Lampiran 1. Tabel Data Hasil Pengamatan

Tabel 6. Jumlah Berat (gram) Gabah Bernas dan Gabah Hampa 850 rpm.

	Kotak	Gabah	Ulangan 1	Ulangan 2	Ulangan 3
850 rpm	Kotak 1	Bernas	0	0	0
		Hampa	0	0	0
	Kotak 2	Bernas	642	641	643
		Hampa	0	0	0
	Kotak 3	Bernas	158	159	157
		Hampa	140	140	148
	Kotak 4	Bernas	0	0	0
		Hampa	43	37	35
	Kotak 5	Bernas	0	0	0
		Hampa	12	16	12
	Di luar Kotak	Bernas	0	0	0
		Hampa	5	7	5
	Jumlah	Bernas	800	800	800
		Hampa	200	200	200
	Waktu (detik)		29	29	30

Tabel 7. Jumlah Berat (gram) Gabah Bernas dan Gabah Hampa 1.070 rpm.

	Kotak	Gabah	Ulangan 1	Ulangan 2	Ulangan 3
1.070 rpm	Kotak 1	Bernas	0	0	0
		Hampa	0	0	0
	Kotak 2	Bernas	400	398	398
		Hampa	0	0	0
	Kotak 3	Bernas	400	402	402
		Hampa	40	37	41
	Kotak 4	Bernas	0	0	0
		Hampa	79	75	72
	Kotak 5	Bernas	0	0	0
		Hampa	58	64	59
	Di luar Kotak	Bernas	0	0	0
		Hampa	23	24	28
	Jumlah	Bernas	800	800	800
		Hampa	200	200	200
	Waktu (detik)		28	28	29

Tabel 8. Jumlah Berat (gram) Gabah Bernas dan Gabah Hampa 1.300 rpm.

	Kotak	Gabah	Ulangan 1	Ulangan 2	Ulangan 3
1.300 rpm	Kotak 1	Bernas	0	0	0
		Hampa	0	0	0
	Kotak 2	Bernas	209	200	207
		Hampa	0	0	0
	Kotak 3	Bernas	380	396	392
		Hampa	52	55	50
	Kotak 4	Bernas	211	204	201
		Hampa	75	75	74
	Kotak 5	Bernas	0	0	0
		Hampa	41	40	45
	Di luar Kotak	Bernas	0	0	0
		Hampa	32	30	31
	Jumlah	Bernas	800	800	800
		Hampa	200	200	200
	Waktu (detik)		29	28	29

Lampiran 2. Perhitungan

1. Perhitungan Persentase Gabah Bernas

Perhitungan ini menggunakan persamaan : $GB = \frac{JGB}{JGBA} \times 100\%$

dimana : GB = Gabah bernas (%)

JGB = Jumlah Gabah bernas (gram)

JGBA = Jumlah Gabah bernas Awal (gram)

a. 850 rpm

Ulangan 1; Kotak 1 => $GB = \frac{0}{1000} \times 100\%$

= 0%

Kotak 2 => $GB = \frac{642}{1000} \times 100\%$

= 64,20%

Kotak 3 => $GB = \frac{158}{1000} \times 100\%$

= 15,80%

Kotak 4 => $GB = \frac{0}{1000} \times 100\%$

=0%

Kotak 5 => $GB = \frac{0}{1000} \times 100\%$

= 0%

Ulangan 2 ; Kotak 1 => $GB = \frac{0}{1000} \times 100\%$

= 0%

Kotak 2 => GB = $\frac{641}{1000}$ x 100%

= 64,10%

Kotak 3 => GB = $\frac{159}{1000}$ x 100%

= 15,90%

Kotak 4 => GB = $\frac{0}{1000}$ x 100%

= 0%

Kotak 5 => GB = $\frac{0}{1000}$ x 100%

= 0%

Ulangan 3; Kotak 1 => GB = $\frac{0}{1000}$ x 100%

= 0%

Kotak 2 => GB = $\frac{643}{1000}$ x 100%

= 64,30%

Kotak 3 => GB = $\frac{157}{1000}$ x 100%

= 15,70%

Kotak 4 => GB = $\frac{0}{1000}$ x 100%

= 0%

Kotak 5 => GB = $\frac{0}{1000}$ x 100%

= 0%

Rata-rata GB 850 rpm;

