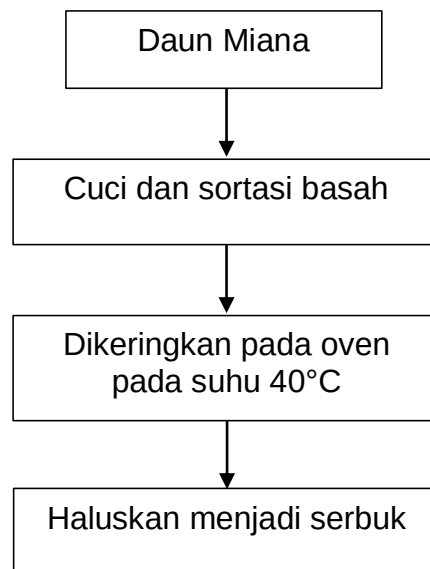
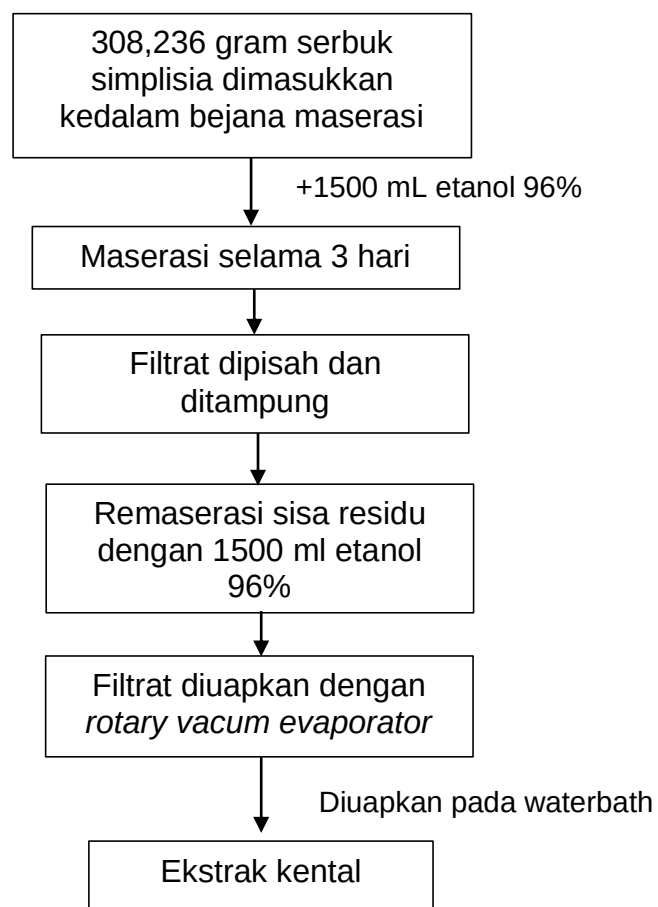


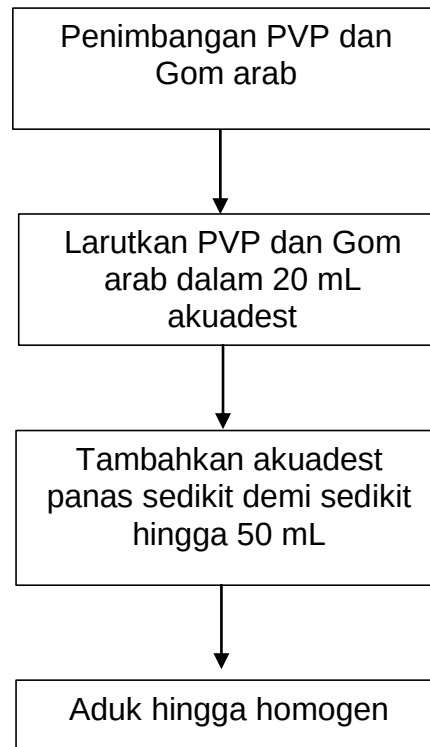
LAMPIRAN

Lampiran 1 : Skema Kerja Pengolahan Daun Miana (*Coleus scutellarioides* L)



