LAMPIRAN

Data Kecepatan Angin
Stasiun Klimatologi Getas - Salatiga
Tinggi 300 m dpl
Koordinat $7^0 16^1$ LS dan $110^0 26^1$ BT

Tahun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Rata2x
1985	2.1	3.2	2	0.9	3	5.1	7.9	16.8	16.3	13.8	2.1	1.7	6.24167
1986	0.3	0.1	0.1	0.1	0.3	0.1	0.4	0.7	0.4	0.4	0.5	1.5	0.40833
1987	0	0	0.1	0.1	0.2	0.2	0.5	0.8	0.8	0.5	0.4	0	0.3
1988	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.3	0.5	0.5	3	2.9	0.68333
1989	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.3	0.4	0.4	2.5	2.5	0.6
1990	3.8	2.8	4.3	1.8	1.6	5	5.5	5.6	5.8	8.9	7.6	4.9	4.8
1991	0.1	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.2	3	0.50833
1992	0.3	0.3	3.2	2.5	2.3	2.8	3.6	0.3	0.5	0.3	0.2	2.9	1.6
1993	8.1	1.7	13.3	12	8.9	10	14.6	31	2.1	2.1	1.9	2.9	9.05
1994	0.2	0.2	0.1	0.1	0.2	0.6	0.7	0.8	0.7	0.8	0.3	0.3	0.41667
1995	5.7	7.2	3.8	2.8	2.6	1.8	2.7	8.6	8	5.2	2.5	4.8	4.64167
1996	2.4	1.7	3.2	2.6	2.1	2.7	3.6	6.1	2.1	2.1	1.9	3	2.79167
1997	2.4	1.7	3.2	2.6	2.1	2.7	3.6	6.1	2.1	2.1	1.9	3	2.79167
1998	0.5	0.4	0.5	0.7	0.6	0.6	0.6	0.9	0.7	0.5	1.9	1.7	0.8
1999	0.2	0.7	0.4	0.5	0.5	0.6	0.7	1.1	0.8	0.8	0.7	3	0.83333
Rata2x	1.77	1.367	2.307	1.813	1.667	2.18	3.0067	5.32	2.773	2.593	1.84	2.54	2.43111

Sumber : Badan Klimatologi Jawa Tengah

Data Penyinaran Matahari
Stasiun Klimatologi Getas - Salatiga
Tinggi 300 m dpl
Koordinat $7^0 16^1$ LS dan $110^0 26^1$ BT

Tahun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Rata2x
1985	44	34	34	41	60	58	59	71	61	54	48	33	49.75
1986	16	37	38	47	64	47	59	60	55	54	40	53	47.5
1987	16	24	41	57	63	59	69	74	65	65	49	32	51.1667
1988	25	36	36	48	52	59	68	63	64	60	30	30	47.5833
1989	34	18	32	50	45	48	52	58	74	58	51	40	46.6667
1990	20	57	37	70	63	77	84	84	79	93	83	30	64.75
1991	24	33	49	60	78	81	76	87	87	85	43	43	62.1667
1992	34	35	52	39	44	56	64	54	57	52	36	44	47.25
1993	38	55	62	66	83	73	84	82	94	97	66	50	70.8333
1994	23	42	37	57	83	91	75	89	87	91	57	43	64.5833
1995	34	43	42	67	78	64	82	87	79	76	48	39	61.5833
1996	38	37	69	63	75	73	80	77	77	72	67	53	65.0833
1997	29	38	73	51	82	90	85	87	96	93	82	57	71.9167
1998	68	51	54	67	74	68	68	90	73	65	32	26	61.3333
1999	32	35	48	57	78	84	80	89	95	75	52	43	64
Rata2x	31.7	38.33	46.93	56	68.13	68.53	72.333	76.8	76.2	72.67	52.27	41.07	58.4111

Sumber : Badan Klimatologi Jawa Tengah

Data Temperatur Udara Rata2x
Stasiun Klimatologi Getas - Salatiga
Tinggi 300 m dpl
Koordinat $7^0\,16^1$ LS dan $110^0\,26^1$ BT

Tahun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Rata2x
1985	24	24.2	24	24.3	25.7	25.1	24.5	25.2	25.5	25.5	25.1	24.2	24.775
1986	23.8	23.7	24.3	25	25.8	24.9	24.6	24.8	25.4	25.5	24.8	25.2	24.8167
1987	23	23.5	24	25.9	25.8	25.6	25.6	25.3	26.2	27.1	26	24.9	25.2417
1988	24.4	24.5	25.1	26.1	26.5	25.3	25.4	25.9	26.6	26.5	24.9	24.1	25.4417
1989	24.3	23.3	24.1	25	25.2	24.4	25	25	26.2	26	25.2	24.6	24.8583
1990	23.8	24.5	24.8	26.1	25.5	25.5	25.5	26.2	26.3	26.8	26.7	24.2	25.4917
1991	22.6	24.1	25.1	25	25.8	25.7	25.5	26	26.5	27.1	25.6	25.1	25.3417
1992	24.3	24	25.2	25.2	26.1	25.8	25.4	25.3	26	26	25.1	24.2	25.2167
1993	24.1	24.2	25	25	26.5	25.8	25.4	25.8	25.7	26.5	26.3	25	25.4417
1994	23.8	24.3	24	25.5	25.3	25.6	24.7	25	25.7	26.6	26.3	24.7	25.125
1995	23.9	24.4	24.2	25.1	25.7	25.2	24.7	24.7	25.9	26	24.6	24.2	24.8833
1996	23.7	23.8	24.8	25.3	25.7	25.6	25.3	24.9	25.9	26.1	25.3	24.5	25.075
1997	23.7	24.5	25	25.2	25.6	25.7	24.9	24.9	25.8	27.1	27.1	25.1	25.3833
1998	25.5	25.3	25.7	26.4	26.6	26	25.4	26.2	26.5	26.3	24.7	24.2	25.7333
1999	24	24.1	24.6	24.9	25.3	25.6	24.6	25.2	26.4	26.4	24.9	25.1	25.0917
Rata2x	23.9	24.16	24.66	25.33	25.81	25.45	25.1	25.36	26.04	26.37	25.51	24.62	25.1944

Sumber : Badan Klimatologi Jawa Tengah

Data Kelembaban Udara Rata2x
Stasiun Klimatologi Getas - Salatiga
Tinggi 300 m dpl
Koordinat $7^0\,16^1$ LS dan $110^0\,26^1$ BT

Tahun	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Rata2x
1985	91	93	93	91	87	87	85	81	81	86	89	92	88
1986	94	93	92	90	84	90	83	79	83	85	89	89	87.5833
1987	96	96	91	88	87	85	81	79	80	79	87	93	86.8333
1988	94	93	92	89	89	85	82	80	77	82	92	93	87.3333
1989	93	97	93	90	91	91	85	82	77	83	88	92	88.5
1990	96	92	91	89	88	84	84	84	82	79	82	93	87
1991	98	94	89	90	84	83	81	81	78	79	89	95	86.75
1992	85	93	90	91	87	85	83	86	84	86	91	93	87.8333
1993	94	92	90	90	87	87	82	84	81	81	86	92	87.1667
1994	96	95	94	89	81	81	80	79	78	80	86	91	85.8333
1995	95	92	92	88	85	88	83	78	78	84	90	91	87
1996	92	93	89	87	83	84	81	81	80	82	87	89	85.6667
1997	90	88	86	86	85	81	78	79	75	74	79	89	82.5
1998	89	91	87	89	87	88	88	78	78	84	89	90	86.5
1999	93	89	90	89	86	81	80	79	75	82	87	85	84.6667
Rata2x	93.1	92.73	90.6	89.07	86.07	85.33	82.4	80.67	79.13	81.73	87.4	91.13	86.6111

