

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

TACAAGLE (ARGENTINA)

Altitude: 87 m.

Latitude: 24°58'S Longitude: 58°49'W

Temperature observation period.: 1941-1950 (10)

Rainfall observation period....: 1941-1950 (10)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	28.70	36.30	21.20	42.80	11.50	118.0	179.14
Feb.	28.10	35.10	21.40	43.00	9.00	116.0	149.79
Mar.	25.80	32.60	19.60	40.10	9.40	162.0	131.92
Apr.	23.30	29.70	16.80	38.50	2.70	79.0	89.74
May.	20.80	26.70	14.50	35.50	0.50	74.0	63.22
Jun.	18.30	23.85	12.20	34.00	-4.00	87.0	40.82
Jul.	17.70	23.80	11.50	34.50	-1.40	38.0	39.16
Aug.	20.50	27.50	12.70	41.00	-1.50	19.0	63.83
Sep.	21.90	29.20	14.60	41.00	-1.21	56.0	78.10
Oct.	24.00	31.20	16.90	43.30	4.00	95.0	112.05
Nov.	25.80	33.00	18.30	42.40	8.30	144.0	139.46
Dec.	28.10	35.60	20.00	44.00	9.40	68.0	175.00
Year	23.58	30.38	16.64	40.01	3.89	1056	1262.2

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	589
Compensated thermicity index.....(Itc):	589
Simple continentality index.....(Ic):	11.0
Diurnality index.....(Id):	15.6
Annual ombrothermic index.....(Io):	3.73
Monthly dry ombrothermic index.....(Iod1):	0.93
Bimonthly dry ombrothermic index.....(Iod2):	1.49
Three monthly dry ombrothermic index.....(Iod3):	1.88
Four monthly dry ombrothermic index.....(Iod4):	2.55
Annual ombro-evaporation index.....(Ioe):	1.99
Annual positive temperature.....(Tp):	2830
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	601
Positive precipitation.....(Pp):	1056

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	5	6	0	1	0

Latitudinal Belt...: Subtropical

Continentality.....: Hyperoceanic - Low Subhyperoceanic

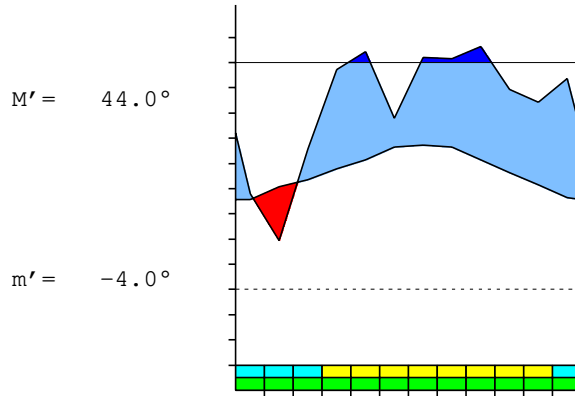
Bioclimate(Variant): TROPICAL PLUVISEASONAL (PLUVISEROTIN, MESOPHYTIC)

Bioclimatic Belt...: LOW THERMOTROPICAL LOW SUBHUMID

TACAAGLE (ARGENTINA)

87 m

P= 1056 24° 58' S 58° 49' W 10/10 y.
 T= 23.6° Ic= 11.0 Tp= 2830 Tn= 0
 m= 11.5° M= 23.8° Itc= 589 Io= 3.7



TROPICAL PLUVISEASONAL (PLUVISEROTIN)
 LOW THERMOTROPICAL LOW SUBHUMID

WATER INDEX CARD

TACAAGLE (ARGENTINA)

Altitude: 87 m.

