

DAFTAR PUSTAKA

- Adam, A. R., Saidah, H., & Hanifah, L. (2019). Analisis Perbandingan Penggunaan Metode Aritmatika, Poligon Thiessen dan Isohyet Dalam Perhitungan Curah Hujan Rerata Daerah (Studi Lokasi DAS Jangkok). *Artikel Ilmiah, Fakultas Teknik, Univrsitas Mataram*, 1–12.
- Agus, F., & Subiksa, I. M. (2008). Lahan Gambut: Potensi untuk Pertanian dan Aspek Lingkungan. *Balai Penelitian Tanah, Badan Penelitian dan Pengembangan Pertanian*. Bogor, Indonesia. <http://www.icraf.cgiar.org/sea>
- Boelter, DH (1969). Sifat fisik gambut yang berhubungan dengan tingkat dekomposisi. *Jurnal Masyarakat Ilmu Tanah Amerika*, 33(4), 606-609.
- Direktorat Jenderal Planologi Kehutanan dan Tata Lingkungan (PKTL). (2022). *Data Dan Informasi Ditjen Planlogi Kehuanan Dan Data Lingkungan*.
- Edi, H., Barus, B., & Baskoro, D. (2019). Pemetaan Subsiden di Kesatuan Hidrologi Gambut Sungai Jangkok – Sungai Liong Pulau Bengkalis: *Jurnal Ilmu Tanah dan Lingkungan*, 19, 13. <https://doi.org/10.29244/jitl.19.1.13-18>
- Fitriansyah, F., Widuri, E. S., & Ulmi, E. I. (2020). Analisa Kebutuhan Air Irigasi Untuk Tanaman Padi Dan Palawija Pada Daerah Irigasi Rawa (DIR) Danda Besar Kabupaten Barito Kuala. *Media Ilmiah Teknik Sipil*, 8(2), 79–87. <https://doi.org/10.33084/mits.v8i2.1405>
- Gaol, R. Y. L. (2019). file:///C:/Users/USER/Downloads/418-902-1-PB-Analisis Data Curah Hujan yang Hilang.pdf;file:///C:/Users/USER/Downloads/418-902-1-PB-Analisis Data Curah Hujan yang Hilang.pdf. *Repository Universitas HKBP Nommensen*, 35. [https://repository.uhn.ac.id/bitstream/handle/123456789/3338/Ramal Yohannes Lumban Gaol.pdf?isAllowed=y&sequence=1](https://repository.uhn.ac.id/bitstream/handle/123456789/3338/Ramal%20Yohannes%20Lumban%20Gaol.pdf?isAllowed=y&sequence=1)
- Harahap, I. Y., & Witjaksana Darmosarkoro. (1999). Pendugaan Kebutuhan Air untuk Pertumbuhan Kelapa Sawit di Lapang dan Aplikasinya dalam Pengembangan Sistem Irigasi. *Jpks*, 7(2), 87–104.
- Hasibuan, S., Tntawi, A. R., & Saleh, K. (2022). Efisiensi Penggunaan Faktor-Faktor Produksi Pada Usahatani Kelapa Sawit Rakyat (Studi Kasus: Di Desa Hualombang, Kecamatan Lubuk Barumon, Kabupaten Padang Lawas). *Jurnal Agriuma*, 4(2), 107–115. <https://doi.org/10.31289/agri.v4i2.9834>
- Hirano, T., Ohkubo, S., Itoh, M., Tsuzuki, H., Sakabe, A., Takahashi, H., Kusin, K., & Osaki, M. (2024). Large variation in carbon dioxide emissions from tropical peat swamp forests due to disturbances. *Communications Earth and Environment*, 5(1), 1–9. <https://doi.org/10.1038/s43247-024-01387-7>
- Kartika, D., Nomeritae, N., & Kamiana, I. M. (2023). Evaluasi Data Curah Hujan Satelit TRMM Dan GPM Terhadap Data Curah Hujan Observasi Di Kalimantan Tengah. *Media Ilmiah Teknik Sipil*, 11(1), 28–39. <https://doi.org/10.33084/mits.v11i1.4033>
- Khusrizal. (2020). Lahan Budidaya Tembakau Deli, Tebu, Kelapa Sawit

Karakteristik dan Kesesuaian. *Sefa Bumi Persada*, 1–124.