Sumber : Badan Klimatologi Jawa Tengah

Lampiran I : Keputusan Bupati Semarang
Nomor : 520.2/0434/2000
Tanggal : 31- 8 - 2000

RENCANA JADWAL TANAM DAN KEBUTUHAN AIR UNTUK MUSIM TANAM RENDENGAN
TAHUN 2000/2001 DAN MUSIM GADU TAHUN 2001

LUAS SAWAH : 81 Ha.
DAERAH IRIGASI : KENTENG, KEC. PABELAN

No	URAIAN	I				BULAN II												III							
		OKT		NOV		DES		JAN		FEB		MAR		APR		MEI		JUNI		JULI		AGST		SEPT	
		I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II
1	ROTASI : Ha					PADI									PADI						PA	LA	Wi	JA	
	DEBIT YANG DIBUTUHKAN	G	A	B			C		D	E	F	A	B		C				D	E	F		G		
	(L/dt)	-	51	101	81	61	61	64	46	16	-	51	101	81	61	61	64	46	16	12	24	24	24	24	24
2	ROTASI : Ha																								
	DEBIT YANG DIBUTUHKAN																								
	(L/dt)																								
3	DEBIT SUNGAI (L/dt)	21	202	247	368	216	207	205	170	104	92	66	56	72	59	79	59	44	38	61	107	63	100	270	365
4	DEBIT SUPLESI (L/dt)																								
5	HUJAN EFFEKTIF (L/dt)	3	2	4	5	7	10	20	18	12	11	9	12	9	7	3	2	7	5	1	1	2	2	2	1
6	DEBIT TERSEDIA (L/dt)	44	55	56	66	88	83	92	88	86	87	92	91	88	82	66	52	58	50	51	65	49	43	33	39
7	DEBIT KESUTUHAN (L/dt)	-	51	101	81	61	61	64	46	16	-	51	101	81	61	61	64	46	16	12	24	24	24	24	24
8	Q (+/-)	44	4	-45	-20	26	22	28	42	70	87	41	-10	7	21	5	-12	12	34	39	41	25	18	9	15
9	KEMAMPUAN	1	1	0.55	0.81	1	1	1	1	1	1	1	0.90	1	1	0.81	1	1	1	1	1	1	1	1	1

KETERANGAN :

A	PENGERINGAN	15 DAN 7 HARI
B	LALAHAN/PEMBIBITAN	1 BULAN = 1,25 L/dt/Ha
C	PERTUMBUHAN	1,50 BULAN = 0,75 L/dt/Ha
D	PEMBUNGAAN	1 DAN 0,50 BULAN = 0,86 L/dt/Ha
E	PEMASAKKAN	0,50 BULAN = 0,40 L/dt/Ha
F	PANEN	0,50 BULAN = 0,00 L/dt/Ha
G	PALAWIJA	3 BULAN = 0,30 L/dt/Ha

L3

RENCANA JADWAL TANAM DAN KEBUTUHAN AIR UNTUK MUSIM TANAM RENDENGAN
TAHUN 2000/2001 DAN MUSIM GADU TAHUN 2001

LUAS SAWAH : 621.37 Ha
DAERAH IRIGASI : CEPOKO. KEC. PABELAN

NO	URAIAN	BULAN																							
		OKT		NOP		DES		JAN		PEB		MAR		APR		MEI		JUNI		JULI		AGT		SEPT	
		I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II
1	ROTASI I :372 Ha					PADI								PADI							PALAWIJA				
	DEBIT YANG DIBUTUHKAN	A		B		C		D		E	F	A		B		C		D		E	F	G			
	(L/ld)		79	159	100	134	134	109	79	10		127	154	217	180	180	153	97	33	56	111	111	111	111	111
2	ROTASI II : 249,37 Ha						PADI									PADI						PALAWIJA			
	DEBIT YANG DIBUTUHKAN	G	A		B		C		D	E	F	A		B		C		D	E	F		G			
	(L/ld)	30		75	151	139	127	127	139	75	10		123	247	199	171	171	179	153	30	15	30	30	30	30
3	DEBIT SUNGAI (L/dt)	157	187	154	211	250	298	827	485	544	490	498	523	651	1132	400	291	154	234	391	123	273	143	90	100
4	DEBIT SUPLESI (L/dt)																								
5	HUJAN EFEKTIF (L/dt)	1		3	6	8	10	20	18	13	10	8	7	9	7	3	2	5	3	1	1	2	2	2	1
6	DEBIT TERSEDIA (L/dt)	154	172	137	181	261	278	337	403	477	489	486	438	463	388	308	227	175	134	146	123	123	149	93	98
7	DEBIT KEBUTUHAN (L/dt)	30	79	234	251	273	261	236	218	85	10	127	377	464	379	351	324	276	186	86	126	141	141	141	141
8	Q (+ / -)	124	93	-97	-70	-12	17	101	185	392	479	359	61	-1	9	-43	-97	-101	-52	60	-3	-18	8	-48	-43
9	KEMAMPUAN	1	1	0.6	0.75	1	1	1	1	1	1	1	1	1	1	0.92	0.68	0.61	0.71	1	0.96	1	1	0.62	0.68

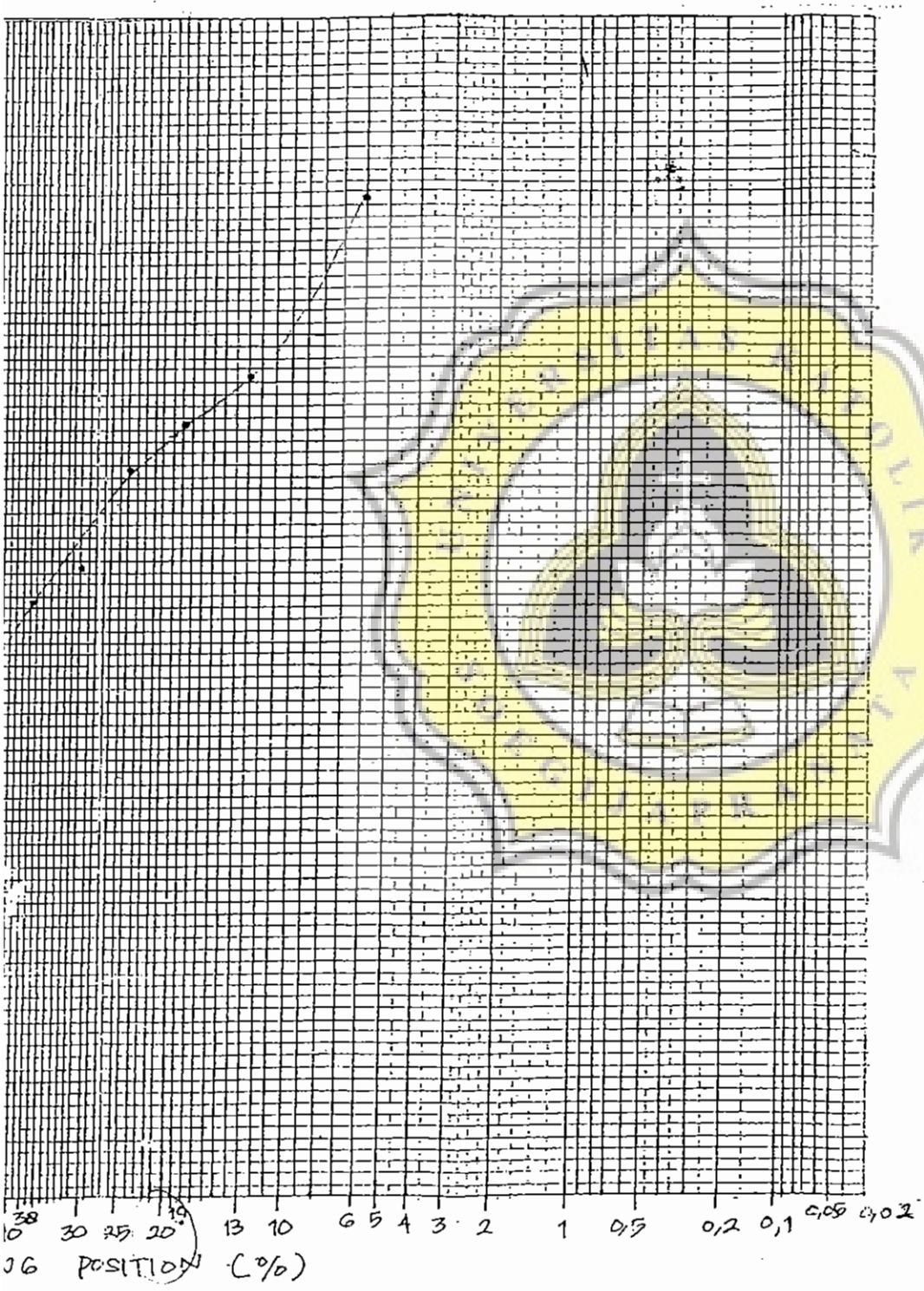
RENCANA JADWAL TANAM DAN KEBUTUHAN AIR UNTUK MUSIM TANAM RENDENGAN
TAHUN 2000/2001 DAN MUSIM GADU TAHUN 2001

