

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

REMANSO (BRAZIL)

Altitude: 401 m.

Latitude: 9°38'S Longitude: 42°6'W

Temperature observation period.: 1961-1990 (30)

Rainfall observation period....: 1961-1990 (30)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	26.60	32.20	22.10	38.40	18.20	104.0	147.21
Feb.	26.80	32.20	22.20	38.60	18.40	97.0	133.77
Mar.	26.50	31.70	22.10	38.80	15.60	153.0	140.08
Apr.	26.40	31.70	22.00	37.80	13.50	93.0	130.24
May.	25.80	31.50	21.10	38.80	16.50	13.0	122.08
Jun.	25.00	30.80	20.10	36.00	10.40	11.0	103.31
Jul.	24.80	30.70	19.30	36.40	13.50	0.0	104.47
Aug.	25.60	31.70	20.20	38.00	14.30	1.0	119.80
Sep.	26.90	33.20	21.50	38.60	14.30	2.0	138.70
Oct.	28.00	34.00	22.90	41.00	16.50	27.0	156.36
Nov.	27.50	33.10	22.90	40.40	18.60	80.0	150.68
Dec.	26.90	32.50	22.20	39.80	18.20	114.0	152.57
Year	26.40	32.11	21.55	38.55	15.67	695	1599.3

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	764
Compensated thermicity index.....(Itc):	764
Simple continentality index.....(Ic):	3.2
Diurnality index.....(Id):	11.7
Annual ombrothermic index.....(Io):	2.19
Monthly dry ombrothermic index.....(Iod1):	No
Bimonthly dry ombrothermic index.....(Iod2):	0.02
Threemonthly dry ombrothermic index.....(Iod3):	0.04
Fourmonthly dry ombrothermic index.....(Iod4):	0.14
Annual ombro-evaporation index.....(Ioe):	0.43
Annual positive temperature.....(Tp):	3168
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	773
Positive precipitation.....(Pp):	695

N. of Months	P>4T	P:2T-4T	PT-2T	P<T	T<0
	2	4	0	6	0

Latitudinal Belt...: Eutropical

Continentality.....: Hyperoceanic - Low Ultrahyperoceanic

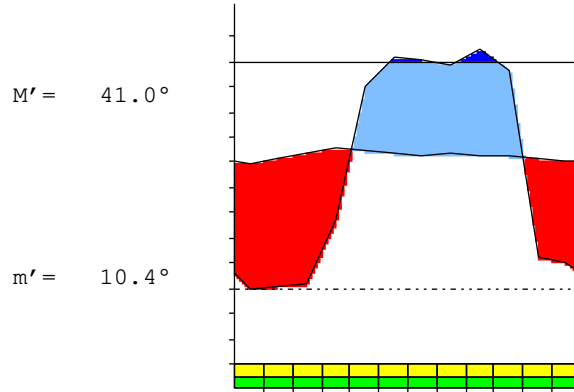
Bioclimate(Variant): TROPICAL XERIC (DRY)

Bioclimatic Belt...: UPPER INFRATROPICAL LOW DRY

REMANSO (BRAZIL)

401 m

P= 695 9° 38'S 42° 6'W 30/30 y.
 T= 26.4 ° Ic= 3.2 Tp= 3168 Tn= 0
 m= 19.3 ° M= 30.7 ° Itc= 764 Io= 2.2



TROPICAL XERIC (DRY)
 UPPER INFRATROPICAL LOW DRY

WATER INDEX CARD REMANSO (BRAZIL)
 Altitude: 401 m. Latitude: 9° 38'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	24.8	104	0	0	0	0	104	0	0	-1.0
Aug.	25.6	120	1	0	0	1	119	0	0	-0.9
Sep.	26.9	139	2	0	0	2	137	0	0	-0.9
Oct.	28.0	156	27	0	0	27	129	0	0	-0.8
Nov.	27.5	151	80	0	0	80	71	0	0	-0.4
Dec.	26.9	153	114	0	0	114	39	0	0	-0.2
Jan.	26.6	147	104	0	0	104	43	0	0	-0.2
Feb.	26.8	134	97	0	0	97	37	0	0	-0.2
Mar.	26.5	140	153	13	13	140	0	0	0	0.0
Apr.	26.4	130	93	-13	0	106	24	0	0	-0.2
May.	25.8	122	13	0	0	13	109	0	0	-0.8
Jun.	25.0	103	11	0	0	11	92	0	0	-0.8
Year	26.4	1599	695	*	*	695	904	0	0	*

