Lampiran 1
Tabel Data Kuisioner

No	Kode	Sangat Penting	Cukup Penting	Tidak Penting
1	HB	30	3	0
2	PR	27	4	2
3	LP	28	5	0
4	BHS	25	6	2
5	HJ	28	4	1
6	KP	24	6	3
7	MK	29	3	1

Tabel data Wawancara

	HB	LP	HJ	MK
A1	15.000	16	13.000	ST
A2	12.000	13	10.000	S
A3	14.000	10	12.000	ST
A4	10.000	8	8.000	R
A5	8000	12	7.000	S

Keterangan:

Alternatif:	Kriteria:
A1: Ritek	HB: Harga Bibit (Rp/kg)
A2: Lembang	LP: Lama panen(Minggu)
A3: Mergahayu	HJ: Harga jual(Rp/Kg)
A4: Granola kembang	MK: Minat konsumen
A5: Atlantik	

Tabel Konversi

C1		C2		C3		C4	
5	≤ 8000	5	≤ 8	5	≥ 15.000	5	ST
4	8.500-10.500	4	9-10	4	12.500-14.500	4	T
3	11.000-12.000	3	11-12	3	11.000-12.000	3	S
2	12.500-14.500	2	13-14	2	8.500-10.500	2	R
1	≥ 15.000	1	≥ 15	1	≤ 8000	1	SR

Keterangan:
5 = Sangat Baik (S.BA)/ Sangat Tinggi (S.T)
4 = Baik (BA)/ Tinggi (T)
3 = Sedang (S)
2 = Buruk (BU)/ Rendah (R)
1 = Sangat Buruk (S.BU)/ Sangat Rendah (S.R)

Tabel Bobot Keinginan User

C1	C2	C3	C4
3	3	5	5

Lampiran 2
Metode *Cut Off Point*
Tabel Rata – rata tingkat kepentingan kriteria

No	Kode	Sangat Penting	Cukup Penting	Tidak Penting	Total	Rata - rata
1	HB	30	3	0	96	2,909
2	MK	29	3	1	94	2,848
3	LP	28	5	0	94	2,848
4	HJ	28	4	1	93	2,818
5	PR	27	4	2	91	2,758
6	BHS	25	6	2	89	2,697
7	KP	24	6	3	87	2,636