- Lufi, S., Ery, S., & Rispiningtati, R. (2020). Hydrological Analysis of TRMM (Tropical Rainfall Measuring Mission) Data in Lesti Sub Watershed. *Civil and Environmental Science*, 003(01), 018–030. <https://doi.org/10.21776/ub.civense.2020.00301.3>
- Maigiska, N., Nurhayati, & Umar. (2018). Analisis Kebutuhan Air Tanaman untuk Kebun Campuran pada Daerah Tangkapan Air Pari Pati di Daerah Rawa Pungur Besar. *Jurnal Teknik*, 5(3), 1–7.
- Mauladi, Gian;Selfana Yuli Kusumaningsih, K. A. P. (2024). Kabupaten Katingan Dalam Angka Katingan Regency in Figures 2024. *Katingan: Badapn Pusat Statiditik Kabupaten Katingan*, 16, 384.
- Miftahuddin, Sampurno, J., & Ihwan, A. (2016). Pendugaan Sebaran Akar Kelapa Sawit Pada Lahan Gambut Dengan Menggunakan Metode Geolistrik Resitivitas. *Jurnal Prisma Fisika*, IV(3), 114–120. <https://jurnal.untan.ac.id/index.php/jpfu>
- Noor, M., Masganti, & Agus, F. (2015). Pembentukan dan karakteristik gambut tropisa Indonesia. Dalam F. Agus, M. Anda, A. Jamil, & Masganti (Eds.), *Lahan gambut Indonesia: Pembentukan, karakteristik, dan potensi mendukung ketahanan pangan (edisi revisi)*. Balitbangtan Pers.
- Mopangga, S. (2020). Analisis Neraca Air Daerah Aliran Sungai Bolango. *RADIAL : Jurnal Peradaban Sains, Rekayasa dan Teknologi*, 7(2), 162–171. <https://doi.org/10.37971/radial.v7i2.191>
- Nuramalia, R., & Lasminto, U. (2022). Keandalan Data Curah Hujan Satelit TRMM (Tropical Rainfall Measuring Mission) Terhadap Data Curah Hujan Stasiun Bumi pada Beberapa Sub DAS di DAS Brantas. *Jurnal Aplikasi Teknik Sipil*, 20(2), 207. <https://doi.org/10.12962/j2579-891x.v20i2.12015>
- Prativi, A. (2018). *Percepatan Proses Dekomposisi Tanah Gambut Berserat dengan Menggunakan Bakteri Dekomposer Aerob Endogen Tanah Gambut*. 1–174. https://repository.its.ac.id/50776/1/3116201001-Master_Thesis.pdf
- Prawaka, F., Zakaria, A., & Tugiono, S. (2016). Analisis Data Curah Hujan yang Hilang Dengan Menggunakan Metode Normal Ratio, Inversed Square Distance, dan Rata-Rata Aljabar (Studi Kasus Curah Hujan Beberapa Stasiun Hujan Daerah Bandar Lampung). *Jurnal Rekayasa Sipil dan Desain*, 4(3), 2303–2314.
- Prijono, S. (2007). *Irigasi Dan Drainase*. 26file:///C:/Users/USER/Downloads/neraca air.pdf <http://sugeng.lecture.ub.ac.id/files/2012/10/MODUL-3.pd>
- Putra, I. S., & Lasmana, Y. (2019). Analisa Perhitungan Muka Air Rata-Rata Di Lahan Gambut Dengan Tanggul Keliling Dalam Rangka Mengurangi Kebakaran. *Jurnal Teknik Hidraulik*, 10(1), 43–54.
- Rahmanto, E., Rahmabudhi, S., Kustia, T., Kampar, S. K., Unggas, J., Tiga, K. S.,