LUAS SAWAH : 96.85 Ha
DAERAH IRIGASI : NYAMAT KARANG. KEC. PABELAN

NO	URAIAN	BULAN																							
		OKT		NOP		DES		JAN		PEB		MAR		APR		MEI		JUNI		JULI		AGT		SEPT	
		I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II	I	II
1	ROTASI : Ha					PADI										PADI						PALAWIJA			
	DEBIT YANG DIBUTUHKAN	G	A		B		C		D	E	F	A		B		C		D	E	F	G					
	(L/dt)		76	231	248	270	258	232	213	82		124	375	461	372	347	322	271	185	84	122	139	139	139	139
2	ROTASI : Ha DEBIT YANG DIBUTUHKAN (L/td)																								
3	DEBIT SUNGAI (L/dt)	157	187	154	211	250	298	827	485	544	490	498	523	651	1132	400	291	154	234	391	123	273	143	90	100
4	DEBIT SUPLESI (L/dt)																								
5	HUJAN EFEKTIF (L/dt)	1		3	6	8	10	20	18	13	10	8	7	9	7	3	2	5	3	1	1	2	2	2	1
6	DEBIT TERSEDIA (L/dt)	154	172	137	181	261	278	337	403	477	489	486	438	463	388	308	227	175	134	146	123	123	149	93	98
7	DEBIT KEBUTUHAN (L/dt)		76	231	248	270	258	232	213	82		124	375	461	372	347	322	271	185	84	122	139	139	139	139
8	Q (+ / -)	154	96	-94	-67	-9	20	105	190	395	489	362	63	2	16	-39	-95	-96	-51	62	1	-16	10	-46	-41
9	KEMAMPUAN	1	1	0.58	0.72	1	1	1	1	1	1	1	1	1	1	0.92	0.68	0.61	0.71	1	0.96	1	1	0.62	0.68

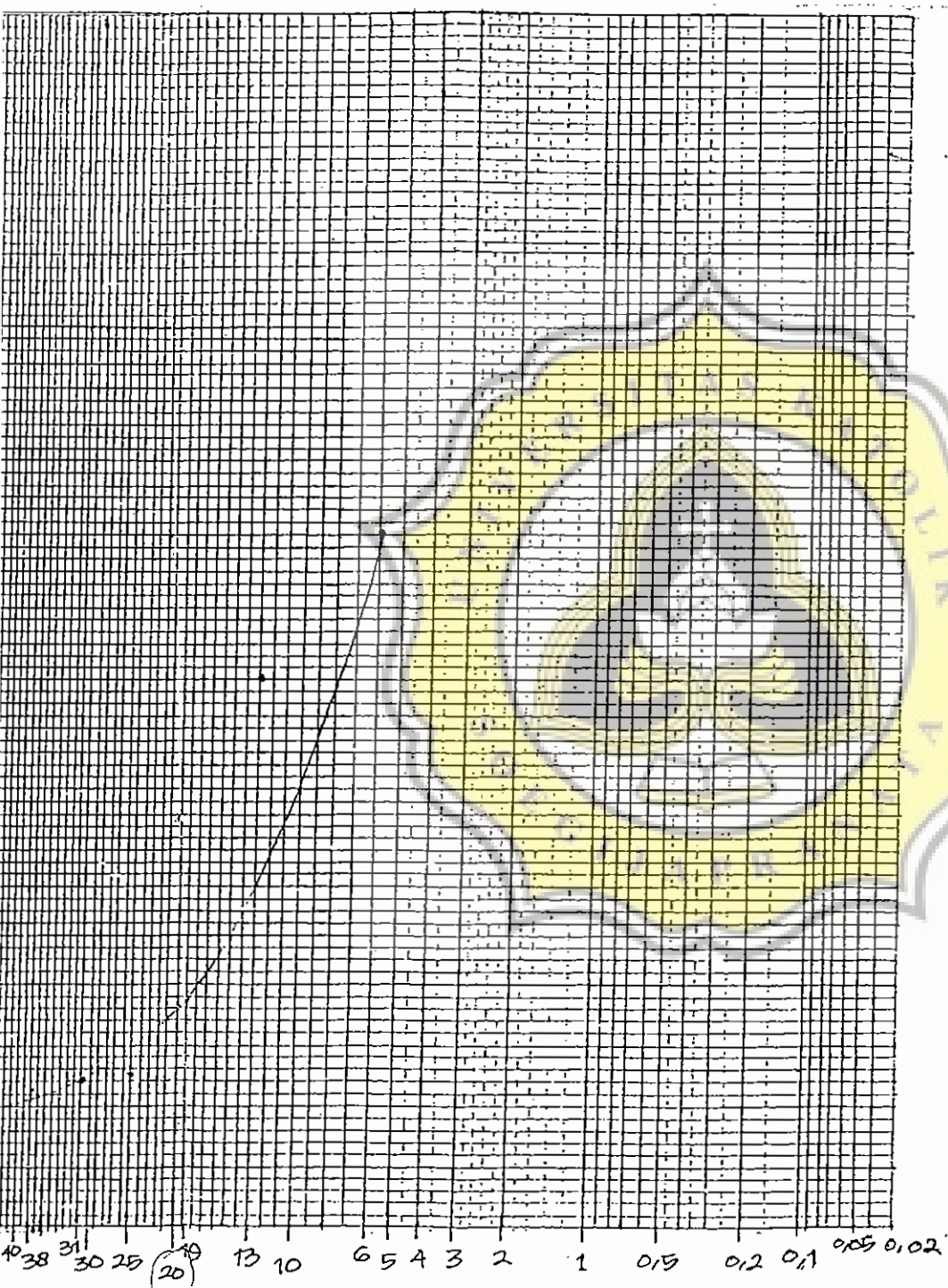
P_{avg} = 2224 mm P_{nor} (50%) = 2189 mm

