3	4	5	5	3	5
70	5	4	1	1	3	6	2	7	1
71	7	5	3	5	6	1	7	5	6
72	4	6	4	5	6	7	6	7	4
73	5	7	7	4	7	4	3	5	7
74	6	6	6	6	5	6	5	6	5
75	5	4	6	5	6	6	6	6	5
76	2	3	6	2	2	7	5	6	3
77	5	4	6	4	5	4	6	5	5
78	5	3	5	4	4	2	5	3	4
79	5	6	6	6	6	6	6	5	6
80	3	7	6	6	6	7	3	4	7
81	3	4	6	4	6	4	6	4	5
82	3	7	6	6	7	3	5	3	4
83	5	7	3	4	5	4	7	5	7
84	3	5	5	4	2	6	3	5	5
85	4	6	6	5	6	5	4	6	6
86	3	6	4	4	3	4	3	5	6
87	4	4	4	3	4	3	4	5	4
88	3	6	6	3	3	2	2	2	4

Panelis	Perlakuan (proporsi isolat protein kedelai: <i>emulsifier</i>)								
	10:0,5	10:0,75	10:1	20:0,5	20:0,75	20:1	30:0,5	30:0,75	30:1
89	3	2	4	2	3	5	2	5	3
90	6	6	5	3	6	3	4	2	3
91	3	4	4	4	4	3	3	4	3
92	5	6	2	4	5	4	3	3	4
93	5	5	2	5	5	4	5	6	4
94	4	3	4	3	6	3	3	3	3
95	3	4	5	3	3	6	3	4	4
96	3	3	5	2	4	4	5	7	3
97	5	4	3	3	4	5	2	4	4
98	7	5	7	7	7	7	6	6	6
99	6	3	7	5	7	5	6	4	7
100	3	2	4	6	3	3	5	6	3
Total	448	466	475	440	504	470	458	463	462
Rata	4,48	4,66	4,75	4,40	5,04	4,70	4,58	4,63	4,62

Tabel ANOVA

sb var	db	JK	KT	Fhit	Ftab ($\alpha=5\%$)
Perlakuan	8	26,2289	3,2786	1,5909	1,95
Galat	891	1836,2200	2,0609		
Total	899	1862,4489			

F hitung < F tabel, maka

Tidak ada pengaruh nyata substusi parsial telur dengan isolat protein kedelai dan penambahan *emulsifier* terhadap tingkat kesukaan panelis terhadap *moistness cake* beras yang dihasilkan.

Lampiran 12. Uji Pembobotan

Nilai tak berdimensi = $\frac{\text{nilai perlakuan} - \text{nilai terburuk}}{\text{nilai terbaik} - \text{nilai terburuk}}$

1. Isolat protein kedelai 10%, emulsifier 0,5%

Organoleptik Warna Crumb (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{4,8700 - 4,2000}{4,8800 - 4,2000} = 0,9853$$

Organoleptik Kelembutan (1)

$$\text{Nilai Tak Berdimensi} = \frac{4,6800 - 4,5100}{5,1200 - 4,5100} = 0,2787$$

Organoleptik Rasa (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{4,8900 - 4,5700}{5,300 - 4,5700} = 0,4384$$

Organoleptik Moistness (1)

$$\text{Nilai Tak Berdimensi} = \frac{4,4800 - 4,4000}{5,0400 - 4,4000} = 0,1250$$

Total Nilai Tak Berdimensi

$$= 0,8 \times 0,9852 + 1 \times 0,2787 + 0,8 \times 0,4384 + 1 \times 0,1250 \\ = 1,5426$$

2. Isolat protein kedelai 10%, emulsifier 0,75%

Organoleptik Warna Crumb (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{4,8800 - 4,2000}{4,8800 - 4,2000} = 1$$

Organoleptik Kelembutan (1)

$$\text{Nilai Tak Berdimensi} = \frac{4,8300 - 4,5100}{5,1200 - 4,5100} = 0,9265$$

Organoleptik Rasa (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{5,0900-4,5700}{5,3000-4,5700} = 0,7123$$

Organoleptik Moistness (1)

$$\text{Nilai Tak Berdimensi} = \frac{4,6600-4,4000}{5,0400-4,4000} = 0,4063$$

Total Nilai Tak Berdimensi

$$= 0,8 \times 1 + 1 \times 0,9265 + 0,8 \times 0,7123 + 1 \times 0,4063 \\ = 2,7026$$