- & Raya, K. B. (2022). Analisis Spasial Penentuan Tipe Iklim Menurut Klasifikasi Schmidt – Ferguson Menggunakan Metode Thiessen – Polygon di Provinsi Riau Spatial Analysis of Climate Type Determination by Schmidt – Ferguson Classification Using the Thiessen – Polygon Method in. *Buletin GAW (BGB)*, 3(1), 35–42.
- Riady, M. I. (2015). BAB II. *Digital Repositori Unila*, 1–20. [http://digilib.unila.ac.id/7014/106/BAB II.pdf](http://digilib.unila.ac.id/7014/106/BAB%20II.pdf)
- Ritung, Markus Anda, Erna Suryani, Sukarman, Muhammad Hikmat, Edi Yatno, Anny Mulyani, Rudi Eko Subandiono, Suratman, Husnain, S. (2021). Revisiting tropical peatlands in Indonesia: Semi-detailed mapping, extent and depth distribution assessment,. *Geoderma*, 402.
- Sabiham, S., & Sukarman. (2012). Pengelolaan Lahan Gambut untuk Pengembangan Kelapa Sawit di Indonesia. *Jurnal Sumberdaya Lahan*, 6(2), 55-66
- Salsabila Dina. (2024). No Kabupaten Pulang Pisau Daam Angka Pulang Pisau Regency in Figures 2024. *Pulang Pisau: BPS Kabupaten Pulang Pisau*, 16, 383.
- Sari, I. K., Limantara, Montarcih, L., & PriyantoroDwi. (2012). Analisa ketersediaan dan kebutuhan air pada das sampean. *Jurnal Jurusan Pengairan*, 1–14.
- Sudrajat, A. S. E., & Subekti, S. (2019). Pengelolaan Ekosistem Gambut Sebagai Upaya Mitigasi Perubahan Iklim Di Provinsi Kalimantan Selatan. *Jurnal Planologi*, 16(2), 219. <https://doi.org/10.30659/jpsa.v16i2.4459>
- Supari, S., Tangang, F., Juneng, L., & Aldrian, E. (2016). Observed changes in extreme temperature and precipitation over Indonesia. *International Journal of Climatology*, 37. <https://doi.org/10.1002/joc.4829>
- Surahman, B. (2019). Optimasi Saluran Sekunder Bendungan Sampen Baru Kabupaten Bondowoso Menggunakan Program Dinamik. *Digital Repositori Universitas Jember*, 1–92.
- Taruna, Y., Salampak, S., Yulianti, N., Yupi, H. M., Sustiyah, S., & Indrajaya, F. (2021). Pengaruh Penyiraman Air Tanah Terhadap Perubahan Sifat Kimia Tanah dan Air Gambut di Kalimantan Tengah. *Soilrens*, 19(1), 58. <https://doi.org/10.24198/soilrens.v19i1.35092>
- Tiara, A., Jakaria, & Syafri. (2023). Analisis Determinan Ekspor Dan Daya Saing Produk Minyak Kelapa Sawit Indonesia Di Pasar Internasional. *Jurnal Ekonomi Trisakti*, 3(1), 999–1014. <https://doi.org/10.25105/jet.v3i1.15583>
- Tukidi. (2010). Karakter Curah Hujan Di Indonesia. *Jurnal Geografi*, 7(2), 136–

145. <http://journal.unnes.ac.id/nju/index.php/JG/article/view/84>

- US Army Corps of Engineers. (1998). HEC-HMS Technical Reference Manual Introduction. *Computer Manual*, 1–288.
- Utami, R. W., Kartini, K., & Akbar, A. A. (2021). Pengaruh Keragaman Penggunaan Lahan di Ekosistem Gambut sub DAS Kapuas Kabupaten Kubu Raya. *Jurnal Ilmu Lingkungan*, 19(2), 409–421. <https://doi.org/10.14710/jil.19.2.409-421>
- Wawan, W., Amri, A. I., & Akbar, A. N. (2019). Sifat Fisika Tanah dan Produktivitas Kelapa Sawit (*Elaeis Guineensis* Jacq.) Di Lahan Gambut Pada Tinggi Muka Air Tanah Yang Berbeda. *Jurnal Agroteknologi*, 10(1), 15. <https://doi.org/10.24014/ja.v10i1.5767>
- Winarna, W., Pradiko, I., Syarovy, M., & Hidayat, F. (2016). Perbaikan Sifat-Sifat dan Pencegahan Hidrofobisitas Tanah Baja Gambut di Perkebunan Kelapa Sawit Melalui Aplikasi Terak. *Jurnal Penelitian Kelapa Sawit*, 24(1), 39–46.