Total

$HB = 30 \times 3 + 3 \times 2 + 0 \times 0 = 96$

$PR = 27 \times 3 + 4 \times 2 + 2 \times 0 = 91$

$LP = 28 \times 3 + 5 \times 2 + 0 \times 0 = 94$

$BHS = 25 \times 3 + 6 \times 2 + 2 \times 0 = 89$

$HJ = 28 \times 3 + 4 \times 2 + 1 \times 0 = 93$

$KP = 24 \times 3 + 6 \times 2 + 3 \times 0 = 87$

$MK = 29 \times 3 + 3 \times 2 + 1 \times 0 = 94$

Rata-rata

HB = $\frac{96}{33} = 2{,}909$

PR = $\frac{91}{33} = 2{,}758$

LP = $\frac{94}{33} = 2{,}848$

BHS = $\frac{89}{33} = 2{,}697$

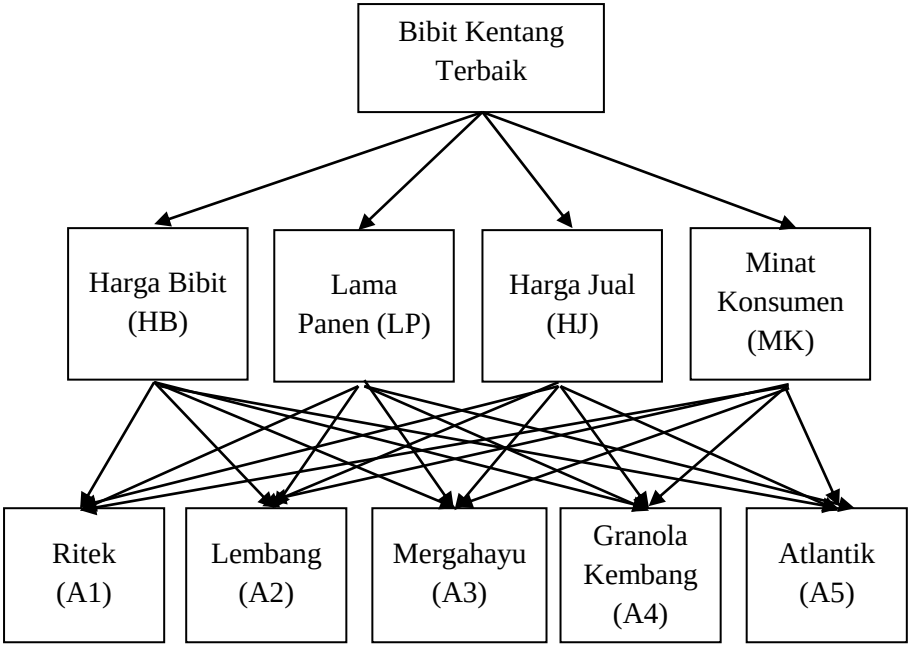
HJ = $\frac{93}{33} = 2{,}818$

KP = $\frac{87}{33} = 2{,}636$

MK = $\frac{94}{33} = 2{,}848$

$$\boldsymbol{CutOffPoint} = \frac{2{,}909+2{,}636}{2} = 2{,}773$$

Lampiran 3 Struktur Hierarki



Lampiran 4 Hasil penilaian tingkat kepentingan kriteria dan penilaian antar alternatif terhadap tiap kriteria

Berikut merupakan hasil penilaian tingkat kepentingan antar kriteria setelah dievaluasi dengan metode *cut off point*.

Kriteria	Tingkat Kepentingan
HB	1
LP	3
HJ	4
MK	2

Berikut merupakan hasil penilaian alternatif terhadap masing-masing kriteria.

	HB	LP	HJ	MK
A1	1	1	5	5
A2	3	3	3	3
A3	2	4	4	5
A4	4	5	5	2
A5	5	3	3	3

Lampiran 5

Matriks perbandingan berpasangan antar kriteria

Kriteria	HB	LP	HJ	MK
HB	1	3	5	2
LP	0,333	1	2	0,500
HJ	0,200	0,500	1	0,333
MK	0,500	2	3	1
w_n	2,033	6,500	11	3,833

Lampiran 6

Tabel matriks bobot relatif dan vektor prioritas

Kriteria	HB	LP	HJ	MK	Vp
HB	0,492	0,462	0,455	0,522	0,482
LP	0,164	0,154	0,182	0,130	0,158
HJ	0,098	0,077	0,091	0,087	0,088
MK	0,246	0,308	0,273	0,261	0,272

Lampiran 7

Nilai *t*, *CI*, dan *CR*

$t = \ w_1 \times v_1 \ + \ w_2 \times v_2 \ + \cdots + (w_n \times v_m)$

$t = (2{,}033 \times 0{,}482) + (6{,}500 \times 0{,}158) + (11 \times 0{,}088) + (3{,}833 \times 0{,}272)$

$t = 4{,}018$

$C_I = \frac{4{,}018 - 4}{(4-1)} = 0{,}0058$

$C_r = \frac{0{,}0058}{0{,}9} = 0{,}0065$

Tabel Nilai *t*, *CI*, dan *CR* antar kriteria

T	4,018
C_I	0,0058
C_R	0,0065

Lampiran 8

Tabel matriks terbobot

	HB	LP	HJ	MK	Jumlah
$A1$	0,482	0,158	0,440	1,360	2,440
$A2$	1,446	0,474	0,264	0,816	3,000
$A3$	0,964	0,632	0,352	1,360	3,308
$A4$	1,928	0,790	0,440	0,544	3,702
$A5$	2,410	0,474	0,264	0,816	3,964

Lampiran 9
Perhitungan TOPSIS

$$X = \begin{matrix} 1 & 1 & 5 & 5 \\ 3 & 3 & 3 & 3 \\ 2 & 4 & 4 & 5 \\ 4 & 5 & 5 & 2 \\ 5 & 3 & 3 & 3 \end{matrix}$$