Kotak 1 = (0% + 0% + 0%) / 3

= 0%

Kotak 2 = (64,2% + 64,1% + 64,3%) / 3

= 64,20%

Kotak 3 = (15,8% + 15,9% + 15,7%) / 3

= 15,80%

Kotak 4 = (0% + 0% + 0%) / 3

= 0%

Kotak 5 = (0% + 0% + 0%) / 3

= 0%

b. 1070 rpm

Ulangan 1; Kotak 1 => $GB = \frac{0}{1000} \times 100\%$

= 0%

Kotak 2 => $GB = \frac{400}{1000} \times 100\%$

= 40%

Kotak 3 => $GB = \frac{400}{1000} \times 100\%$

=40%

Kotak 4 => GB = $\frac{0}{1000}$ x 100%

= 0%

Kotak 5 => GB = $\frac{0}{1000}$ x 100%

= 0%

Ulangan 2; Kotak 1 => GB = $\frac{0}{1000}$ x 100%

= 0%

Kotak 2 => GB = $\frac{398}{1000}$ x 100%

= 39,80%

Kotak 3 => GB = $\frac{402}{1000}$ x 100%

= 40,20%

Kotak 4 => GB = $\frac{0}{1000}$ x 100%

= 0%

Kotak 5 => GB = $\frac{0}{1000}$ x 100%

= 0%

Ulangan 3; Kotak 1 => GB = $\frac{0}{1000}$ x 100%

= 0%

Kotak 2 => GB = $\frac{398}{1000}$ x 100%

=39,80%

Kotak 3 => GB = $\frac{402}{1000}$ x 100%

= 40,20%

Kotak 4 => $GB = \frac{0}{1000} \times 100\%$

= 0%

Kotak 5 => $GB = \frac{0}{1000} \times 100\%$

= 0%

Rata-rata GB 1070 rpm;

Kotak 1 = (0% + 0% + 0%) / 3

= 0%

Kotak 2 = (40% + 39,8% + 39,8%) / 3

= 39,86%

Kotak 3 = (40% + 40,2% + 40,2%) / 3

= 40,13%

Kotak 4 = (0% + 0% + 0%) / 3

= 0%

Kotak 5 = (0% + 0% + 0%) / 3

= 0%

c. 1300 rpm

Ulangan 1; Kotak 1 => $GB = \frac{0}{1000} \times 100\%$

= 0%

Kotak 2 => GB = $\frac{209}{1000}$ x 100%

= 20,90%

Kotak 3 => GB = $\frac{380}{1000}$ x 100%

=38%

Kotak 4 => GB = $\frac{211}{1000}$ x 100%

= 21,10%

Kotak 5 => GB = $\frac{0}{1000}$ x 100%

= 0%

Ulangan 2; Kotak 1 => GB = $\frac{0}{1000}$ x 100%

= 0%

Kotak 2 => GB = $\frac{200}{1000}$ x 100%

=20%

Kotak 3 => GB = $\frac{396}{1000}$ x 100%

=39,60%

Kotak 4 => GB = $\frac{204}{1000}$ x 100%

=20,40%

Kotak 5 => GB = $\frac{0}{1000}$ x 100%

= 0%

Ulangan 3; Kotak 1 => GB = $\frac{0}{1000}$ x 100%

= 0%

Kotak 2 => GB = $\frac{207}{1000}$ x 100%

= 20,70%

Kotak 3 => GB = $\frac{392}{1000}$ x 100%

=39,20%

Kotak 4 => GB = $\frac{201}{1000}$ x 100%

=20,10%

Kotak 5 => GB = $\frac{0}{1000}$ x 100%

= 0%

Rata-rata GB 1300 rpm;

Kotak 1 = (0% + 0% + 0%) / 3

= 0%

Kotak 2 = (20,90% + 20% + 20,70%) / 3

= 20,53%

Kotak 3 = (38% + 39,60% + 39,20%) / 3

= 38,93%

Kotak 4 = (21,10% + 20,40% + 20,10%) / 3

= 20,53%

Kotak 5 = (0% + 0% + 0%) / 3

= 0%

2. Perhitungan Persentase Gabah Hampa

Perhitungan ini menggunakan persamaan : $GH = \frac{JGH}{JGHA} \times 100\%$

dimana : GH = Gabah hampa (%)