P_{dry} (80%) = 1420 mm P_{wet} (20%) = 2935 mm



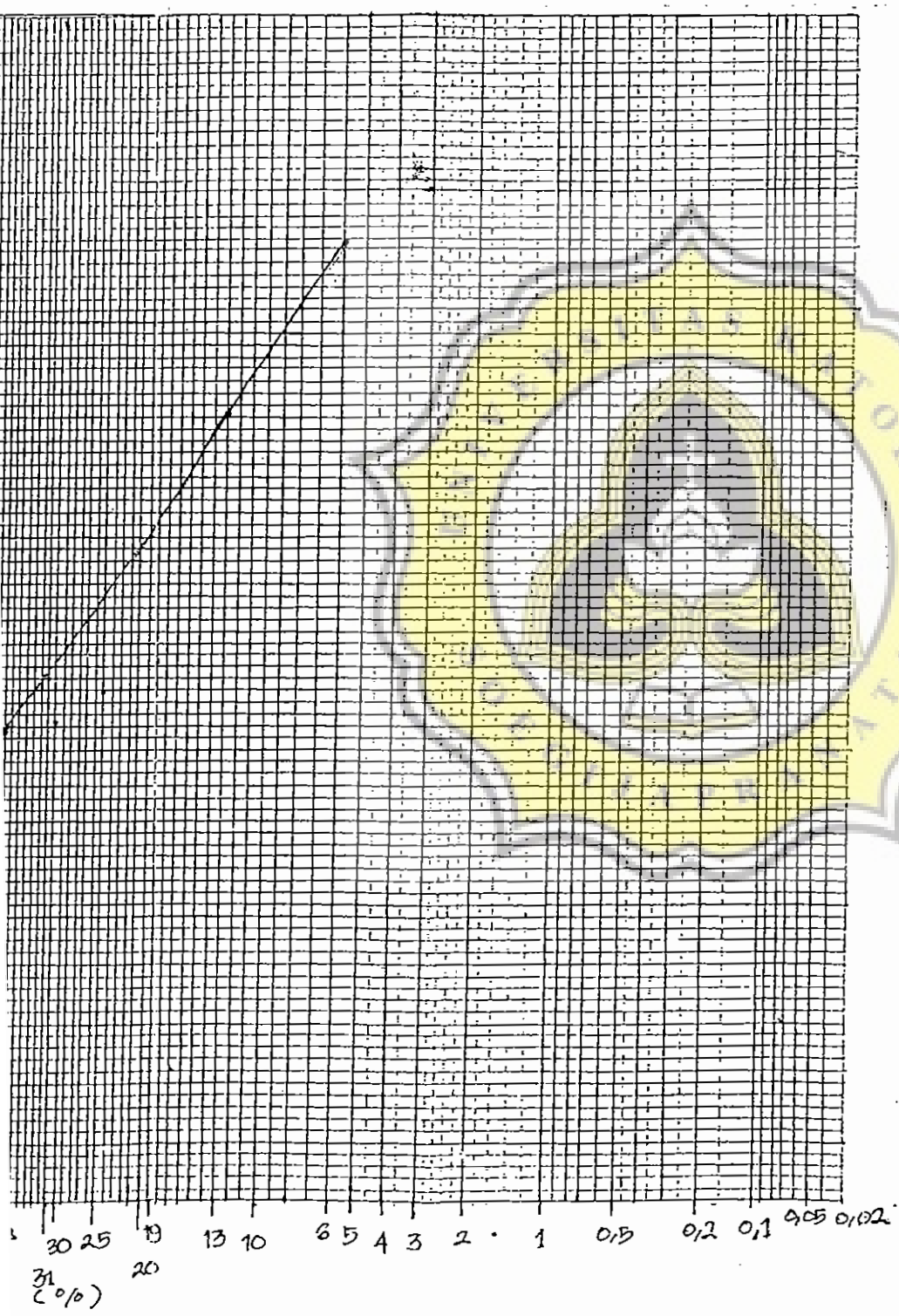
Q_{avg} = 14,644 m³/det Q_{nor} (50%) = 9,0 m³/det

Q_{dry} (80%) = 6,0 m³/det Q_{wet} (20%) = 18,0 m³/det



$Q_{avg} = 9,477$ m³/det $Q_{nor\,(50\%)} = 8,617$ m³/det

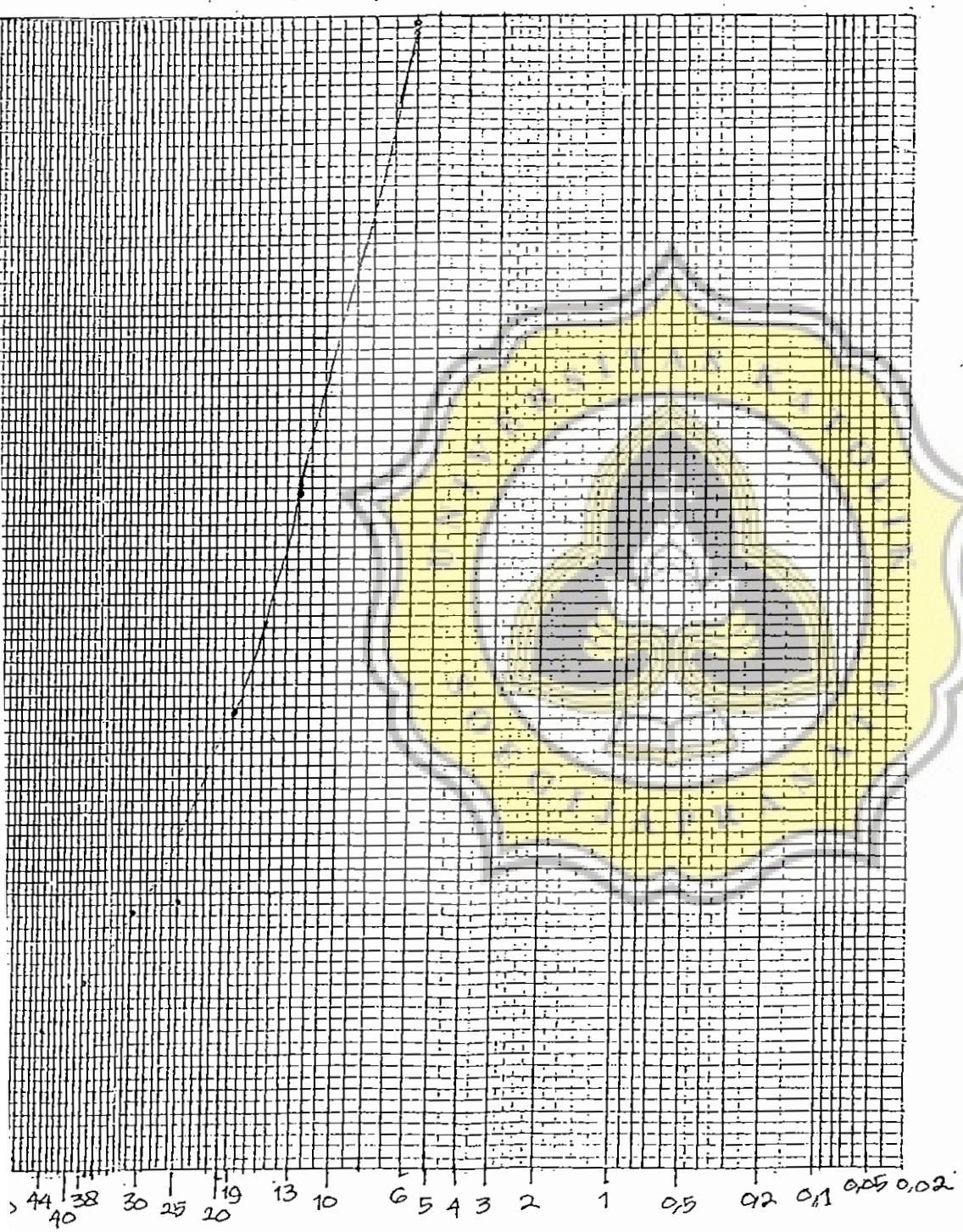
$Q_{dry\,(80\%)} = 4,14$ m³/det $Q_{wet\,(20\%)} = 15,8$ m³/det



NG

Q_{avg} = 7,128 m³/det Q nor (50%) = 3,35 m³/det

Q dry (80%) = 2,4 m³/det Q wet (20%) = 11,9 m³/det



6 POSITION (%)

Tabel 3.3.a.

