

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

BAURU (BRAZIL)

Altitude: 611 m.

Latitude: 22°20'S Longitude: 49°3'W

Temperature observation period.: 1992-1994 (3)

Rainfall observation period....: 1991-1994 (4)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	22.78	27.22	18.33	0.00	11.11	166.6	110.33
Feb.	23.61	28.33	18.89	0.00	15.00	150.6	104.04
Mar.	22.78	27.22	18.33	0.00	12.22	162.8	100.74
Apr.	20.00	26.11	13.89	0.00	7.22	33.3	68.59
May.	18.89	23.89	13.89	0.00	7.22	16.3	59.64
Jun.	17.50	23.33	11.67	0.00	7.78	23.9	47.52
Jul.	17.50	23.33	11.67	0.00	7.22	1.8	49.63
Aug.	18.89	25.00	12.78	0.00	7.22	7.4	62.15
Sep.	20.27	26.11	14.44	0.00	6.11	34.3	73.65
Oct.	21.39	26.67	16.11	0.00	10.00	199.7	91.51
Nov.	22.50	27.22	17.78	0.00	13.89	279.4	102.62
Dec.	21.95	27.22	16.67	0.00	12.22	63.8	102.32
Year	20.67	25.97	15.37	0.00	9.77	1140	972.75

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	557
Compensated thermicity index.....(Itc):	557
Simple continentality index.....(Ic):	6.1
Diurnality index.....(Id):	12.2
Annual ombrothermic index.....(Io):	4.60
Monthly dry ombrothermic index.....(Iod1):	0.10
Bimonthly dry ombrothermic index.....(Iod2):	0.25
Three monthly dry ombrothermic index.....(Iod3):	0.61
Four monthly dry ombrothermic index.....(Iod4):	0.68
Annual ombro-evaporation index.....(Ioe):	8.74
Annual positive temperature.....(Tp):	2481
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	539
Positive precipitation.....(Pp):	1140

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	5	1	3	3	0

Latitudinal Belt...: Eutropical

Continentalty.....: Hyperoceanic - Low Euhyperoceanic

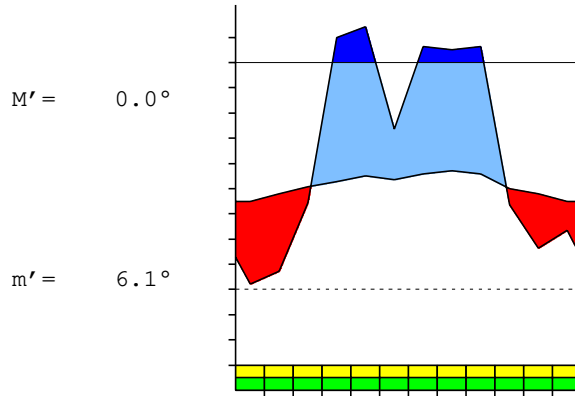
Bioclimate(Variant): TROPICAL PLUVISEASONAL (PLUVISEROTIN, SUBXEROPHYTIC)

Bioclimatic Belt...: UPPER THERMOTROPICAL LOW SUBHUMID

BAURU (BRAZIL)

611 m

P= 1140 22° 20'S 49° 3'W 3/4 y.
 T= 20.7° Ic= 6.1 Tp= 2481 Tn= 0
 m= 11.7° M= 23.3° Itc= 557 Io= 4.6



TROPICAL PLUVISEASONAL (PLUVISEROTIN)
 UPPER THERMOTROPICAL LOW SUBHUMID

WATER INDEX CARD

BAURU (BRAZIL)

Altitude: 611 m.

Latitude: 22° 20'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	17.5	50	2	0	0	2	48	0	3	-0.9
Aug.	18.9	62	7	0	0	7	55	0	2	-0.8
Sep.	20.3	74	34	0	0	34	39	0	1	-0.5
Oct.	21.4	92	200	100	100	92	0	8	4	1.1
Nov.	22.5	103	279	0	100	103	0	177	91	1.7
Dec.	22.0	102	64	-39	61	102	0	0	45	-0.3
Jan.	22.8	110	167	39	100	110	0	18	32	0.5
Feb.	23.6	104	151	0	100	104	0	47	39	0.4
Mar.	22.8	101	163	0	100	101	0	62	51	0.6
Apr.	20.0	69	33	-35	65	69	0	0	25	-0.5
May.	18.9	60	16	-43	21	60	0	0	13	-0.7
Jun.	17.5	48	24	-21	0	45	2	0	6	-0.4
Year	20.7	973	1140	*	*	829	144	311	311	*

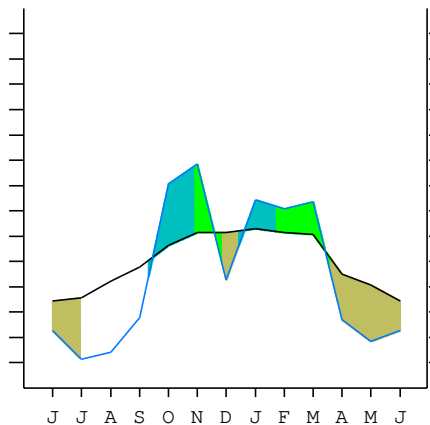
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

BAURU (BRAZIL)

22°20'S 49°3'W 611 m 3/4 y.