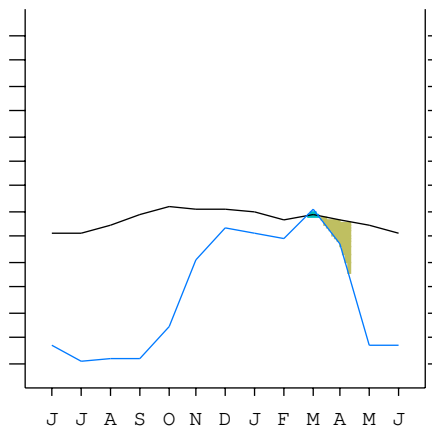
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

REMANSO (BRAZIL)

9°38'S 42°6'W 401 m 30/30 y.

T= 26.4 Ic= 3.2 TROPICAL XERIC (DRY)
 m= 19.3 Tp= 3168 UPPER INFRATROPICAL
 M= 30.7 Tn= 0 LOW DRY
 M' = 41.0 Itc= 764
 m' = 10.4 Io= 2.2
 P= 695 mm ———
 PE= 1599 mm ———

Imbibing	23 Feb.
Saturation	8 Mar.
Reserve Use	11 Apr.
Deficit	



REMANSO (BRAZIL)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [A1b]
+ Type: A. Hyperoceanic
+ Subtype: 1. Ultrahyperoceanic
+ Variant: b. Low

Thermic types [A2.A1]
+ Latitudinal zone: A. Warm
+ Latitudinal belt: 2. Eutropical
+ Thermic type: A. Warm
+ Thermic subtype: 1. Torrid

Bioclimatic types [A3.1a.5b]
+ Macrobioclimate: A. TROPICAL
+ Bioclimate: 3. XERIC
+ Bioclimatic variant .: DRY
+ Thermic type.....: 1. INFRATROPICAL
+ Thermic subtype.....: a. UPPER
+ Ombrothermic type ...: 5. DRY
+ Ombrothermic subtype : b. LOW

Bioclimatic ClassificationTrxe (Dry).Itr.Dry.Uho

REMANSO (BRAZIL)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 424
Coldest semester of the year.....(Psw): 271
Warmest four months period of the year.....(Pcm1): 223
Following warmest four months period.....(Pcm2): 447
Positive precipitation dryest 3 months.....(Ppd): 3
Positive precipitation dryest 2 months.....(Ppd2): 1
Positive precipitation dryest 1 month.....(Ppd1): 0
Positive precipitation warmest 3 months.....(Pps): 109
Positive precipitation warmest 2 months.....(Pps2): 107
Positive precipitation warmest 1 month.....(Pps1): 27
Positive precipitation coldest 3 months.....(Ppw): 12
Positive precipitation coldest 2 months.....(Ppw2): 11
Positive precipitation coldest 1 month.....(Ppw1): 0

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	12	109	315	259

Tropical rainfall rhythms: 1 > 2 > 4 > 3

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 28.0
Average coldest month [T].....(Tmin): 24.8
Maximum temp. warmest month [M].....(Tmmax): 34.0
Minimum temp. coldest month [m].....(Tmmin): 19.3
Absolute Max.temp. warmest month [M'].....(Tamax): 41.0
Absolute Min.temp. coldest month [m'].....(Tamin): 10.4
First warmest contrasted month [M].....(Tcmax): 33.2 (9)
First coldest contrasted month [m].....(Tcmin): 21.5 (9)
Dry station temperature.....(Td): 773
Positive temperature dryest 3 months.....(Tpd): 773
Positive temperature dryest 2 months.....(Tpd2): 504
Positive temperature dryest 1 month.....(Tpd1): 248
Positive temperature warmest 3 months.....(Tps): 824
Positive temperature warmest 2 months.....(Tps2): 555
Positive temperature warmest 1 month.....(Tps1): 280
Positive temperature coldest 3 months.....(Tpw): 754
Positive temperature coldest 2 months.....(Tpw2): 498
Positive temperature coldest 1 month.....(Tpw1): 248