Harga prosentase rata-rata harian (p),

jam siang tahunan untuk lintang berbeda-beda

Lintang Utara / Selatan	Jan. Juli	Feb. Agst.	Maret Sept.	April Okt.	Mei Nop.	Juni Des.	Juli Jan.	Agst. Feb.	Sept. Maret	Okt. April	Nop. Mei	Des. Juni
60°	0.15	0.20	0.26	0.32	0.38	0.41	0.40	0.34	0.28	0.22	0.17	0.13
58	0.16	0.21	0.26	0.32	0.37	0.40	0.39	0.34	0.28	0.23	0.18	0.15
56	0.17	0.21	0.26	0.32	0.36	0.39	0.38	0.33	0.28	0.23	0.18	0.16
54	0.18	0.22	0.26	0.31	0.36	0.38	0.37	0.33	0.28	0.23	0.19	0.17
52	0.19	0.22	0.27	0.31	0.35	0.37	0.36	0.33	0.28	0.24	0.20	0.17
50	0.19	0.23	0.27	0.31	0.34	0.36	0.35	0.32	0.28	0.24	0.20	0.18
48	0.20	0.23	0.27	0.31	0.34	0.36	0.35	0.32	0.28	0.24	0.21	0.19
46	0.20	0.23	0.27	0.30	0.34	0.35	0.34	0.32	0.28	0.24	0.21	0.20
44	0.21	0.24	0.27	0.30	0.33	0.35	0.34	0.31	0.28	0.25	0.22	0.20
42	0.21	0.24	0.27	0.30	0.33	0.34	0.33	0.31	0.28	0.25	0.22	0.21
40	0.22	0.24	0.27	0.30	0.32	0.34	0.33	0.31	0.28	0.25	0.22	0.21
35	0.23	0.25	0.27	0.29	0.31	0.32	0.32	0.30	0.28	0.25	0.23	0.22
30	0.24	0.25	0.27	0.29	0.31	0.32	0.31*	0.30	0.28	0.26	0.24	0.23
25	0.24	0.26	0.27	0.29	0.30	0.31	0.31	0.29	0.28	0.26	0.25	0.24
20	0.25	0.26	0.27	0.28	0.29	0.30	0.30	0.29	0.28	0.26	0.25	0.25
15	0.26	0.26	0.27	0.28	0.29	0.29	0.29	0.28	0.28	0.27	0.26	0.25
10	0.26	0.27	0.27	0.28	0.28	0.29	0.29	0.28	0.28	0.27	0.26	0.26
5	0.27	0.27	0.27	0.28	0.28	0.28	0.28	0.28	0.28	0.27	0.27	0.27
0	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27

Tabel 3.4.a. : Harga Ra dalam evaporasi ekivalen (mm/hari)

Lintang	Belahan bumi utara											
	Jan.	Feb.	Maret	April	Mei	Juni	Juli	Agst.	Sept.	Okt.	Nop.	Des.
50°	3.8	6.1	9.4	12.7	15.8	17.1	16.4	14.1	10.9	7.4	4.5	3.2
48	4.3	6.6	9.8	13.0	15.9	17.2	16.5	14.3	11.2	7.8	5.0	3.7
46	4.9	7.1	10.2	13.3	16.0	17.2	16.6	14.5	11.5	8.3	5.5	4.3
44	5.3	7.6	10.6	13.7	16.1	17.2	16.6	14.7	11.9	8.7	6.0	4.7
42	5.9	8.1	11.0	14.0	16.2	17.3	16.7	15.0	12.2	9.1	6.5	5.2
40	6.4	8.6	11.4	14.3	16.4	17.3	16.7	15.2	12.5	9.6	7.0	5.7
38	6.9	9.0	11.8	14.5	16.4	17.2	16.7	15.3	12.8	10.0	7.5	6.1
36	7.4	9.4	12.1	14.7	16.4	17.2	16.7	15.4	13.1	10.6	8.0	6.6
34	7.9	9.8	12.4	14.8	16.5	17.1	16.8	15.5	13.4	10.8	8.5	7.2
32	8.3	10.2	12.8	15.0	16.5	17.0	16.8	15.6	13.6	11.2	9.0	7.8
30	8.8	10.7	13.1	15.2	16.5	17.0	16.8*	15.7	13.9	11.6	9.5	8.3
28	9.3	11.1	13.4	15.3	16.5	16.8	16.7	15.7	14.1	12.0	9.9	8.8
26	9.8	11.5	13.7	15.3	16.4	16.7	16.6	15.7	14.3	12.3	10.3	9.3
24	10.2	11.9	13.9	15.4	16.4	16.6	16.5	15.8	14.5	12.6	10.7	9.7
22	10.7	12.3	14.2	15.5	16.3	16.4	16.4	15.8	14.6	13.0	11.1	10.2
20	11.2	12.7	14.4	15.6	16.3	16.4	16.3	15.9	14.8	13.3	11.6	10.7
18	11.6	13.0	14.6	15.6	16.1	16.1	16.1	15.8	14.9	13.6	12.0	11.1
16	12.0	13.3	14.7	15.6	16.0	15.9	15.9	15.7	15.0	13.9	12.4	11.6
14	12.4	13.6	14.9	15.7	15.8	15.7	15.7	15.7	15.1	14.1	12.8	12.0
12	12.8	13.9	15.1	15.7	15.7	15.5	15.5	15.6	15.2	14.4	13.3	12.5
10	13.2	14.2	15.3	15.7	15.5	15.3	15.3	15.5	15.3	14.7	13.6	12.9
8	13.6	14.5	15.3	15.6	15.3	15.0	15.1	15.4	15.3	14.8	13.9	13.3
6	13.9	14.8	15.4	15.4	15.1	14.7	14.9	15.2	15.3	15.0	14.2	13.7
4	14.3	15.0	15.5	15.5	14.9	14.4	14.6	15.1	15.3	15.1	14.5	14.1
2	14.7	15.3	15.6	15.3	14.6	14.2	14.3	14.9	15.3	15.3	14.8	14.4
0	15.0	15.5	15.7	15.3	14.4	13.9	14.1	14.8	15.3	15.4	15.1	14.8

Tabel 3.4.a. : Harga Ra dalam evaporasi ekivalen (mm/hari)