Latitude: 24° 58' S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	17.7	39	38	-1	75	39	0	0	0	0.0
Aug.	20.5	64	19	-45	30	64	0	0	0	-0.7
Sep.	21.9	78	56	-22	8	78	0	0	0	-0.2
Oct.	24.0	112	95	-8	0	103	9	0	0	-0.1
Nov.	25.8	139	144	5	5	139	0	0	0	0.0
Dec.	28.1	175	68	-5	0	73	102	0	0	-0.6
Jan.	28.7	179	118	0	0	118	61	0	0	-0.3
Feb.	28.1	150	116	0	0	116	34	0	0	-0.2
Mar.	25.8	132	162	30	30	132	0	0	0	0.2
Apr.	23.3	90	79	-11	19	90	0	0	0	-0.1
May.	20.8	63	74	11	30	63	0	0	0	0.1
Jun.	18.3	41	87	46	76	41	0	0	0	1.1
Year	23.6	1262	1056	*	*	1056	206	0	0	*

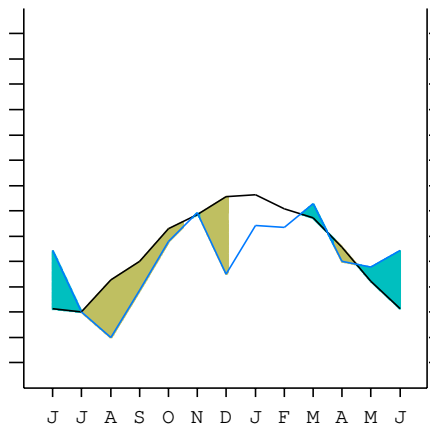
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

TACAAGLE (ARGENTINA)

24°58' S 58°49' W 87 m 10/10 y.

T= 23.6 Ic= 11.0 TROPICAL PLUVISEASONAL (PLUVISEROTIN)
 m= 11.5 Tp= 2830 LOW THERMOTROPICAL
 M= 23.8 Tn= 0 LOW SUBHUMID
 M' = 44.0 Itc= 589
 m' = -4.0 Io= 3.7
 P= 1056 mm ———
 PE= 1262 mm ———

Imbibing	15 Apr.
Saturation	23 Mar.
Reserve Use	2 Dec.
Deficit	



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [A3b]
 + Type: A. Hyperoceanic
 + Subtype: 3. Subhyperoceanic
 + Variant: b. Low
 Thermic types [A3.A2]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 3. Subtropical
 + Thermic type: A. Warm
 + Thermic subtype: 2. Warm
 Bioclimatic types [A4e.2b.6b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 4. PLUVISEASONAL
 + Bioclimatic variant .: e. PLUVISEROTIN, MESOPHYTIC
 + Thermic type.....: 2. THERMOTROPICAL
 + Thermic subtype.....: b. LOW
 + 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): 703
 Coldest semester of the year.....(Psw): 353
 Warmest four months period of the year.....(Pcm1): 446
 Following warmest four months period.....(Pcm2): 402
 Positive precipitation dryest 3 months.....(Ppd): 113
 Positive precipitation dryest 2 months.....(Ppd2): 57
 Positive precipitation dryest 1 month.....(Ppd1): 19
 Positive precipitation warmest 3 months.....(Pps): 302
 Positive precipitation warmest 2 months.....(Pps2): 234
 Positive precipitation warmest 1 month.....(Pps1): 118
 Positive precipitation coldest 3 months.....(Ppw): 144
 Positive precipitation coldest 2 months.....(Ppw2): 125
 Positive precipitation coldest 1 month.....(Ppw1): 38