LAMPIRAN

A. Menu Climate untuk menentukan laju Evapotranspirasi potensial

CROPWAT - Session: untitled

File Edit Calculations Charts Settings Window Language Help

New Open Save Close Print Chart Options

Climate/ETo

Rain

Crop

Soil

CWR

Schedule

Crop Pattern

Scheme

Monthly ETo Penman-Monteith - C:\ProgramData\CROPWAT\data\climate\ETO SKRIPS.PEM

Country Indonesia Station Tjilik Riwut

Altitude 27 m. Latitude 2.22 °S Longitude 113.90 °E

Month	Avg Temp °C	Humidity %	Wind m/s	Sun hours	Rad MJ/m ² /day	ETo mm/month
January	27.0	83	2.0	4.0	15.4	107.98
February	27.0	83	2.0	3.8	15.4	98.21
March	27.1	83	2.0	4.2	16.1	111.91
April	27.5	80	2.0	4.8	16.4	112.96
May	27.8	83	2.0	5.4	16.2	112.04
June	27.5	82	2.0	5.0	15.0	102.39
July	27.4	81	2.0	5.6	16.1	112.06
August	27.1	76	2.0	5.4	16.7	121.21
September	27.6	77	2.0	4.2	15.8	114.22
October	28.2	71	2.0	4.0	15.7	127.56
November	27.6	82	2.0	4.5	16.2	111.49
December	27.1	82	2.0	4.5	15.9	112.02
Average	27.4	80	2.0	4.6	15.9	1344.06

E To file: eto skrips.pem

Rain file

Crop file

Soil file

Planting dat

B. Menu Rain untuk menentukan curah hujan efektif

CROPWAT - Session: untitled - [Monthly rain - C:\ProgramData\CROPWAT\data\rain\CH andalan 80%.CRM]

File Edit Calculations Charts Settings Window Language Help

New Open Save Close Print Chart Options

Station Tjilik Riwut

Eff. rain method **USDA S.C. Method**

	Rain mm	Eff rain mm
January	201.1	136.4
February	202.5	136.9
March	292.7	154.3
April	279.1	152.9
May	183.4	129.6
June	134.3	105.4
July	61.6	55.5
August	71.5	63.3
September	61.3	55.3
October	151.3	114.7
November	279.1	152.9
December	246.3	149.2
Total	2164.2	1406.4

Climate/ETo

Rain

Crop

Soil

CWR

C. Menu Crop untuk menginput data tanaman.

CROPWAT - Session: untitled - [Dry crop - C:\ProgramData\CROPWAT\data\crops\palm oil 2.CRO]

File Edit Calculations Charts Settings Window Language Help

New Open Save Close Print Chart Options

Crop Name Planting date Harvest

The screenshot shows the 'Crop' menu in CROPWAT. It features a graph with two lines: a blue line for Kc values and a red line for rooting depth (m). The x-axis represents time, divided into stages: initial (1 day), development (2 days), mid-season (360 days), late season (2 days), and total (365 days). The y-axis represents Kc values and rooting depth. The Kc values start at 0.82, peak at 0.82 during the mid-season, and end at 0.82. The rooting depth starts at 0.80 m and decreases to 0.80 m during the mid-season. Below the graph, there are input fields for various crop parameters:

Parameter	Initial	Development	Mid-season	Late season	Total
Kc Values	0.82		0.82		0.82
Stage (days)	1	2	360	2	365
Rooting depth (m)	0.80		0.80		
Critical depletion (fraction)	0.50		0.50	0.50	
Yield response f.	0.90	0.90	0.90	0.90	0.90
Cropheight (m)				(optional)	

D. Menu soil untuk menginput data tanah.

CROPWAT - Session: untitled - [Soil - untitled]

File Edit Calculations Charts Settings Window Language Help

New Open Save Close Print Chart Options

Soil name

General soil data

Total available soil moisture (FC - WP)	<input type="text" value="300.0"/>	mm/meter
Maximum rain infiltration rate	<input type="text" value="40"/>	mm/day
Maximum rooting depth	<input type="text" value="174"/>	centimeters
Initial soil moisture depletion (as % TAM)	<input type="text" value="20"/>	%
Initial available soil moisture	<input type="text" value="240.0"/>	mm/meter