T= 20.7 Ic= 6.1 TROPICAL PLUVISEASONAL (PLUVISEROTIN)
 m= 11.7 Tp= 2481 UPPER THERMOTROPICAL
 M= 23.3 Tn= 0 LOW SUBHUMID
 M' = 0.0 Itc= 557
 m' = 6.1 Io= 4.6
 P= 1140 mm ———
 PE= 973 mm ———

Imbibing	13 Dec.
Saturation	21 Jan.
Reserve Use	20 Mar.
Deficit	28 Jun.



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [A2b]
 + Type: A. Hyperoceanic
 + Subtype: 2. Euhyperoceanic
 + Variant: b. Low

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

Bioclimatic types [A4e.2a.6b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 4. PLUVISEASONAL
 + Bioclimatic variant ..: e. PLUVISEROTIN, SUBXEROPHYTIC
 + Thermic type.....: 2. THERMOTROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : b. LOW

Bioclimatic Classification: Trde (Pse).Ttr.Shu

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 1023
 Coldest semester of the year.....(Psw): 117
 Warmest four months period of the year.....(Pcm1): 544
 Following warmest four months period.....(Pcm2): 75
 Positive precipitation dryest 3 months.....(Ppd): 33
 Positive precipitation dryest 2 months.....(Ppd2): 9
 Positive precipitation dryest 1 month.....(Ppd1): 2
 Positive precipitation warmest 3 months.....(Pps): 480
 Positive precipitation warmest 2 months.....(Pps2): 317
 Positive precipitation warmest 1 month.....(Pps1): 151
 Positive precipitation coldest 3 months.....(Ppw): 42
 Positive precipitation coldest 2 months.....(Ppw2): 26
 Positive precipitation coldest 1 month.....(Ppw1): 24

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	33	513	381	212

Tropical rainfall rhythms: 4 > 1 > 2 > 3

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 23.6
 Average coldest month [T].....(Tmin): 17.5
 Maximum temp. warmest month [M].....(Tmmax): 28.3
 Minimum temp. coldest month [m].....(Tmmin): 11.7
 Absolute Max.temp. warmest month [M'].....(Tamax): 0.0
 Absolute Min.temp. coldest month [m'].....(Tamin): 6.1
 First warmest contrasted month [M].....(Tcmax): 26.1 (4)
 First coldest contrasted month [m].....(Tcmin): 13.9 (4)
 Dry station temperature.....(Td): 539
 Positive temperature dryest 3 months.....(Tpd): 539
 Positive temperature dryest 2 months.....(Tpd2): 364
 Positive temperature dryest 1 month.....(Tpd1): 175
 Positive temperature warmest 3 months.....(Tps): 692
 Positive temperature warmest 2 months.....(Tps2): 464
 Positive temperature warmest 1 month.....(Tps1): 236
 Positive temperature coldest 3 months.....(Tpw): 539
 Positive temperature coldest 2 months.....(Tpw2): 350
 Positive temperature coldest 1 month.....(Tpw1): 175

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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): 0.85
 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)	638	1666	1506	1628	333	163	239	18	74	343	1997	2794
Tp	220	228	236	228	200	189	175	175	189	203	214	225
Io (Iom)	2.91	7.31	6.38	7.15	1.67	0.86	1.37	0.10	0.39	1.69	9.34	12.4
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	3810 / 683			2124 / 617			331 / 539			5134 / 642		
Io (Iot)	5.575			3.444			0.614			8.002		
Semesters	December-May						June-November					
Pp(x10)/Tp	5934 / 1300						5465 / 1181					
Io (Iosm)	4.564						4.629					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 11399/2481=4.60 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	638	1666	1506	1628	333	163	239	18	74	343	1997	2794
Tp [T*10]	220	228	236	228	200	189	175	175	189	203	214	225
Iom [Pp/Tp]	291	731	638	715	167	86	137	10	39	169	934	\$\$
Avm [200-Iom]	***	***	***	***	34	114	63	190	161	31	***	***
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	3810 / 683			2124 / 617			331 / 539			5134 / 642		
Iot [Pp/Tp]	558			344			61			800		
Avs E[Avm<200]	***			***			414			***		
Upper ultrahyperarid [1]						Upper hyperarid [1]						
Weak lower arid [1]						Weak upper arid [1]						
Weak lower semiarid [1]						Strong upper semiarid [2]						

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 6.11
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 6.93
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 5.42
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 0.72
 + Oceanic (0.6<CI<1.1)
 Rainfall Index of Lang (1925) [R=P/T]: 55.14
 + Semiarid (60>R>40)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 37.16
 + Humid (60>Ia>30)
 I of Emberger (1930) [Q=100*P/(Tmax²-Tmin²)]: 171.05
 + Humid (Q>90)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 1.81
 + Humid (2>DR>0)
 Aridity Index of UNEP [I=P/PE]: 1.17
 + Humid (I>0.65)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 68.48
 + Low (60<K<90)

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate: A. Warm and temperate warm
 + Region: 3. Termoxeroteritic (Mediterranean warm)
 + Thermic type: 2. Macrothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.69	0.60	0.67	0.12	0.06	0.09	0.01	0.02	0.13	0.87	1.23	0.24
T-E ratio	10.25	10.62	10.25	9.00	8.50	7.88	7.88	8.50	9.12	9.63	10.13	9.88
Precipitation-effectiveness:	47.13					Temperature-efficiency: 111.63						
Moisture Index [MI=100*(P-PE)/PE]: 17.18 + C2.Subhumid humid (0<MI<20)												
Index of dryness [DI=100*d/PE]: 14.81 + No deficit (0<DI<16.7)												
Index of humidity [HI=100*s/PE]: 32.00 + Strong surplus (20<HI)												
Potential Evapotranspiration PE: 972.75 + Third mesothermic (855<PE<997)												