JGH = Jumlah Gabah hampa (gram)

JGHA = Jumlah Gabah hampa Awal (gram)

a. 850 rpm

Ulangan 1; Kotak 1 => $GH = \frac{0}{1000} \times 100\%$

= 0%

Kotak 2 => $GH = \frac{0}{1000} \times 100\%$

= 0%

Kotak 3 => $GH = \frac{140}{1000} \times 100\%$

= 14%

Kotak 4 => $GH = \frac{43}{1000} \times 100\%$

= 4,30%

Kotak 5 => $GH = \frac{12}{1000} \times 100\%$

= 1,20%

Kotak ∞ => GH = $\frac{5}{1000}$ x 100%

= 0,50%

Ulangan 2; Kotak 1 => GH = $\frac{0}{1000}$ x 100%

= 0%

Kotak 2 => GH = $\frac{0}{1000}$ x 100%

= 0%

Kotak 3 => GH = $\frac{140}{1000}$ x 100%

= 14%

Kotak 4 => GH = $\frac{37}{1000}$ x 100%

= 3,70%

Kotak 5 => GH = $\frac{16}{1000}$ x 100%

= 1,60%

Kotak ∞ => GH = $\frac{7}{1000}$ x 100%

= 0,70%

Ulangan 3; Kotak 1 => GH = $\frac{0}{1000}$ x 100%

= 0%

Kotak 2 => GH = $\frac{0}{1000}$ x 100%

= 0%

Kotak 3 => $GH = \frac{148}{1000} \times 100\%$

= 14,80%

Kotak 4 => $GH = \frac{35}{1000} \times 100\%$

= 3,50%

Kotak 5 => $GH = \frac{12}{1000} \times 100\%$

= 1,20%

Kotak ∞ => $GH = \frac{5}{1000} \times 100\%$

= 0,50%

Rata-rata GH 850 rpm;

Kotak 1 = (0% + 0% + 0%) / 3

= 0%

Kotak 2 = (0% + 0% + 0%) / 3

= 0%

Kotak 3 = (14% + 14% + 14,80%) / 3

= 14,27%

Kotak 4 = (4,30% + 3,70% + 3,50%) / 3

= 3,83%

Kotak 5 = (1,20% + 1,60% + 1,20%) / 3

= 1,33%

Kotak ∞ = (0,50% + 0,70% + 0,50%) / 3

= 0,57%

b. 1.070 rpm

Ulangan 1; Kotak 1 => $GH = \frac{0}{1000} \times 100\%$

= 0%

Kotak 2 => $GH = \frac{0}{1000} \times 100\%$

= 0%

Kotak 3 => $GH = \frac{40}{1000} \times 100\%$

= 4%

Kotak 4 => $GH = \frac{79}{1000} \times 100\%$

= 7,90%

Kotak 5 => $GH = \frac{58}{1000} \times 100\%$

= 5,80%

Kotak ∞ => $GH = \frac{23}{1000} \times 100\%$

= 2,30%

Ulangan 2; Kotak 1 => $GH = \frac{0}{1000} \times 100\%$

= 0%

Kotak 2 => GH = $\frac{0}{1000}$ x 100%

= 0%

Kotak 3 => GH = $\frac{37}{1000}$ x 100%

= 3,70%

Kotak 4 => GH = $\frac{75}{1000}$ x 100%

= 7,50%

Kotak 5 => GH = $\frac{64}{1000}$ x 100%

= 6,40%

Kotak ∞ => GH = $\frac{24}{1000}$ x 100%

= 2,40%

Ulangan 3; Kotak 1 => GH = $\frac{0}{1000}$ x 100%

= 0%

Kotak 2 => GH = $\frac{0}{1000}$ x 100%

= 0%

Kotak 3 => GH = $\frac{41}{1000}$ x 100%

= 4,10%

Kotak 4 => GH = $\frac{72}{1000}$ x 100%

= 7,20%

Kotak 5 => GH = $\frac{59}{1000}$ x 100%

= 5,90%

Kotak ∞ => GH = $\frac{28}{1000}$ x 100%

= 2,80%

Rata-rata GH 1.070 rpm;