D. Hasil Perhitungan Cropwat

Month	Decade	Stage	Kc	ETc	ETc	Eff rain	Irr. Req.	Month	Decade	Stage	Kc	ETc	ETc	Eff rain	Irr. Req.
			coeff	mm/day	mm/dec	mm/dec	mm/dec				mm/dec	coeff	mm/day	mm/dec	mm/dec
Jan		1 Mid	0.82	2.89	28.9	44.3	0	Jan		1 Mid	0.83	2.93	29.3	44.3	0
Jan		2 Mid	0.82	2.86	28.6	42.3	0	Jan		2 Mid	0.83	2.89	28.9	42.3	0
Jan		3 Mid	0.82	2.86	31.5	43.4	0	Jan		3 Mid	0.83	2.9	31.9	43.4	0
Feb		1 Mid	0.82	2.87	28.7	44.4	0	Feb		1 Mid	0.83	2.9	29	44.4	0
Feb		2 Mid	0.82	2.88	28.8	45	0	Feb		2 Mid	0.83	2.91	29.1	45	0
Feb		3 Mid	0.82	2.9	23.2	47.1	0	Feb		3 Mid	0.83	2.94	23.5	47.1	0
Mar		1 Mid	0.82	2.93	29.3	50.2	0	Mar		1 Mid	0.83	2.97	29.7	50.2	0
Mar		2 Mid	0.82	2.96	29.6	52.5	0	Mar		2 Mid	0.83	3	30	52.5	0
Mar		3 Mid	0.82	3	33	51	0	Mar		3 Mid	0.83	3.04	33.4	51	0
Apr		1 Mid	0.82	3.05	30.5	49.2	0	Apr		1 Mid	0.83	3.08	30.8	49.2	0
Apr		2 Mid	0.82	3.09	30.9	48.2	0	Apr		2 Mid	0.83	3.13	31.3	48.2	0
Apr		3 Mid	0.82	3.05	30.5	46.4	0	Apr		3 Mid	0.83	3.08	30.8	46.4	0
May		1 Mid	0.82	3	30	44.8	0	May		1 Mid	0.83	3.04	30.4	44.8	0
May		2 Mid	0.82	2.96	29.6	43.2	0	May		2 Mid	0.83	3	30	43.2	0
May		3 Mid	0.82	2.91	32	40.4	0	May		3 Mid	0.83	2.94	32.4	40.4	0
Jun		1 Mid	0.82	2.85	28.5	38.3	0	Jun		1 Mid	0.83	2.89	28.9	38.3	0
Jun		2 Mid	0.82	2.8	28	36	0	Jun		2 Mid	0.83	2.83	28.3	36	0
Jun		3 Mid	0.82	2.85	28.5	29.8	0	Jun		3 Mid	0.83	2.89	28.9	29.8	0
Jul		1 Mid	0.82	2.91	29.1	21.3	7.7	Jul		1 Mid	0.83	2.94	29.4	21.3	8.1
Jul		2 Mid	0.82	2.96	29.6	14.6	15	Jul		2 Mid	0.83	3	30	14.6	15.4
Jul		3 Mid	0.82	3.04	33.5	16.7	16.8	Jul		3 Mid	0.83	3.08	33.9	16.7	17.2
Aug		1 Mid	0.82	3.13	31.3	21.1	10.1	Aug		1 Mid	0.83	3.16	31.6	21.1	10.5
Aug		2 Mid	0.82	3.21	32.1	23	9.1	Aug		2 Mid	0.83	3.25	32.5	23	9.5
Aug		3 Mid	0.82	3.18	35	18.6	16.3	Aug		3 Mid	0.83	3.22	35.4	18.6	16.7
Sep		1 Mid	0.82	3.15	31.5	11.6	19.9	Sep		1 Mid	0.83	3.19	31.9	11.6	20.3
Sep		2 Mid	0.82	3.12	31.2	6.9	24.3	Sep		2 Mid	0.83	3.16	31.6	6.9	24.7
Sep		3 Mid	0.82	3.21	32.1	11.8	20.3	Sep		3 Mid	0.83	3.25	32.5	11.8	20.7
Oct		1 Mid	0.82	3.29	32.9	16.2	16.7	Oct		1 Mid	0.83	3.33	33.3	16.2	17.1
Oct		2 Mid	0.82	3.37	33.7	19.3	14.4	Oct		2 Mid	0.83	3.42	34.2	19.3	14.9
Oct		3 Mid	0.82	3.27	35.9	29.2	6.7	Oct		3 Mid	0.83	3.31	36.4	29.2	7.1
Nov		1 Mid	0.82	3.16	31.6	42.6	0	Nov		1 Mid	0.83	3.19	31.9	42.6	0
Nov		2 Mid	0.82	3.05	30.5	53.1	0	Nov		2 Mid	0.83	3.08	30.8	53.1	0
Nov		3 Mid	0.82	3.02	30.2	51.4	0	Nov		3 Mid	0.83	3.06	30.6	51.4	0
Dec		1 Mid	0.82	2.99	29.9	48.8	0	Dec		1 Mid	0.83	3.03	30.3	48.8	0
Dec		2 Mid	0.82	2.96	29.6	48.7	0	Dec		2 Mid	0.83	3	30	48.7	0
Dec		3 Late	0.82	2.93	32.2	46.9	0	Dec		3 Late	0.83	2.96	32.6	46.9	0