3. Isolat protein kedelai 10%, emulsifier 1%

Organoleptik Warna Crumb (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{4,8400-4,2000}{4,8800-4,2000} = 0,9412$$

Organoleptik Kelembutan (1)

$$\text{Nilai Tak Berdimensi} = \frac{5,1000-4,5100}{5,1200-4,5100} = 0,9672$$

Organoleptik Rasa (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{5,3000-4,5700}{5,3000-4,5700} = 1$$

Organoleptik Moistness (1)

$$\text{Nilai Tak Berdimensi} = \frac{4,7500-4,4000}{5,0400-4,4000} = 0,5469$$

Total Nilai Tak Berdimensi

$$= 0,8 \times 0,9412 + 1 \times 0,9672 + 0,8 \times 1 + 1 \times 0,5469 \\ = 3,0671$$

4. Isolat protein kedelai 20%, emulsifier 0,5%

Organoleptik Warna Crumb (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{4,5100-4,2000}{4,8800-4,2000} = 0,4559$$

Organoleptik Kelembutan (1)

$$\text{Nilai Tak Berdimensi} = \frac{4,6400-4,5100}{5,1200-4,5100} = 0,2131$$

Organoleptik Rasa (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{4,6500-4,5700}{5,300-4,5700} = 0,1096$$

Organoleptik Moistness (1)

$$\text{Nilai Tak Berdimensi} = \frac{4,4000-4,4000}{5,0400-4,4000} = 0$$

Total Nilai Tak Berdimensi

$$= 0,8 \times 0,4559 + 1 \times 0,2131 + 0,8 \times 0,1096 + 1 \times 0 \\ = 0,6655$$

5. Isolat protein kedelai 20%, emulsifier 0,75%

Organoleptik Warna Crumb (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{4,7400-4,2000}{4,8800-4,2000} = 0,7941$$

Organoleptik Kelembutan (1)

$$\text{Nilai Tak Berdimensi} = \frac{5,1200-4,5100}{5,1200-4,5100} = 1$$

Organoleptik Rasa (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{5,0700-4,5700}{5,3000-4,5700} = 0,6849$$

Organoleptik Moistness (1)

$$\text{Nilai Tak Berdimensi} = \frac{5,0400-4,4000}{5,0400-4,4000} = 1$$

Total Nilai Tak Berdimensi

$$= 0,8 \times 0,7941 + 1 \times 1 + 0,8 \times 0,6849 + 1 \times 1 \\ = 3,1832$$

6. Isolat protein kedelai 20%, emulsifier 1%

Organoleptik Warna Crumb (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{4,8400-4,2000}{4,8800-4,2000} = 0,9412$$

Organoleptik Kelembutan (1)

$$\text{Nilai Tak Berdimensi} = \frac{4,7100-4,5100}{5,1200-4,5100} = 0,3279$$

Organoleptik Rasa (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{4,7900-4,5700}{5,3000-4,5700} = 0,3014$$

Organoleptik Moistness (1)

$$\text{Nilai Tak Berdimensi} = \frac{4,7000-4,4000}{5,0400-4,4000} = 0,4688$$

Total Nilai Tak Berdimensi

$$= 0,8 \times 0,9412 + 1 \times 0,3279 + 0,8 \times 0,3014 + 1 \times 0,4688 \\ = 1,7908$$

7. Isolat protein kedelai 30%, emulsifier 0,5%

Organoleptik Warna Crumb (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{4,2600-4,2000}{4,8800-4,2000} = 0,0882$$

Organoleptik Kelembutan (1)

$$\text{Nilai Tak Berdimensi} = \frac{4,6100-4,5100}{5,1200-4,5100} = 0,1639$$

Organoleptik Rasa (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{4,5700-4,5700}{5,300-4,5700} = 0$$

Organoleptik Moistness (1)

$$\text{Nilai Tak Berdimensi} = \frac{4,5800-4,4000}{5,0400-4,4000} = 0,2813$$

Total Nilai Tak Berdimensi

$$= 0,8 \times 0,0882 + 1 \times 0,1639 + 0,8 \times 0 + 1 \times 0,2813 \\ = 0,5158$$

8. Isolat protein kedelai 30%, emulsifier 0,75%

Organoleptik Warna Crumb (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{4,4700-4,2000}{4,8800-4,2000} = 0,3971$$