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	144	295	302	315

Seasonal rainfall rhythms: F > S > P > W

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 28.7
 Average coldest month [T].....(Tmin): 17.7
 Maximum temp. warmest month [M].....(Tmmax): 36.3
 Minimum temp. coldest month [m].....(Tmmin): 11.5
 Absolute Max.temp. warmest month [M'].....(Tamax): 44.0
 Absolute Min.temp. coldest month [m'].....(Tamin): -4.0
 First warmest contrasted month [M].....(Tcmax): 35.6 (12)
 First coldest contrasted month [m].....(Tcmin): 20.0 (12)
 Dry station temperature.....(Td): 601
 Positive temperature dryest 3 months.....(Tpd): 601
 Positive temperature dryest 2 months.....(Tpd2): 382
 Positive temperature dryest 1 month.....(Tpd1): 205
 Positive temperature warmest 3 months.....(Tps): 849
 Positive temperature warmest 2 months.....(Tps2): 568
 Positive temperature warmest 1 month.....(Tps1): 287
 Positive temperature coldest 3 months.....(Tpw): 565
 Positive temperature coldest 2 months.....(Tpw2): 360
 Positive temperature coldest 1 month.....(Tpw1): 177

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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)						o	o	o	o			
Agelid.....[m' > 0] (Pf)	o	o	o	o	o					o	o	o
HiperAgelid..[all>0] (Pf)	o	o	o	o	o					o	o	o

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.20
 Mediterranean index of January.....(Im1): 1.52
 Mediterranean index of January & February.....(Im2): 1.41
 Mediterranean index of December to February...(Im3): 1.67

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	680	1180	1160	1620	790	740	870	380	190	560	950	1440
Tp	281	287	281	258	233	208	183	177	205	219	240	258
Io (Iom)	2.42	4.11	4.13	6.28	3.39	3.56	4.75	2.15	0.93	2.56	3.96	5.58
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	3020 / 849			3150 / 699			1440 / 565			2950 / 717		
Io (Iot)	3.557			4.506			2.549			4.114		
Semesters	December-May						June-November					
Pp(x10)/Tp	6170 / 1548						4390 / 1282					
Io (Iosm)	3.986						3.424					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 10560/2830=3.73 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	680	1180	1160	1620	790	740	870	380	190	560	950	1440
Tp [T*10]	281	287	281	258	233	208	183	177	205	219	240	258
Iom [Pp/Tp]	242	411	413	628	339	356	475	215	93	256	396	558
Avm [200-Iom]	***	***	***	***	***	***	***	***	107	***	***	***
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	3020 / 849			3150 / 699			1440 / 565			2950 / 717		
Iot [Pp/Tp]	356			451			255			411		
Avs E[Avm<200]	***			***			***			***		
Weak upper arid [1]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp): 11.00
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]	23.90
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]	18.63
+ Hyperoceanic (-20<CI<20)	
CI of Currey (1974) [CI=Sp/(1+Lat/3)]	1.18
+ Subcontinental (1.1<CI<1.7)	
Rainfall Index of Lang (1925) [R=P/T]	44.78
+ Semiarid (60>R>40)	
Aridity Index of Martonne (1926) [Ia=P/(T+10)]	31.44
+ Humid (60>Ia>30)	
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]	89.08
+ Subhumid (90>Q>50)	
I of Dantin & Revenga (1940) [DR=100*T/P]	2.23
+ Semiarid (3>DR>2)	
Aridity Index of UNEP [I=P/PE]	0.84
+ Humid (I>0.65)	
Potential Erosion I of Fournier (1960) [K=Pi ² /P]	24.85
+ Very low (K<60)	

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate

- + Climate
- + Region
- + Thermic type: 2. Macrothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.41	0.41	0.62	0.30	0.29	0.37	0.15	0.06	0.21	0.36	0.54	0.22
T-E ratio	12.92	12.65	11.61	10.48	9.36	8.23	7.97	9.23	9.85	10.80	11.61	12.65
Precipitation-effectiveness: 39.43						Temperature-efficiency						127.35
Moisture Index [MI=100*(P-PE)/PE]												
+ C1.Subhumid dry (-33.3<MI<0)												
Index of dryness [DI=100*d/PE]												
+ No deficit (0<DI<16.7)												
Index of humidity [HI=100*s/PE]												
+ No surplus (0<HI<10)												
Potential Evapotranspiration PE												
+ Forth mesothermic (997<PE<1440)												