Month	Decade	Stage	Kc	Etc	Etc	Eff rain	Irr. Req.
			coeff	mm/day	mm/dec	mm/dec	mm/dec
Jan		1 Mid	0.86	3.03	30.3	44.3	0
Jan		2 Mid	0.86	3	30	42.3	0
Jan		3 Mid	0.86	3	33	43.4	0
Feb		1 Mid	0.86	3.01	30.1	44.4	0
Feb		2 Mid	0.86	3.02	30.2	45	0
Feb		3 Mid	0.86	3.05	24.4	47.1	0
Mar		1 Mid	0.86	3.08	30.8	50.2	0
Mar		2 Mid	0.86	3.1	31	52.5	0
Mar		3 Mid	0.86	3.15	34.6	51	0
Apr		1 Mid	0.86	3.19	31.9	49.2	0
Apr		2 Mid	0.86	3.24	32.4	48.2	0
Apr		3 Mid	0.86	3.19	31.9	46.4	0
May		1 Mid	0.86	3.15	31.5	44.8	0
May		2 Mid	0.86	3.11	31.1	43.2	0
May		3 Mid	0.86	3.05	33.6	40.4	0
Jun		1 Mid	0.86	2.99	29.9	38.3	0
Jun		2 Mid	0.86	2.94	29.4	36	0
Jun		3 Mid	0.86	2.99	29.9	29.8	0.1
Jul		1 Mid	0.86	3.05	30.5	21.3	9.2
Jul		2 Mid	0.86	3.11	31.1	14.6	16.4
Jul		3 Mid	0.86	3.19	35.1	16.7	18.4
Aug		1 Mid	0.86	3.28	32.8	21.1	11.6
Aug		2 Mid	0.86	3.36	33.6	23	10.7
Aug		3 Mid	0.86	3.33	36.7	18.6	18
Sep		1 Mid	0.86	3.3	33	11.6	21.5
Sep		2 Mid	0.86	3.27	32.7	6.9	25.9
Sep		3 Mid	0.86	3.36	33.6	11.8	21.9
Oct		1 Mid	0.86	3.45	34.5	16.2	18.3
Oct		2 Mid	0.86	3.54	35.4	19.3	16.1
Oct		3 Mid	0.86	3.42	37.7	29.2	8.5
Nov		1 Mid	0.86	3.31	33.1	42.6	0
Nov		2 Mid	0.86	3.2	32	53.1	0
Nov		3 Mid	0.86	3.17	31.7	51.4	0
Dec		1 Mid	0.86	3.14	31.4	48.8	0
Dec		2 Mid	0.86	3.11	31.1	48.7	0
Dec		3 Late	0.86	3.07	33.8	46.9	0