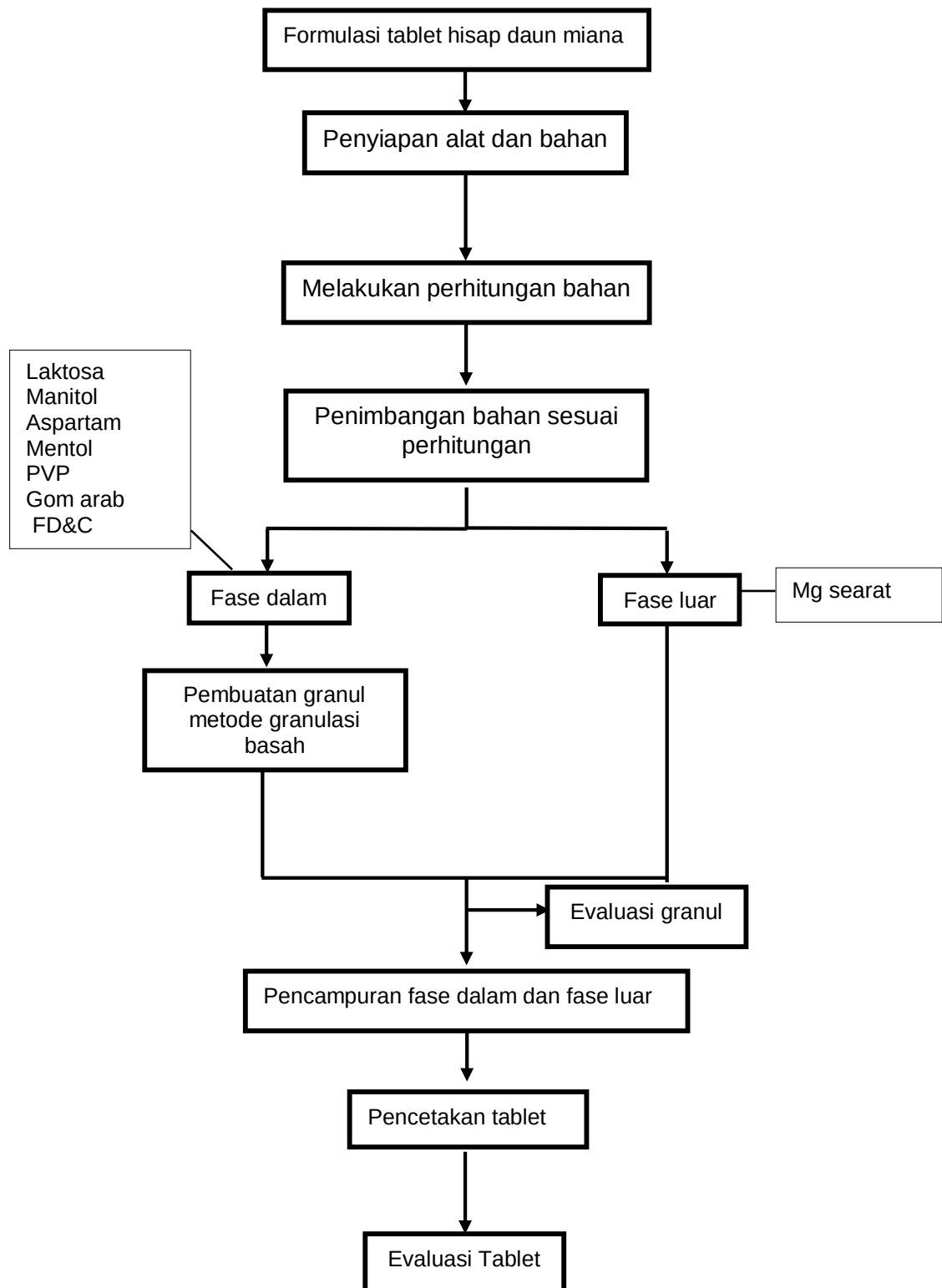
Lampiran 2 : Skema kerja ekstraksi metode maserasi sampel daun miana



Lampiran 3 : Skema kerja pembuatan mucilago**Lampiran 4 : Rancangan formula**

Bahan	Formula tiap tablet (mg)		
	FI	FII	FIII
Ekstrak daun miana	5,4	5,4	5,4
Laktosa	1023,6	1023,6	1023,6
Manitol	780	780	780
Aspartam	100	100	100
Mentol	6	6	6
PVP	80	40	-
Gom Arab	-	40	80
Magnesium stearat	5	5	5

Lampiran 5 : Skema kerja formula tablet hisap ekstrak daun miana (*Coleus scutellarioides* L)



Lampiran 6 : Perhitungan Pengujian Evaluasi Granul

- Uji kelembaban

Formula	%MC
I	1,10
II	0,90
III	0,95

- Uji alir

Formula	Replikasi	Berat granul (gram)	Waktu granul mengalir (gram)	Kecepatan alir granul (gram/detik)
FI	1	50	8,77	5,701
	2	50	8,45	5,917
	3	50	8,86	5,643
FII	1	50	7,40	6,756
	2	50	8,72	5,733
	3	50	6,89	7,256
FIII	1	50	6,99	7,153
	2	50	7,39	6,765
	3	50	7,46	6,702