Organoleptik Kelembutan (1)

$$\text{Nilai Tak Berdimensi} = \frac{4,5200-4,5100}{5,1200-4,5100} = 0,0164$$

Organoleptik Rasa (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{4,7000-4,5700}{5,300-4,5700} = 0,1781$$

Organoleptik Moistness (1)

$$\text{Nilai Tak Berdimensi} = \frac{4,6300-4,4000}{5,0400-4,4000} = 0,3594$$

Total Nilai Tak Berdimensi

$$= 0,8 \times 0,3971 + 1 \times 0,0164 + 0,8 \times 0,1781 + 1 \times 0,3594$$

$$= 0,8360$$

9. Isolat protein kedelai 30%, emulsifier 1%

Organoleptik Warna Crumb (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{4,2000-4,2000}{4,8800-4,2000} = 0$$

Organoleptik Kelembutan (1)

$$\text{Nilai Tak Berdimensi} = \frac{4,5100-4,5100}{5,1200-4,5100} = 0$$

Organoleptik Rasa (0,8)

$$\text{Nilai Tak Berdimensi} = \frac{4,7800-4,5700}{5,300-4,5700} = 0,2877$$

Organoleptik Moistness (1)

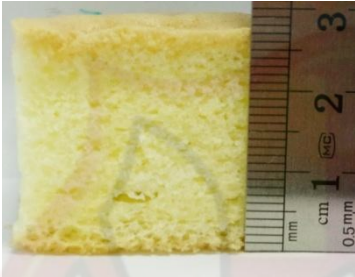
$$\text{Nilai Tak Berdimensi} = \frac{4,6200-4,4000}{5,0400-4,4000} = 0,3438$$

Total Nilai Tak Berdimensi

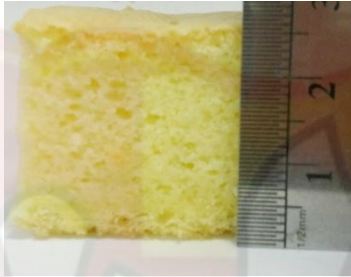
$$= 0,8 \times 0 + 1 \times 0 + 0,8 \times 0,2877 + 1 \times 0,3438 \\ = 0,5740$$

Perlakuan terbaik yang dipilih adalah substitusi telur dengan isolat protein kedelai sebesar 20% dengan penambahan emulsifier sebesar 0,75% dari berat tepung.

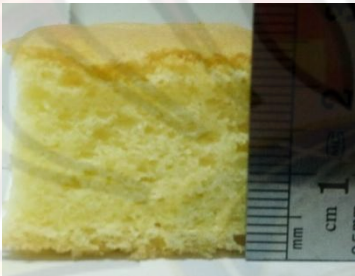
Lampiran 12. Hasil Pengamatan Struktur *Crumb Cake* Beras



Kontrol



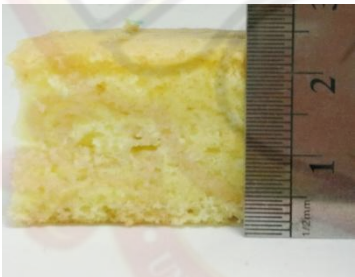
Telur: IPK = 90%:10%
emulsifier 0,5%



Telur: IPK = 90%:10%
emulsifier 0,75%



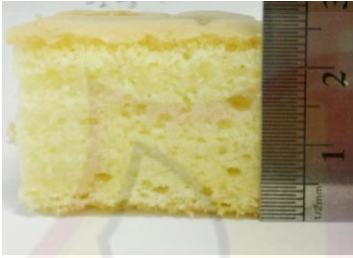
Telur: IPK = 90%:10%
emulsifier 1%



Telur: IPK = 80%:20%
emulsifier 0,5%



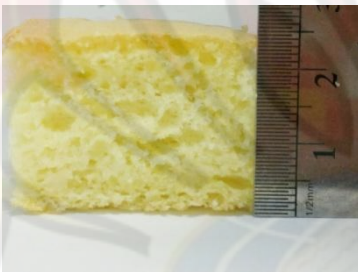
Telur: IPK = 80%:20%
emulsifier 0,75%



Telur: IPK = 80%:20%
emulsifier 1%



Telur: IPK = 70%:30%
emulsifier 0,5%



Telur: IPK = 70%:30%
emulsifier 0,75%



Telur: IPK = 70%:30%
emulsifier 1%



Kenampakan *Cake* Beras