Month	Decade	Stage	Kc	Etc	Etc	Eff rain	Irr. Req.
			coeff	mm/day	mm/dec	mm/dec	mm/dec
Jan		1 Mid	0.92	3.24	32.4	44.3	0
Jan		2 Mid	0.92	3.2	32	42.3	0
Jan		3 Mid	0.92	3.21	35.3	43.4	0
Feb		1 Mid	0.92	3.22	32.2	44.4	0
Feb		2 Mid	0.92	3.23	32.3	45	0
Feb		3 Mid	0.92	3.26	26.1	47.1	0
Mar		1 Mid	0.92	3.29	32.9	50.2	0
Mar		2 Mid	0.92	3.32	33.2	52.5	0
Mar		3 Mid	0.92	3.37	37.1	51	0
Apr		1 Mid	0.92	3.42	34.2	49.2	0
Apr		2 Mid	0.92	3.46	34.6	48.2	0
Apr		3 Mid	0.92	3.42	34.2	46.4	0
May		1 Mid	0.92	3.37	33.7	44.8	0
May		2 Mid	0.92	3.32	33.2	43.2	0
May		3 Mid	0.92	3.26	35.9	40.4	0
Jun		1 Mid	0.92	3.2	32	38.3	0
Jun		2 Mid	0.92	3.14	31.4	36	0
Jun		3 Mid	0.92	3.2	32	29.8	2.2
Jul		1 Mid	0.92	3.26	32.6	21.3	11.3
Jul		2 Mid	0.92	3.33	33.3	14.6	18.6
Jul		3 Mid	0.92	3.42	37.6	16.7	20.8
Aug		1 Mid	0.92	3.51	35.1	21.1	13.9
Aug		2 Mid	0.92	3.6	36	23	13
Aug		3 Mid	0.92	3.57	39.2	18.6	20.6
Sep		1 Mid	0.92	3.53	35.3	11.6	23.8
Sep		2 Mid	0.92	3.5	35	6.9	28.1
Sep		3 Mid	0.92	3.6	36	11.8	24.2
Oct		1 Mid	0.92	3.69	36.9	16.2	20.7
Oct		2 Mid	0.92	3.79	37.9	19.3	18.6
Oct		3 Mid	0.92	3.66	40.3	29.2	11.1
Nov		1 Mid	0.92	3.54	35.4	42.6	0
Nov		2 Mid	0.92	3.42	34.2	53.1	0
Nov		3 Mid	0.92	3.39	33.9	51.4	0
Dec		1 Mid	0.92	3.36	33.6	48.8	0
Dec		2 Mid	0.92	3.32	33.2	48.7	0
Dec		3 Late	0.92	3.28	36.1	46.9	0

Month	Decade	Stage	Kc	Etc	Etc	Eff rain	Irr. Req.
			coeff	mm/day	mm/dec	mm/dec	mm/dec
Jan		1 Mid	0.93	3.28	32.8	44.3	0
Jan		2 Mid	0.93	3.24	32.4	42.3	0
Jan		3 Mid	0.93	3.25	35.7	43.4	0
Feb		1 Mid	0.93	3.25	32.5	44.4	0
Feb		2 Mid	0.93	3.26	32.6	45	0
Feb		3 Mid	0.93	3.29	26.3	47.1	0
Mar		1 Mid	0.93	3.33	33.3	50.2	0
Mar		2 Mid	0.93	3.36	33.6	52.5	0
Mar		3 Mid	0.93	3.41	37.5	51	0
Apr		1 Mid	0.93	3.45	34.5	49.2	0
Apr		2 Mid	0.93	3.5	35	48.2	0
Apr		3 Mid	0.93	3.45	34.5	46.4	0
May		1 Mid	0.93	3.41	34.1	44.8	0
May		2 Mid	0.93	3.36	33.6	43.2	0
May		3 Mid	0.93	3.3	36.3	40.4	0
Jun		1 Mid	0.93	3.24	32.4	38.3	0
Jun		2 Mid	0.93	3.17	31.7	36	0
Jun		3 Mid	0.93	3.24	32.4	29.8	2.5
Jul		1 Mid	0.93	3.3	33	21.3	11.7
Jul		2 Mid	0.93	3.36	33.6	14.6	19
Jul		3 Mid	0.93	3.45	38	16.7	21.2
Aug		1 Mid	0.93	3.54	35.4	21.1	14.3
Aug		2 Mid	0.93	3.64	36.4	23	13.4
Aug		3 Mid	0.93	3.6	39.6	18.6	21
Sep		1 Mid	0.93	3.57	35.7	11.6	24.2
Sep		2 Mid	0.93	3.54	35.4	6.9	28.5
Sep		3 Mid	0.93	3.64	36.4	11.8	24.6
Oct		1 Mid	0.93	3.73	37.3	16.2	21.1
Oct		2 Mid	0.93	3.83	38.3	19.3	19
Oct		3 Mid	0.93	3.7	40.7	29.2	11.5
Nov		1 Mid	0.93	3.58	35.8	42.6	0
Nov		2 Mid	0.93	3.46	34.6	53.1	0
Nov		3 Mid	0.93	3.42	34.2	51.4	0
Dec		1 Mid	0.93	3.39	33.9	48.8	0
Dec		2 Mid	0.93	3.36	33.6	48.7	0
Dec		3 Late	0.93	3.32	36.5	46.9	0