

PERHITUNGAN EVAPOTRANSPIRASI POTENSIAL DENGAN METODE PENMAN MODIFIKASI

Contoh lokasi di Air Molek pada 00°41" LS

$Eto = c [W.Rn + (1 - W)f(U)(ea - ed)]$

No.	ITEM	JAN	FEB	MAR	APR	MEI	JUN	JUL	AGT	SEP	OKY	NOP	DES	Keterangan
1	Temp. rerata (T)	25,400	26,000	26,100	26,220	26,700	26,600	26,100	26,200	26,000	26,100	26,100	25,600	data
2	ea	32,400	33,600	33,800	34,060	35,070	34,860	33,810	34,020	33,600	33,810	33,810	32,840	tabel 1
3	RH (%)	84,200	82,800	82,800	82,850	83,700	81,200	81,800	81,700	83,800	83,800	82,500	84,800	data
4	ed = ea x RH, mbar	27,281	27,821	27,986	28,219	29,354	28,306	27,657	27,794	28,157	28,333	27,893	27,848	2 x 3
5	ea - ed	5,119	5,779	5,814	5,841	5,716	6,554	6,153	6,226	5,443	5,477	5,917	4,992	2 - 4
6	U2 (km/hari)	13,960	13,000	13,110	13,350	13,040	13,300	13,060	13,410	12,430	12,300	13,960	12,960	data
7	f(U) = 0.27 (1 + U/100)	0,308	0,305	0,305	0,306	0,305	0,306	0,305	0,306	0,304	0,303	0,308	0,305	
8	1 - W	0,256	0,250	0,249	0,248	0,243	0,244	0,249	0,248	0,250	0,249	0,246	0,264	tabel 3
9	AT	0,404	0,441	0,442	0,443	0,424	0,489	0,467	0,472	0,414	0,413	0,448	0,402	8 x 7 x 5
10	RA	15,100	15,570	15,700	15,230	14,300	13,760	13,960	14,700	15,270	15,430	15,170	14,900	tabel 5
11	n/N %	40,500	57,300	49,500	45,800	48,300	53,000	47,900	60,000	45,300	46,300	60,500	34,000	data
12	(0,25 + 0,5 n/N)	0,453	0,537	0,498	0,479	0,492	0,515	0,490	0,550	0,477	0,482	0,553	0,420	-
13	Rs	6,833	8,353	7,811	7,295	7,028	7,086	6,833	8,085	7,276	7,430	8,381	6,258	12 x 10
14	(1 - α)	0,750	0,750	0,750	0,750	0,750	0,750	0,750	0,750	0,750	0,750	0,750	0,750	α = 0.25
15	Rns = (1 - α) Rs	5,125	6,265	5,858	5,471	5,271	5,315	5,125	6,064	5,457	5,572	6,286	4,694	14 x 13
16	f(T)	15,750	15,900	15,920	15,940	16,040	16,020	15,920	15,940	15,900	15,920	15,920	15,750	tabel
17	f(ed) = 0.34 - 0.044 Ved	0,110	0,108	0,107	0,106	0,102	0,106	0,109	0,108	0,107	0,106	0,108	0,108	tabel
18	f(n/N) = 0,1 + 0,9 n/N	0,465	0,616	0,546	0,512	0,535	0,577	0,531	0,640	0,508	0,517	0,645	0,406	
19	Rn1 = f(T).f(ed).f(n/N)	0,806	1,056	0,931	0,868	0,871	0,979	0,918	1,102	0,860	0,870	1,104	0,689	
20	Rn = Rns - Rn1	4,318	5,208	4,927	4,604	4,400	4,336	4,207	4,962	4,597	4,702	5,182	4,004	15 - 19
21	W	0,744	0,750	0,751	0,752	0,757	0,756	0,751	0,752	0,750	0,751	0,754	0,736	tabel
22	WxRn + AT	3,617	4,347	4,142	3,905	3,754	3,767	3,627	4,204	3,862	3,944	4,355	3,349	21 x 20 x 9
23	c	1,071	1,157	1,164	1,157	1,154	1,155	1,151	1,168	1,157	1,159	1,172	1,143	tabel
24	Eto (mm/hari)	3,873	5,030	4,821	4,518	4,333	4,351	4,174	4,910	4,468	4,572	5,105	3,828	23 x 22
25	Ep (mm/bln)	120,07	140,83	149,44	135,55	134,31	130,54	129,40	152,20	134,04	141,72	153,14	118,66	24 x jmlh hr

kelembaban relatif

n lamanya penyinaran matahari aktual, N lamanya penyinaran matahari teoritis