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SEASONAL PARAMETERS

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Warmest semester...(Sms)	o	o							o	o	o	o
Dryest semester....(Smd)					o	o	o	o	o	o		
Warmest 4 months...(Cm1)									o	o	o	o
Dryest 4 months....(Cmd)						o	o	o	o			
Vegetation Activity(Pav)	o	o	o	o	o	o	o	o	o	o	o	o
Ultragelid...[M'<=0] (Pf)												
Hypergelid...[M <=0] (Pf)												
Gelid.....[T <=0] (Pf)												
Subgelid.....[m <=0] (Pf)												
Pregelid.....[m'<=0] (Pf)												
Agelid.....[m'> 0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o
HiperAgelid..[all>0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 2.30
 Mediterranean index of January.....(Im1): No
 Mediterranean index of January & February....(Im2): No
 Mediterranean index of December to February...(Im3): No

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	1140	1040	970	1530	930	130	110	0	10	20	270	800
Tp	269	266	268	265	264	258	250	248	256	269	280	275
Io (Iom)	4.24	3.91	3.62	5.77	3.52	0.50	0.44	0.00	0.04	0.07	0.96	2.91
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	3150 / 803			2590 / 787			120 / 754			1090 / 824		
Io (Iot)	3.923			3.291			0.159			1.323		
Semesters	December-May						June-November					
Pp(x10)/Tp	5740 / 1590						1210 / 1578					
Io (Iosm)	3.610						0.767					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 6950/3168=2.19 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1140	1040	970	1530	930	130	110	0	10	20	270	800
Tp [T*10]	269	266	268	265	264	258	250	248	256	269	280	275
Iom [Pp/Tp]	424	391	362	577	352	50	44	0	4	7	96	291
Avm [200-Iom]	***	***	***	***	***	150	156	200	196	193	104	***
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	3150 / 803			2590 / 787			120 / 754			1090 / 824		
Iot [Pp/Tp]	392			329			16			132		
Avs E[Avm<200]	***			***			552			***		
Lower ultrahyperarid [3]							Upper ultrahyperarid [1]					
Strong lower arid [1]							Weak lower arid [1]					
Weak upper arid [1]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	3.20
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		12.11
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		2.19
+ Hyperoceanic (-20<CI<20)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		0.76
+ Oceanic (0.6<CI<1.1)		
Rainfall Index of Lang (1925) [R=P/T]		26.33
+ Steppic (40>R>0)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		19.09
+ Semiarid -mediterranean- (20>Ia>15)		
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]		88.70
+ Subhumid (90>Q>50)		
I of Dantin & Revenga (1940) [DR=100*T/P]		3.80
+ Arid (6>DR>3)		
Aridity Index of UNEP [I=P/PE]		0.43
+ Semiarid (0.5>Im>0.2)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P].....		33.68
+ Very low (K<60)		

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate A. Warm and temperate warm
 + Region 3. Termoxeroteric (Mediterranean warm)
 + Thermic type: 1. Megathermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.37	0.34	0.57	0.33	0.04	0.03	0.00	0.00	0.00	0.08	0.27	0.41
T-E ratio	11.97	12.06	11.92	11.88	11.61	11.25	11.16	11.52	12.10	12.60	12.38	12.10
Precipitation-effectiveness: 24.54						Temperature-efficiency: 142.56						
Moisture Index [MI=100*(P-PE)/PE]												
+ D.Semiarid (-66.7<MI<-33.3)												
Index of dryness [DI=100*d/PE]												
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]												
+ No surplus (0<HI<10)												
Potential Evapotranspiration PE												
+ Megathermic (PE>1440)												