Normalisasi matriks keputusan

$X_1 = \sqrt{1^2 + 3^2 + 2^2 + 4^2 + 5^2}$=7,416

$|x_2| = \sqrt{1^2 + 3^2 + 4^2 + 5^2 + 3^2} = 7{,}745$

$|x_3| = \sqrt{1^2 + 3^2 + 4^2 + 5^2 + 2^2} = 9{,}165$

$|x_4| = \sqrt{5^2 + 3^2 + 5^2 + 2^2 + 3^2} = 8{,}485$

$$r_{ij} = \frac{x_{ij}}{\sqrt{\sum_{i=1}^{m} (x_{ij})^2}}$$

$r_{11} = \frac{x_{11}}{X_1} = \frac{1}{7{,}416198}$ =0,13484

$r_{21} = \frac{x_{21}}{X_1} = \frac{3}{7{,}416198}$ =0,40451

$r_{31} = \frac{x_{31}}{X_1} = \frac{2}{7{,}416198}$ =0,26967

$r_{41} = \frac{x_{41}}{X_1} = \frac{4}{7{,}416198}$ =0,53935

$r_{51} = \frac{x_{51}}{X_1} = \frac{5}{7{,}416198}$ =0,67419

$r_{12} = \frac{x_{12}}{X_2} = \frac{1}{7{,}745}$ =0,12909

$r_{22} = \frac{x_{22}}{X_2} = \frac{3}{7{,}745}$ =0,38729

$r_{32}= \frac{x_{32}}{X_2} = \frac{4}{7{,}745}$ =0,51639

$r_{42}= \frac{x_{42}}{X_2} = \frac{5}{7{,}745}$ =0,64549

$r_{52}= \frac{x_{52}}{X_2} = \frac{3}{7{,}745}$ =0,38729

$r_{13}= \frac{x_{13}}{X_3} = \frac{5}{9{,}165}$ =0,54554

$r_{23}= \frac{x_{23}}{X_3} = \frac{3}{9{,}165}$ =0,32732

$r_{33}= \frac{x_{33}}{X_3} = \frac{4}{9{,}165}$ =0,43643

$r_{43}= \frac{x_{43}}{X_3} = \frac{5}{9{,}165}$ =0,54554

$r_{53}= \frac{x_{53}}{X_3} = \frac{3}{9{,}165}$ =0,32732

$r_{14}= \frac{x_{14}}{X_3} = \frac{5}{8{,}485}$ =0,54554

$r_{24}= \frac{x_{24}}{X_3} = \frac{3}{8{,}485}$ =0,32732

$r_{34}= \frac{x_{34}}{X_3} = \frac{5}{8{,}485}$ =0,43643

$r_{44}= \frac{x_{44}}{X_3} = \frac{2}{8{,}485}$ =0,54554

$r_{54}= \frac{x_{54}}{X_3} = \frac{3}{8{,}485}$ =0,32732

Lampiran 10

Pembobotan pada matriks ternormalisasi

	HB	LP	HJ	MK
A1	0,40452	0,38729	2,72772	2,94627
A2	1,21356	1,16189	1,63663	1,76776
A3	0,80904	1,54919	2,18217	2,94627
A4	1,61808	1,93649	2,72772	1,17851
A5	2,02260	1,16189	1,63663	1,76776