Rumus :

$$kecepatan\ alir = \frac{Bobot\ Granul}{Waktu\ Alir}$$

$$FI : R_1 : \frac{50}{8,77} = 5,701 \text{ gram/detik}$$

$$R_2 : \frac{50}{8,45} = 5,917 \text{ gram/detik}$$

$$R_3 : \frac{50}{8,86} = 5,643 \text{ gram/ detik}$$

$$FII : R_1 : \frac{50}{7,40} = 6,756 \text{ gram/detik}$$

$$R_2 : \frac{50}{8,72} = 5,733 \text{ gram/detik}$$

$$R_3 : \frac{50}{6,89} = 7,256 \text{ gram/ detik}$$

$$FIII : R_1 : \frac{50}{6,99} = 7,153 \text{ gram/detik}$$

$$R_2 : \frac{50}{7,39} = 6,765 \text{ gram/detik}$$

$$R_3 : \frac{50}{7,46} = 6,702 \text{ gram/ detik}$$

- Uji sudut diam (*Angel of repose*)

Formula	Replikasi	Tinggi granul (cm)	Diameter granul (cm)	Angel of repose
FI	1	3,4	10,7	32,415
	2	3,3	10,65	31,757
	3	3,7	11,1	33,665
FII	1	3,3	11,6	29,596
	2	3,8	11,6	33,224
	3	3,8	11,3	33,901
FIII	1	3,3	10,8	31,424
	2	3,4	10,5	32,902
	3	3,1	10,7	30,070

Rumus :

$$\tan \theta = \frac{2h}{D}$$

Ket: h = Tinggi tumpukan granul
D = Diameter tumpukan granul

$$\text{FI : } R_1 : \tan \theta \frac{2 \times 3,4}{10,7} = 32,415$$

$$R_2 : \tan \theta \frac{2 \times 3,3}{10,65} = 31,757$$

$$R_3 : \tan \theta \frac{2 \times 3,7}{11,1} = 33,663$$

$$\text{FII : } R_1 : \tan \theta \frac{2 \times 3,3}{11,6} = 29,596$$

$$R_2 : \tan \theta \frac{2 \times 3,8}{11,6} = 33,224$$

$$R_3 : \tan \theta \frac{2 \times 3,8}{11,3} = 33,901$$

$$\text{FIII : } R_1 : \tan \theta \frac{2 \times 3,3}{10,8} = 31,424$$

$$R_2 : \tan \theta \frac{2 \times 3,4}{10,5} = 32,902$$

$$R_3 : \tan \theta \frac{2 \times 3,1}{10,7} = 30,070$$

- Uji Indeks Kompresibilitas

Formul a	Replikas i	Mass a granu l (g)	Vol.ruaha n (ml)	Vol. mampa t (ml)	Indek s	Perb. hausne r
FI	1	40	97	89	8,247	1,089
	2	40	100	93	7	1,075
	3	40	98	93	5,102	1,053
FII	1	40	100	92	8	1,086
	2	40	100	96	4	1,041
	3	40	100	97	3	1,038
FIII	1	40	94	85	9,574	1,105
	2	40	92	85	7,608	1,082
	3	40	92	83	9,782	1,108

Rumus :