Lintang	Belahan bumi selatan											
	Jan.	Feb.	Maret	April	Mei	Juni	Juli	Agst.	Sept.	Okt.	Nop.	Des.
50°	17.5	14.7	10.9	7.0	4.2	3.1	3.5	5.5	8.9	12.9	16.5	18.2
48	17.6	14.9	11.2	7.5	4.7	3.5	4.0	6.0	9.3	13.2	16.6	18.2
46	17.7	15.1	11.5	7.9	5.2	4.0	4.4	6.5	9.7	13.4	16.7	18.3
44	17.8	15.3	11.9	8.4	5.7	4.4	4.9	6.9	10.2	13.7	16.7	18.3
42	17.8	15.5	12.2	8.8	6.1	4.9	5.4	7.4	10.6	14.0	16.8	18.3
40	17.9	15.7	12.5	9.2	6.6	5.3	5.9	7.9	11.0	14.2	16.9	18.3
38	17.9	15.8	12.8	9.6	7.1	5.8	6.3	8.3	11.4	14.4	17.0	18.3
36	17.9	16.0	13.2	10.1	7.5	6.3	6.8	8.8	11.7	14.6	17.0	18.2
34	17.8	16.1	13.5	10.5	8.0	6.8	7.2	9.2	12.0	14.9	17.1	18.2
32	17.8	16.2	13.8	10.9	8.5	7.3	7.7	9.6	12.4	15.1	17.2	18.1
30	17.8	16.4	14.0	11.3	8.9	7.8	8.1	10.1	12.7	15.3	17.3	18.1
28	17.7	16.4	14.3	11.6	9.3	8.2	8.6	10.4	13.0	15.4	17.2	17.9
26	17.6	16.4	14.4	12.0	9.7	8.7	9.1	10.9	13.2	15.5	17.2	17.8
24	17.5	16.5	14.6	12.3	10.2	9.1	9.5	11.2	13.4	15.6	17.1	17.7
22	17.4	16.5	14.8	12.6	10.6	9.6	10.0	11.6	13.7	15.7	17.0	17.5
20	17.3	16.5	15.0	13.0	11.0	10.0	10.4	12.0	13.9	15.8	17.0	17.4
18	17.1	16.5	15.1	13.2	11.4	10.4	10.8	12.3	14.1	15.8	16.8	17.1
16	16.9	16.4	15.2	13.5	11.7	10.8	11.2	12.6	14.3	15.8	16.7	16.8
14	16.7	16.4	15.3	13.7	12.1	11.2	11.6	12.9	14.5	15.8	16.5	16.6
12	16.6	16.3	15.4	14.0	12.5	11.6	12.0	13.2	14.7	15.8	16.4	16.5
10	16.4	16.3	15.5	14.2	12.8	12.0	12.4	13.5	14.8	15.9	16.2	16.2
8	16.1	16.1	15.5	14.4	13.1	12.4	12.7	13.7	14.9	15.8	16.0	16.0
6	15.8	16.0	15.6	14.7	13.4	12.8	13.1	14.0	15.0	15.7	15.8	15.7
4	15.5	15.8	15.6	14.9	13.8	13.2	13.4	14.3	15.1	15.6	15.5	15.4
2	15.3	15.7	15.7	15.1	14.1	13.5	13.7	14.5	15.2	15.5	15.3	15.1
0	15.0	15.5	15.7	15.3	14.4	13.9	14.1	14.8	15.3	15.4	15.1	14.8

Tabel 3.4.b.

Harga N untuk lintang yang berbeda-beda

Lintang Utara / Lintang Selatan	Jan. / Juli	Feb. / Agst.	Maret / Sept.	April / Okt.	Mei / Nop.	Juni / Des.	Juli / Jan.	Agst. / Feb.	Sept. / Maret	Okt. / April	Nop. / Mei	Des. / Juni
50°	8.5	10.1	11.8	13.8	15.4	16.3	15.9	14.5	12.7	10.8	9.1	8.1
48	8.8	10.2	11.8	13.6	15.2	16.0	15.6	14.3	12.6	10.9	9.3	8.3
46	9.1	10.4	11.9	13.5	14.9	15.7	15.4	14.2	12.6	10.9	9.5	8.7
44	9.3	10.5	11.9	13.4	14.7	15.4	15.2	14.0	12.6	11.0	9.7	8.9
42	9.4	10.6	11.9	13.4	14.6	15.2	14.9	13.9	12.6	11.1	9.8	9.1
40	9.6	10.7	11.9	13.3	14.4	15.0	14.7	13.7	12.5	11.2	10.0	9.3
35	10.1	11.0	11.9	13.1	14.0	14.5	14.3	13.5	12.4	11.3	10.3	9.8
30	10.4	11.1	12.0	12.9	13.6	14.0	13.9*	13.2	12.4	11.5	10.6	10.2
25	10.7	11.3	12.0	12.7	13.3	13.7	13.5	13.0	12.3	11.6	10.9	10.6
20	11.0	11.5	12.0	12.6	13.1	13.3	13.2	12.8	12.3	11.7	11.2	10.9
15	11.3	11.6	12.0	12.5	12.8	13.0	12.9	12.6	12.2	11.8	11.4	11.2
10	11.6	11.8	12.0	12.3	12.6	12.7	12.6	12.4	12.1	11.8	11.6	11.5
5	11.8	11.9	12.0	12.2	12.3	12.4	12.3	12.3	12.1	12.0	11.9	11.8
0	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1

Tabel 3.4.c. Harga W sesuai temperatur dan ketinggian

Temperatur °C	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
W , pada ke - tinggian (m)																				
0	0.43	.46	.49	.52	.55	.58	.61	.64	.66	.68	.71	.73	.75	.77*	.78	.80	.82	.83	.84	.85
500	.45	.48	.51	.54	.57	.60	.62	.65	.67	.70	.72	.74	.76	.78	.79	.81	.82	.84	.85	.86
1 000	.46	.49	.52	.55	.58	.61	.64	.66	.69	.71	.73	.75	.77	.79	.80	.82	.83	.85	.86	.87
2 000	.49	.52	.55	.58	.61	.64	.66	.69	.71	.73	.75	.77	.79	.81	.82	.84	.85	.86	.87	.88
3 000	.52	.55	.58	.61	.64	.66	.69	.71	.73	.75	.77	.79	.81	.82	.84	.85	.86	.88	.88	.89
4 000	.55	.58	.61	.64	.66	.69	.71	.73	.76	.78	.79	.81	.83	.84	.85	.86	.88	.89	.90	.90

Tabel 3.5.a. Tabel ea dalam m bar sebagai fungsi temperatur udara rata-rata (°C)

Temperature °C	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
ea m bar	6.1	6.6	7.1	7.6	8.1	8.7	9.3	10.0	10.7	11.5	12.3	13.1	14.0	15.0	16.1	17.0	18.2	19.4	20.6*	22.0

Temperature °C	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
ea m bar	23.4	24.9	26.4	28.1	29.8	31.7	33.6	35.7	37.8*	40.1	42.4	44.9	47.6	50.3	53.2	56.2	59.4	62.8	66.3	69.9

Catatan : Apabila temperatur yang dibaca merupakan titik embun, maka (ea) dalam tabel adalah (ed).

Tabel 3.5.c. Harga dari $f(u) = 0{,}27 \left(1 + \frac{U}{100} \right)$

pada tinggi 2 meter dinyatakan dalam km/hari

Angin km/hari	0	10	20	30	40	50	60	70	80	90
	-	0.30	0.32	0.35	0.38	0.41	0.43	0.46	0.49	0.51
100	0.54	0.57	0.59	0.62	0.65	0.67	0.70	0.73	0.76	0.78
200	0.81	0.84	0.86	0.89*	0.92	0.94	0.97	1.00	1.03	1.05
300	1.08	1.11	1.13	1.16	1.19	1.21	1.24	1.27	1.30	1.32
400	1.35	1.38	1.40	1.43	1.46	1.49	1.51	1.54	1.57	1.59
500	1.62	1.65	1.67	1.70	1.73	1.76	1.78	1.81	1.84	1.90
600	1.89	1.92	1.94	1.97	2.00	2.02	2.05	2.08	2.11	2.15
700	2.16	2.19	2.21	2.24	2.27	2.29	2.32	2.35	2.38	2.40
800	2.43	2.46	2.48	2.51	2.54	2.56	2.59	2.62	2.64	2.65
900	2.70									

Tabel 3.5.d. Harga dari faktor (1 - W) untuk pengaruh angin dan kelembaban terhadap ETo pada temperatur dan ketinggian yang berbeda-beda.