Kotak 1 = (0% + 0% + 0%) / 3

= 0%

Kotak 2 = (0% + 0% + 0%) / 3

= 0%

Kotak 3 = (4% + 3,70% + 4,10%) / 3

= 3,93%

Kotak 4 = (7,90% + 7,50% + 7,20%) / 3

= 7,53%

Kotak 5 = (5,80% + 6,40% + 5,90%) / 3

= 6,03%

Kotak ∞ = (2,30% + 2,40% + 2,80%) / 3

= 2,50%

c. 1.300 rpm

Ulangan 1; Kotak 1 => GH = $\frac{0}{1000}$ x 100%

= 0%

Kotak 2 => GH = $\frac{0}{1000}$ x 100%

= 0%

Kotak 3 => GH = $\frac{52}{1000}$ x 100%

= 5,20%

Kotak 4 => GH = $\frac{75}{1000}$ x 100%

= 7,50%

Kotak 5 => GH = $\frac{41}{1000}$ x 100%

= 4,10%

Kotak ∞ => GH = $\frac{32}{1000}$ x 100%

= 3,20%

Ulangan 2; Kotak 1 => GH = $\frac{0}{1000}$ x 100%

= 0%

Kotak 2 => GH = $\frac{0}{1000}$ x 100%

= 0%

Kotak 3 => GH = $\frac{55}{1000}$ x 100%

= 5,50%

Kotak 4 => GH = $\frac{75}{1000}$ x 100%

= 7,50%

Kotak 5 => GH = $\frac{40}{1000}$ x 100%

= 4 %

Kotak ∞ => GH = $\frac{30}{1000}$ x 100%

= 3%

Ulangan 3; Kotak 1 => GH = $\frac{0}{1000}$ x 100%

= 0%

Kotak 2 => GH = $\frac{0}{1000}$ x 100%

= 0%

Kotak 3 => GH = $\frac{50}{1000}$ x 100%

= 5%

Kotak 4 => GH = $\frac{74}{1000}$ x 100%

= 7,40%

Kotak 5 => GH = $\frac{45}{1000}$ x 100%

= 4,50%

Kotak ∞ => GH = $\frac{31}{1000}$ x 100%

= 3,10%

Rata-rata GH 1.300 rpm;

Kotak 1 = (0% + 0% + 0%) / 3

= 0%

Kotak 2 = (0% + 0% + 0%) / 3

= 0%

Kotak 3 = (5,20% + 5,50% + 5%) / 3

= 5,23%

Kotak 4 = (7,50% + 7,50% + 7,40%) / 3

= 7,47%

Kotak 5 = (4,10% + 4% + 4,50%) / 3

= 4,20%

Kotak ∞ = (3,20% + 3% + 3,10%) / 3

= 3,10%

3. Perhitungan Persentase Campuran Gabah Hampa Tiap Kotak

Perhitungan ini menggunakan persamaan : $CGH = \frac{JGH}{JGTK} \times 100\%$

dimana : CGH = Campuran Gabah hampa (%)

JGH = Jumlah Gabah hampa (gram)

JGTK = Jumlah Gabah Tiap Kotak (gram)

a. 850 rpm

Ulangan 1; Kotak 1 => $CGH = \frac{0}{0} \times 100\%$

= 0%

Kotak 2 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 3 => CGH = $\frac{140}{298}$ x 100%

= 46,98%

Kotak 4 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 5 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak ∞ => CGH = $\frac{0}{0}$ x 100%

= 0%

Ulangan 2; Kotak 1 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 2 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 3 => CGH = $\frac{140}{299}$ x 100%

= 46,82%

Kotak 4 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 5 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak ∞ => CGH = $\frac{0}{0}$ x 100%

= 0%

Ulangan 3; Kotak 1 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 2 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 3 => CGH = $\frac{148}{305}$ x 100%

= 48,52%

Kotak 4 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 5 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak ∞ => CGH = $\frac{0}{0}$ x 100%

= 0%

Rata-rata CGH 850 rpm;

Kotak 1 = (0% + 0% + 0%) / 3

= 0%

Kotak 2 = (0% + 0% + 0%) / 3

= 0%

Kotak 3 = (46,98% + 46,82% + 48,52%) / 3

= 47,44%

Kotak 4 = (0% + 0% + 0%) / 3

= 0%

Kotak 5 = (0% + 0% + 0%) / 3

= 0%

Kotak ∞ = (0% + 0% + 0%) / 3

= 0%

b. 1.070 rpm

Ulangan 1; Kotak 1 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 2 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 3 => CGH = $\frac{40}{440}$ x 100%