Indeks kompresibilitas

$$100 = \frac{V_o - V_f}{V_o}$$

perbandingan hausner

$$\frac{V_o}{V_f}$$

Ket: V_o = Volume sebelum dimanpatkan

V_f = Volume setelah pengetukan

$$\text{FI : } R_1 : \frac{97-89}{97} \times 100 = 8,247$$

$$R_1 : \frac{97}{89} = 1,089$$

$$R_2 : \frac{100-93}{100} \times 100 = 7$$

$$R_2 : \frac{100}{93} = 1,075$$

$$R_3 : \frac{98-93}{98} \times 100 = 5,102$$

$$R_3 : \frac{98}{93} = 1,053$$

$$\text{FII } R_1 : \frac{100-92}{100} \times 100 = 8$$

$$R_1 : \frac{100}{92} = 1,086$$

$$R_2 : \frac{100-96}{100} \times 100 = 4$$

$$R_2 : \frac{100}{96} = 1,041$$

$$R_3 : \frac{100-97}{100} \times 100 = 3$$

$$R_3 : \frac{100}{97} = 1,038$$

$$\text{FIII } R_1 : \frac{94-85}{94} \times 100 = 9,574$$

$$R_1 : \frac{94}{85} = 1,105$$

$$R_2 : \frac{92-85}{92} \times 100 = 7,608$$

$$R_2 : \frac{92}{85} = 1,082$$

$$R_3 : \frac{92-83}{92} \times 100 = 9,782$$

$$R_3 : \frac{92}{83} = 1,108$$

Lampiran 7 : Perhitungan pengujian Evaluasi Tablet Hisap

- Uji keseragaman bobot

No. Tablet	Bobot		
	FI	FII	FIII
1	1,50	1,45	1,58
2	1,46	1,44	1,68
3	1,53	1,40	1,47
4	1,43	1,41	1,42
5	1,48	1,48	1,58
6	1,54	1,43	1,50
7	1,45	1,45	1,63
8	1,42	1,37	1,60
9	1,43	1,43	1,63
10	1,54	1,38	1,46
11	1,48	1,46	1,60
12	1,50	1,35	1,45
13	1,48	1,34	1,57
14	1,46	1,39	1,55
15	1,47	1,43	1,47
16	1,52	1,38	1,47
17	1,50	1,45	1,67
18	1,48	1,50	1,59
19	1,49	1,35	1,72
20	1,50	1,37	1,45
Total	29,7	28,26	31,09
Rata-rata	1,485	1,413	1,5545
SD	0,032847	0,045779793	0,088286317

Perhitungan 5% untuk batas atas dan batas bawah tablet

$$FI : 1,485 \times \frac{5}{100} = 74,25$$

$$\text{Batas atas} = 1,559.25$$

$$\text{Batas bawah} = 1,410.75$$

$$\text{Range bobot tablet} = 1.559,25 - 1.410,75$$

Pada formula 1 tidak ada bobot tablet yang menyimpang

$$FII : 1,413 \times \frac{5}{100} = 70,65$$

$$\text{Batas atas} = 1,483.65$$

$$\text{Batas bawah} = 1,342.35$$

Range bobot tablet = 1,483.65 – 1,342.35

Pada formula 2 tidak ada bobot yang menyimpang

$$\text{FIII} : 1,554 \times \frac{5}{100} = 77,7$$

Batas atas = 1,631.7

Batas bawah = 1.476,3

Range bobot tablet = 1,631.7 – 1,476.3

Pada formula 3 tidak ada tablet yang menyimpang

- Uji kekerasan

No. Tablet	Kekerasan		
	FI	FII	FIII
1	7,29	3,60	3,68
2	8,56	4,05	3,83
3	8,11	2,56	3,83
4	9,57	4,50	3,29
5	8,31	2,36	3,31
6	8,59	3,73	1,73
7	7,56	3,74	2,88
8	7,56	2,93	2,85
9	9,48	3,74	3,82
10	7,95	3,23	2,92
11	8,37	2,79	4,03
12	8,11	3,77	3,23
13	4,46	3,13	2,10
14	4,10	3,52	3,56
15	6,69	1,69	3,63
16	6,24	2,89	3,58
17	7,29	3,05	3,11
18	8,39	5,45	3,16
19	4,15	3,44	2,78
20	8,25	3,81	4,11
Total	149,03	67,98	65,43
Rata-rata	7,451 kg	3,399 kg	3,271 kg
SD	1.598477154	0.805402155	0.61403133

- Uji kerapuhan

Formula	Bobot tablet awal	Bobot tablet akhir	% kerapuhan
I	29,88 gram	29,85 gram	0,100%
II	28,26 gram	28,02 gram	0,849%
III	32,74 gram	29,21 gram	0,107%

$$\% F = \frac{W_o - W_t}{W_o} \times 100\%$$

$$FI : \quad \%F = \frac{29,88 - 29,85}{29,88} \times 100\% = 0,100\%$$

$$FII : \quad \%F = \frac{28,26 - 28,02}{28,26} \times 100\% = 0,849\%$$

$$FIII : \quad \%F = \frac{32,74 - 29,21}{32,74} \times 100\% = 0,107\%$$

- Uji waktu hancur

Replikasi	FI	FII	FIII
1	6,43	4,03	3,46
2	3,38	4,06	3,12
3	4,08	3,36	3,54

Lampiran 8 : Gambar



Gambar 8. Alat Moisture analyzer



Gambar 9. Flow tester



Gambar 10. Vibrator shaker



Gambar 11. Timbangan analitik



Gambar 12. Hardness tester



Gambar 13. Friability tester



Gambar 14. Disintegration tester



Gambar 15. Alat cetak tablet



Gambar 16. Simplisia daun miana (*Coleus scutellarioides* L)



Gambar 17. Maserasi simplisia daun miana (*Coleus scutellarioides* L)



Gambar 18. Rotavapor ekstrak daun miana (*Coleus scutellarioides* L)



Gambar 19. Water bath ekstrak daun miana (*Coleus scutellarioides* L)