Temperature °C	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
(1-W) at altitude m																				
0	0.57	.54	.51	.48	.45	.42	.39	.36	.34	.32	.29	.27	.25	.23*	.22	.20	.19	.17	.16	.15
500	.56	.52	.49	.46	.43	.40	.38	.35	.33	.30	.28	.26	.24	.22	.21	.19	.18	.16	.15	.14
1 000	.54	.51	.48	.45	.42	.39	.36	.34	.31	.29	.27	.25	.23	.21	.20	.18	.17	.15	.14	.13
2 000	.51	.48	.45	.42	.39	.36	.34	.31	.29	.27	.25	.23	.21	.19	.18	.16	.15	.14	.13	.12
3 000	.48	.45	.42	.39	.36	.34	.31	.29	.27	.25	.23	.21	.19	.18	.16	.15	.14	.13	.12	.11
4 000	.46	.42	.39	.36	.34	.31	.29	.27	.25	.23	.21	.19	.18	.16	.15	.14	.13	.12	.11	.10

Tabel 3.5.e. Harga dari faktor (W) untuk pengaruh radiasi terhadap ETo pada temperatur dan ketinggian yang berbeda-beda.

Temperature °C	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
W at altitude (m)																				
0	0.43	.46	.49	.52	.55	.58	.61	.64	.66	.69	.71	.73	.75	.77*	.78	.80	.82	.83	.84	.85
500	.44	.48	.51	.54	.57	.60	.62	.65	.67	.70	.72	.74	.76	.78	.79	.81	.82	.84	.85	.86
1 000	.46	.49	.52	.55	.58	.61	.64	.66	.69	.71	.73	.75	.77	.79	.80	.82	.83	.85	.86	.87
2 000	.49	.52	.55	.58	.61	.64	.66	.69	.71	.73	.75	.77	.79	.81	.82	.84	.85	.86	.87	.88
3 000	.52	.55	.58	.61	.64	.66	.69	.71	.73	.75	.77	.79	.81	.82	.84	.85	.86	.87	.88	.89
4 000	.54	.58	.61	.64	.66	.69	.71	.73	.75	.77	.79	.81	.82	.84	.85	.86	.87	.89	.90	.90

Tabel 3.5.f. Harga (Ra) dinyatakan dalam evaporasi ekivalen (mm/hari)

Lintang	Belahan bumi utara											
	Jan.	Feb.	Maret	April	Mei	Juni	Juli	Agst.	Sept.	Okt.	Nop.	Des.
50°	3.8	6.1	9.4	12.7	15.8	17.1	16.4	14.1	10.9	7.4	4.5	3.2
48	4.3	6.6	9.8	13.0	15.9	17.2	16.5	14.3	11.2	7.8	5.0	3.7
46	4.9	7.1	10.2	13.3	16.0	17.2	16.6	14.5	11.5	8.3	5.5	4.3
44	5.3	7.6	10.6	13.7	16.1	17.2	16.6	14.7	11.9	8.7	6.0	4.7
42	5.9	8.1	11.0	14.0	16.2	17.3	16.7	15.0	12.2	9.1	6.5	5.2
40	6.4	8.6	11.4	14.3	16.4	17.3	16.7	15.2	12.5	9.6	7.0	5.7
38	6.9	9.0	11.8	14.5	16.4	17.2	16.7	15.3	12.8	10.0	7.5	6.1
36	7.4	9.4	12.1	14.7	16.4	17.2	16.7	15.4	13.1	10.6	8.0	6.6
34	7.9	9.8	12.4	14.8	16.5	17.1	16.8	15.5	13.4	10.8	8.5	7.2
32	8.3	10.2	12.8	15.0	16.5	17.0	16.8	15.6	13.6	11.2	9.0	7.8
30	8.8	10.7	13.1	15.2	16.5	17.0	16.8*	15.7	13.9	11.6	9.5	8.3
28	9.3	11.1	13.4	15.3	16.5	16.8	16.7	15.7	14.1	12.0	9.9	8.8
26	9.8	11.5	13.7	15.3	16.4	16.7	16.6	15.7	14.3	12.3	10.3	9.3
24	10.2	11.9	13.9	15.4	16.4	16.6	16.5	15.8	14.5	12.6	10.7	9.7
22	10.7	12.3	14.2	15.5	16.3	16.4	16.4	15.8	14.6	13.0	11.1	10.2
20	11.2	12.7	14.4	15.6	16.3	16.4	16.3	15.9	14.8	13.3	11.6	10.7
18	11.6	13.0	14.6	15.6	16.1	16.1	16.1	15.8	14.9	13.6	12.0	11.1
16	12.0	13.3	14.7	15.6	16.0	15.9	15.9	15.7	15.0	13.9	12.4	11.6
14	12.4	13.6	14.9	15.7	15.8	15.7	15.7	15.7	15.1	14.1	12.8	12.0
12	12.8	13.9	15.1	15.7	15.7	15.5	15.5	15.6	15.2	14.4	13.3	12.5
10	13.2	14.2	15.3	15.7	15.5	15.3	15.3	15.5	15.3	14.7	13.6	12.9
8	13.6	14.5	15.3	15.6	15.3	15.0	15.1	15.4	15.3	14.8	13.9	13.3
6	13.9	14.8	15.4	15.4	15.1	14.7	14.9	15.2	15.3	15.0	14.2	13.7
4	14.3	15.0	15.5	15.5	14.9	14.4	14.6	15.1	15.3	15.1	14.5	14.1
2	14.7	15.3	15.6	15.3	14.6	14.2	14.3	14.9	15.3	15.3	14.8	14.4
0	15.0	15.5	15.7	15.3	14.4	13.9	14.1	14.8	15.3	15.4	15.1	14.8

Tabel 3.5.f. Harga (Ra) dinyatakan dalam evaporasi ekivalen (mm/hari)