= 9,09%

Kotak 4 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 5 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak ∞ => CGH = $\frac{0}{0}$ x 100%

= 0%

Ulangan 2; Kotak 1 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 2 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 3 => CGH = $\frac{37}{439}$ x 100%

= 8,43%

Kotak 4 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 5 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak ∞ => CGH = $\frac{0}{0}$ x 100%

= 0%

Ulangan 3; Kotak 1 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 2 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 3 => CGH = $\frac{41}{443}$ x 100%

= 9,26%

Kotak 4 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 5 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak ∞ => CGH = $\frac{0}{0}$ x 100%

= 0%

Rata-rata CGH 1.070 rpm;

Kotak 1 = (0% + 0% + 0%) / 3

= 0%

Kotak 2 = (0% + 0% + 0%) / 3

= 0%

Kotak 3 = (9,09% + 8,43% + 9,26%) / 3

= 8,92%

Kotak 4 = (0% + 0% + 0%) / 3

= 0%

Kotak 5 = (0% + 0% + 0%) / 3

= 0%

Kotak ∞ = (0% + 0% + 0%) / 3

= 0%

c. 1.300 rpm

Ulangan 1; Kotak 1 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 2 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 3 => CGH = $\frac{52}{432}$ x 100%

= 12,04%

Kotak 4 => CGH = $\frac{75}{286}$ x 100%

= 26,22%

Kotak 5 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak ∞ => CGH = $\frac{0}{0}$ x 100%

= 0%

Ulangan 2; Kotak 1 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 2 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 3 => CGH = $\frac{55}{431}$ x 100%

= 12,76%

Kotak 4 => CGH = $\frac{75}{279}$ x 100%

= 26,88%

Kotak 5 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak ∞ => CGH = $\frac{0}{0}$ x 100%

= 0%

Ulangan 2; Kotak 1 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 2 => CGH = $\frac{0}{0}$ x 100%

= 0%

Kotak 3 => CGH = $\frac{50}{442}$ x 100%

= 11,31%

Kotak 4 => CGH = $\frac{74}{275}$ x 100%

= 26,91%

Kotak 5 => CGH = $\frac{0}{0}$ x 100%

= 0%

Rata-rata CGH 1.300 rpm;

Kotak 1 = (0% + 0% + 0%) / 3

= 0%

Kotak 2 = (0% + 0% + 0%) / 3

= 0%

Kotak 3 = (12,04% + 12,76% + 11,31%) / 3

= 12,04%

Kotak 4 = (26,22% + 26,88% + 26,91%) / 3

= 26,67%

Kotak 5 = (0% + 0% + 0%) / 3

= 0%

Kotak ∞ = (0% + 0% + 0%) / 3

= 0%

4. Perhitungan Kapasitas Kerja Alat Pembersih Gabah

Perhitungan ini menggunakan persamaan : $KKAP = \frac{JB}{t} \times 100\%$

dimana : KKAP = Kapasitas Kerja Alat Pembersih (kg/jam)

JB = Jumlah Bahan (kg)

t = Waktu yang dibutuhkan untuk membersihkan gabah (Jam)

a. Rata-rata Kapasitas Kerja Alat Pembersih (KKAP) 850 rpm

$$KKAP = \frac{JB}{t} = \frac{1}{29{,}33/3600} = 122{,}74 \text{ kg/jam}$$

b. Rata-rata Kapasitas Kerja Alat Pembersih (KKAP) 1.070 rpm

$$KKAP = \frac{JB}{t} = \frac{1}{28{,}33/3600} = 127{,}07 \text{ kg/jam}$$

c. Rata-rata Kapasitas Kerja Alat Pembersih (KKAP) 1.300 rpm

$$KKAP = \frac{JB}{t} = \frac{1}{28{,}67/3600} = 125{,}56 \text{ kg/jam}$$

Lampiran 3. Dokumentasi Penelitian

Gambar 15. Timbangan

Gambar 16. *Tachometer*

Gambar 17. Pengumpulan Hasil Pembersihan Gabah