$v_{11} = W_1 r_{11} = 3 \times 0{,}13484$ =0,40452

$v_{21} = W_1 r_{21} = 3 \times 0{,}40452$= 1,21356

$v_{31} = W_1 r_{31} = 3 \times 0{,}26968$= 0,80904

$v_{41} = W_1 r_{41} = 3 \times 0{,}53936$= 1,61808

$v_{51} = W_1 r_{51} = 3 \times 0{,}13484$ = 2,02260

$v_{12} = W_1 r_{12} = 3 \times 0{,}12909$ =0,38729

$v_{22} = W_1 r_{22} = 3 \times 0{,}38729$= 1,63663

$v_{32} = W_1 r_{32} = 3 \times 0{,}51639$= 0,80904

$v_{42} = W_1 r_{42} = 3 \times 0{,}64549$ = 2,18217

$v_{52} = W_1 r_{52} = 3 \times 0{,}38729$= 2,72772

$v_{13} = W_1 r_{13} = 4 \times 0{,}54554$ =2,72772

$v_{23} = W_1 r_{23} = 4 \times 0{,}32732 = 1{,}63663$

$v_{33} = W_1 r_{33} = 4 \times 0{,}43643 = 2{,}18217$

$v_{43} = W_1 r_{43} = 4 \times 0{,}54554 = 2{,}72772$

$v_{53} = W_1 r_{53} = 4 \times 0{,}32732 = 1{,}63663$

$v_{14} = W_1 r_{14} = 4 \times 0{,}58925 = 2{,}94627$

$v_{24} = W_1 r_{24} = 4 \times 0{,}35355 = 1{,}76776$

$v_{34} = W_1 r_{34} = 4 \times 0{,}58925 = 2{,}94627$

$v_{44} = W_1 r_{44} = 4 \times 0{,}23570 = 1{,}17851$

$v_{54} = W_1 r_{54} = 4 \times 0{,}35355 = 1{,}76776$

Lampiran 11

solusi ideal positif

$v_1^+ = maks\ 0{,}40452\ ;\ 0{,}38729\ ;\ 2{,}72772\ ;\ 2{,}94627\ = 2{,}94627$

$v_2^+ = maks\ 1{,}21356\ ;\ 1{,}16189\ ;\ 1{,}63663\ ;\ 1{,}76776\ = 1{,}76776$

$v_3^+ = maks\ 0{,}80904\ ;\ 1{,}54919\ ;\ 2{,}18217\ ;\ 2{,}94627\ = 2{,}94627$

$v_4^+ = maks\ 1{,}61808\ ;\ 1{,}93649\ ;\ 2{,}72772\ ;\ 1{,}17851\ = 2{,}72772$

$v_5^+ = maks\ 2{,}02260\ ;\ 1{,}16189;\ 1{,}16189;\ 1{,}76776\ = 2{,}02260$

Solusi ideal negatif

$v_1^- = min\ 0{,}40452\ ;\ 0{,}38729\ ;\ 2{,}72772\ ;\ 2{,}94627\ = 0{,}38729$

$v_2^- = min\ 1{,}21356\ ;\ 1{,}16189\ ;\ 1{,}63663\ ;\ 1{,}76776\ = 1{,}16189$

$v_3^- = min\ 0{,}80904\ ;\ 1{,}54919\ ;\ 2{,}18217\ ;\ 2{,}94627\ = 0{,}80904$

$v_4^- = min\ 1{,}61808\ ;\ 1{,}93649\ ;\ 2{,}72772\ ;\ 1{,}17851\ = 1{,}17851$

$v_5^- = min\ 2{,}02260\ ;\ 1{,}16189;\ 1{,}16189;\ 1{,}76776\ = 1{,}16189$

Lampiran 12

Menghitung *Separation Measure*

$$S_1^+ = \sqrt{\sum_{j=1}^{n} \left(v_1^+ + v_{1j}\right)^2} = 3{,}61340$$

$$S_2^+ = \sqrt{\sum_{j=1}^{n} \left(v_2^+ + v_{1j}\right)^2} = 0{,}83158$$

$$S_3^+ = \sqrt{\sum_{j=1}^{n} \left(v_3^+ + v_{1j}\right)^2} = 2{,}66523$$

$$S_4^+ = \sqrt{\sum_{j=1}^{n} \left(v_4^+ + v_{1j}\right)^2} = 2{,}06335$$

$$S_5^+ = \sqrt{\sum_{j=1}^{n} \left(v_5^+ + v_{1j}\right)^2} = 0{,}97709$$

$$S_1^- = \sqrt{\sum_{j=1}^{n} \left(v_1^- + v_{1j}\right)^2} = 3{,}46789$$

$$S_2^- = \sqrt{\sum_{j=1}^{n} \left(v_2^- + v_{1j}\right)^2} = 0{,}77144$$

$$S_3^- = \sqrt{\sum_{j=1}^{n} \left(v_3^- + v_{1j}\right)^2} = 2{,}64596$$

$$S_4^- = \sqrt{\sum_{j=1}^{n} \left(v_4^- + v_{1j}\right)^2} = 1{,}77983$$

$$S_5^- = \sqrt{\sum_{j=1}^{n} \left(v_5^- + v_{1j}\right)^2} = 1{,}15467$$

Lampiran 13 Nilai prefrensi setiap alternatif

$$A_1 = \frac{S_1^-}{S_1^- + S_1^+} = \frac{3{,}46789}{3{,}46789 + 0{,}83151} = 0{,}48972$$

$$A_2 = \frac{S_2^-}{S_2^- + S_2^+} = \frac{0{,}77144}{0{,}77144 + 0{,}83151} = 0{,}48126$$

$$A_3 = \frac{S_3^-}{S_3^- + S_3^+} = \frac{2{,}64596}{2{,}64596 + 2{,}66523} = 0{,}49818$$

$$A_4 = \frac{S_4^-}{S_4^- + S_4^+} = \frac{1{,}77983}{1{,}77983 + 2{,}06335} = 0{,}46311$$

$$A_5 = \frac{S_5^-}{S_5^- + S_5^+} = \frac{1{,}15467}{1{,}15467 + 0{,}97709} = 0{,}54165$$

Lampiran 14

KUISIONER PENELITIAN

Kuisioner Penentuan Tingkat Kepentingan Kriteria dalam Pemilihan Bibit Kentang

Oleh: Meilinda Kristiatmo

MAHASISWA MATEMATIKA
FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM
UNIVERSITAS BRAWIJAYA
MALANG

No	Kriteria	Sangat penting	Cukup Penting	Tidak Penting
1	Harga Bibit			
2	Perawatan			
3	Lama Panen			
4	Banyaknya Hasil			
5	Harga Jual			
6	Kesulitan Pemeliharaan			
7	Minat Konsumen			