Lintang	Belahan bumi selatan											
	Jan.	Feb.	Maret	April	Mei	Juni	Juli	Agst.	Sept.	Okt.	Nop.	Des.
50°	17.5	14.7	10.9	7.0	4.2	3.1	3.5	5.5	8.9	12.9	16.5	18.2
48	17.6	14.9	11.2	7.5	4.7	3.5	4.0	6.0	9.3	13.2	16.6	18.2
46	17.7	15.1	11.5	7.9	5.2	4.0	4.4	6.5	9.7	13.4	16.7	18.3
44	17.8	15.3	11.9	8.4	5.7	4.4	4.9	6.9	10.2	13.7	16.7	18.3
42	17.8	15.5	12.2	8.8	6.1	4.9	5.4	7.4	10.6	14.0	16.8	18.3
40	17.9	15.7	12.5	9.2	6.6	5.3	5.9	7.9	11.0	14.2	16.9	18.3
38	17.9	15.8	12.8	9.6	7.1	5.8	6.3	8.3	11.4	14.4	17.0	18.3
36	17.9	16.0	13.2	10.1	7.5	6.3	6.8	8.8	11.7	14.6	17.0	18.2
34	17.8	16.1	13.5	10.5	8.0	6.8	7.2	9.2	12.0	14.9	17.1	18.2
32	17.8	16.2	13.8	10.9	8.5	7.3	7.7	9.6	12.4	15.1	17.2	18.1
30	17.8	16.4	14.0	11.3	8.9	7.8	8.1	10.1	12.7	15.3	17.3	18.1
28	17.7	16.4	14.3	11.6	9.3	8.2	8.6	10.4	13.0	15.4	17.2	17.9
26	17.6	16.4	14.4	12.0	9.7	8.7	9.1	10.9	13.2	15.5	17.2	17.8
24	17.5	16.5	14.6	12.3	10.2	9.1	9.5	11.2	13.4	15.6	17.1	17.7
22	17.4	16.5	14.8	12.6	10.6	9.6	10.0	11.6	13.7	15.7	17.0	17.5
20	17.3	16.5	15.0	13.0	11.0	10.0	10.4	12.0	13.9	15.8	17.0	17.4
18	17.1	16.5	15.1	13.2	11.4	10.4	10.8	12.3	14.1	15.8	16.8	17.1
16	16.9	16.4	15.2	13.5	11.7	10.8	11.2	12.6	14.3	15.8	16.7	16.8
14	16.7	16.4	15.3	13.7	12.1	11.2	11.6	12.9	14.5	15.8	16.5	16.6
12	16.6	16.3	15.4	14.0	12.5	11.6	12.0	13.2	14.7	15.8	16.4	16.5
10	16.4	16.3	15.5	14.2	12.8	12.0	12.4	13.5	14.8	15.9	16.2	16.2
8	16.1	16.1	15.5	14.4	13.1	12.4	12.7	13.7	14.9	15.8	16.0	16.0
6	15.8	16.0	15.6	14.7	13.4	12.8	13.1	14.0	15.0	15.7	15.8	15.7
4	15.5	15.8	15.6	14.9	13.8	13.2	13.4	14.3	15.1	15.6	15.5	15.4
2	15.3	15.7	15.7	15.1	14.1	13.5	13.7	14.5	15.2	15.5	15.3	15.1
0	15.0	15.5	15.7	15.3	14.4	13.9	14.1	14.8	15.3	15.4	15.1	14.8

Tabel 3.5.g. Lamanya penyinaran rata-rata yang mungkin terjadi (N)
untuk bulan dan letak lintang yang berbeda-beda

Garis lintang utara / Garis lintang selatan	Jan. / Juli	Feb. / Agst.	Maret / Sept.	April / Okt.	Mei / Nop.	Juni / Des.	Juli / Jan.	Agst. / Feb.	Sept. / Maret	Okt. / April	Nop. / Mei	Des. / Juni
50°	8.5	10.1	11.8	13.8	15.4	16.3	15.9	14.5	12.7	10.8	9.1	8.1
48	8.8	10.2	11.8	13.6	15.2	16.0	15.6	14.3	12.6	10.9	9.3	8.3
46	9.1	10.4	11.9	13.5	14.9	15.7	15.4	14.2	12.6	10.9	9.5	8.7
44	9.3	10.5	11.9	13.4	14.7	15.4	15.2	14.0	12.6	11.0	9.7	8.9
42	9.4	10.6	11.9	13.4	14.6	15.2	14.9	13.9	12.6	11.1	9.8	9.1
40	9.6	10.7	11.9	13.3	14.4	15.0	14.7	13.7	12.5	11.2	10.0	9.3
35	10.1	11.0	11.9	13.1	14.0	14.5	14.3	13.5	12.4	11.3	10.3	9.8
30	10.4	11.1	12.0	12.9	13.6	14.0	13.9*	13.2	12.4	11.5	10.6	10.2
25	10.7	11.3	12.0	12.7	13.3	13.7	13.5	13.0	12.3	11.6	10.9	10.6
20	11.0	11.5	12.0	12.6	13.1	13.3	13.2	12.8	12.3	11.7	11.2	10.9
15	11.3	11.6	12.0	12.5	12.8	13.0	12.9	12.6	12.2	11.8	11.4	11.2
10	11.6	11.8	12.0	12.3	12.6	12.7	12.6	12.4	12.1	11.8	11.6	11.5
5	11.8	11.9	12.0	12.2	12.3	12.4	12.3	12.3	12.1	12.0	11.9	11.8
0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0

Tabel 3.5.1. Faktor penyesuaian (c) untuk persamaan Penman dengan modifikasi

	RHmax = 30%				RHmax = 60%				RHmax = 90%			
Rs mm/hari	3	6	9	12	3	6	9	12	3	6	9	12
Usiang m/det	U siang / U malam = 4.0											
0	0.86	0.90	1.00	1.00	0.96	0.98	1.05	1.05	1.02	1.06	1.10	1.10
3	0.79	0.84	0.92	0.97	0.92	1.00	1.11	1.19	0.99	1.10	1.27	1.32
6	0.68	0.77	0.87	0.93	0.85	0.96	1.11	1.19	0.94	1.10	1.26	1.33
9	0.55	0.65	0.78	0.90	0.76	0.88	1.02	1.14	0.88	1.01	1.16	1.27
	U siang / U malam = 3.0											
0	0.86	0.90	1.00	1.00	0.96	0.98	1.05	1.05	1.02	1.06	1.10	1.10
3	0.76	0.81	0.88	0.94	0.87	0.96	1.06	1.12	0.94	1.04	1.18	1.22
6	0.61	0.68	0.81	0.88	0.77	0.88	1.02	1.10	0.86	1.01	1.15	1.22
9	0.46	0.56	0.72	0.82	0.67	0.79	0.88	1.05	0.78	0.92	1.06	1.18
	U siang / U malam = 2.0											
0	0.86	0.90	1.00	1.00	0.96	0.98	1.05	1.05	1.02	1.06	1.10	1.10
3	0.69	0.76	0.85	0.92	0.83	0.91	0.99*	1.05*	0.89	0.98	1.10*	1.14*
6	0.53	0.61	0.74	0.84	0.70	0.80	0.94	1.02	0.79	0.92	1.05	1.12
9	0.37	0.48	0.65	0.76	0.59	0.70	0.84	0.95	0.71	0.81	0.96	1.06
	U siang / U malam = 1.0											
0	0.86	0.90	1.00	1.00	0.96	0.98	1.05	1.05	1.02	1.06	1.10	1.10
3	0.64	0.71	0.82	0.89	0.78	0.86	0.94*	0.99*	0.85	0.92	1.01*	1.05*
6	0.43	0.53	0.68	0.79	0.62	0.70	0.84	0.93	0.72	0.82	0.95	1.00
9	0.27	0.41	0.59	0.70	0.50	0.60	0.75	0.87	0.62	0.72	0.87	0.96

Tabel 3.5.h. Harga (1 - α) (0,25 + 0,50 n/N) untuk α = 0,25

n / N	0.0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.0
(1-α)(0.25 + 0.50 n/N)	0.19	.21	.22	.24	.26	.28	.30	.32	.34	.36	.37	.39	.41	.43	.45	.47	.49*	.51	.52	.54	.56

Tabel 3.5.i. Harga f (T) ——→ Rnl = f (T) . f (ed) . f (n/N)

T^oC	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36
$f(T) = \sigma T k^4$	11.0	11.4	11.7	12.0	12.4	12.7	13.1	13.5	13.8	14.2	14.6	15.0	15.4	15.9	16.3*	16.7	17.2	17.7	18.1

Tabel 3.5.j. Harga f (ed) ——→ Rnl = f (T) . f (ed) . f (n/N)

ed mbar	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
$f(ed) = 0.34 - 0.044 \sqrt{ed}$	0.23	.22	.20	.19	.18	.16	.15	.14	.13*	.12	.12	.11	.10	.09	.08	.08	.07	.06

Tabel 3.5.k. Harga f (n/N) ——→ Rnl = f (T) . f (ed) . f (n/N)

n / N	0	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.0
f(n/N) = 0.1 + 0.9 n/N	0.10	.15	.19	.24	.28	.33	.37	.42	.46	.51	.55	.60	.64	.69	.73	.78	.82*	.87	.91	.96	1.0