

# Phytosociological Research Center

www.globalbioclimatics.org

## Worldwide Bioclimatic Classification System

S.Rivas-Martinez(+) & S.Rivas-Saenz

(Adapted to Synoptical Table 14/02/2020)

FARO CABO BLANCO (ARGENTINA)

Altitude: 39 m.

Latitude: 47°12'S Longitude: 65°46'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.	13.70	19.60	10.40	34.60	4.00	9.0	91.85
Feb.	13.90	18.80	10.50	28.50	4.00	6.0	77.10
Mar.	12.50	17.30	9.00	27.80	0.00	13.0	68.58
Apr.	10.60	14.90	6.80	24.00	-8.80	6.0	47.89
May.	7.70	10.70	4.40	23.00	-4.50	16.0	31.14
Jun.	5.60	8.60	2.00	17.00	-9.00	9.0	19.75
Jul.	5.30	8.30	3.00	16.50	-8.50	24.0	20.25
Aug.	5.30	8.70	1.90	18.20	-4.00	14.0	23.41
Sep.	6.20	10.30	3.20	20.00	-4.00	19.0	30.54
Oct.	8.80	13.60	5.80	24.50	0.00	6.0	51.96
Nov.	10.10	15.50	7.20	31.00	0.00	12.0	63.83
Dec.	12.80	17.90	9.60	33.00	1.00	11.0	87.66
Year	9.38	13.68	6.15	24.84	-2.48	145	613.95

### BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	207
Compensated thermicity index.....(Itc):	207
Simple continentality index.....(Ic):	8.6
Diurnality index.....(Id):	9.2
Annual ombrothermic index.....(Io):	1.29
Monthly estival ombrothermic index.....(Ios1):	0.43
Bimonthly estival ombrothermic index.....(Ios2):	0.54
Threemonthly estival ombrothermic index.....(Ios3):	0.64
Fourmonthly estival ombrothermic index.....(Ios4):	0.75
Annual ombro-evaporation index.....(Ioe):	0.24
Annual positive temperature.....(Tp):	1125
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	404
Positive precipitation.....(Pp):	145

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

Latitudinal Belt...: High Eutemperate

Continentality.....: Hyperoceanic - High Subhyperoceanic

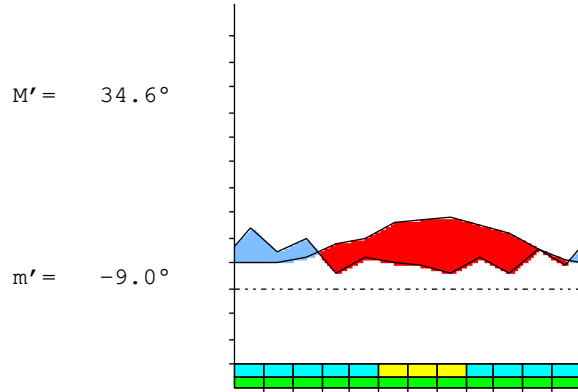
Bioclimate.....: MEDITERRANEAN XERIC-OCEANIC

Bioclimatic Belt...: LOW SUPRAMEDITERRANEAN LOW SEMIARID

FARO CABO BLANCO (ARGENTINA)

39 m

P= 145      47° 12'S      65° 46'W      10/10 y.  
 T= 9.4 °      Ic= 8.6      Tp= 1125      Tn= 0  
 m= 3.0 °      M= 8.3 °      Itc= 207      Io= 1.3



MEDITERRANEAN XERIC-OCEANIC  
 LOW SUPRAMEDITERRANEAN LOW SEMIARID

WATER INDEX CARD      FARO CABO BLANCO (ARGENTINA)  
 Altitude: 39 m.      Latitude: 47° 12'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	5.3	20	24	4	4	20	0	0	0	0.1
Aug.	5.3	23	14	-4	0	18	6	0	0	-0.4
Sep.	6.2	31	19	0	0	19	12	0	0	-0.3
Oct.	8.8	52	6	0	0	6	46	0	0	-0.8
Nov.	10.1	64	12	0	0	12	52	0	0	-0.8
Dec.	12.8	88	11	0	0	11	77	0	0	-0.8
Jan.	13.7	92	9	0	0	9	83	0	0	-0.9
Feb.	13.9	77	6	0	0	6	71	0	0	-0.9
Mar.	12.5	69	13	0	0	13	56	0	0	-0.8
Apr.	10.6	48	6	0	0	6	42	0	0	-0.8
May.	7.7	31	16	0	0	16	15	0	0	-0.4
Jun.	5.6	20	9	0	0	9	11	0	0	-0.5
Year	9.4	614	145	*	*	145	469	0	0	*

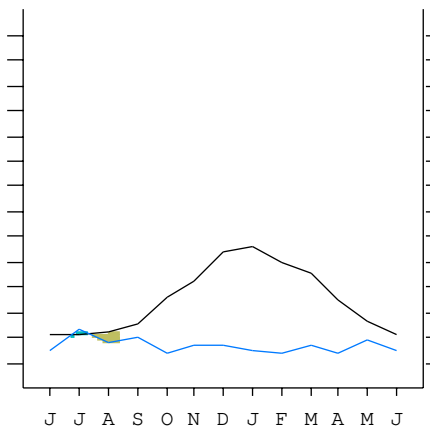
R = Reserve    VR = Variation of the reserve    RE = Real evapotranspiration  
 DR = Drainage    HC = Humidity coefficient    DF = Deficit    SP = Superavit

FARO CABO BLANCO (ARGENTINA)

47°12'S    65°46'W    39 m 10/10 y.

T= 9.4      Ic= 8.6      MEDITERRANEAN XERIC-OCEANIC  
 m= 3.0      Tp= 1125      LOW SUPRAMEDITERRANEAN  
 M= 8.3      Tn= 0      LOW SEMIARID  
 M' = 34.6    Itc= 207  
 m' = -9.0    Io= 1.3  
 P= 145      mm    ———  
 PE= 614     mm    ———

Imbibing	23 Jun.
Saturation	9 Jul.
Reserve Use	12 Aug.
Deficit	



FARO CABO BLANCO (ARGENTINA)

Latitude: 47°12'S Longitude: 65°46'W Altitude: 39 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [A3a]  
 + Type .....: A. Hyperoceanic  
 + Subtype .....: 3. Subhyperoceanic  
 + Variant .....: a. High  
 Thermic types [B1.B5]  
 + Latitudinal zone ....: B. Temperate  
 + Latitudinal belt ....: 1. High Eutemperate  
 + Thermic type .....: B. Temperate  
 + Thermic subtype .....: 5. Subtemperate  
 Bioclimatic types [B6.4b.4b]  
 + Macrobioclimate .....: B. MEDITERRANEAN  
 + Bioclimate .....: 6. XERIC-OCEANIC  
 + Bioclimatic variant .:  
 + Thermic type.....: 4. SUPRAMEDITERRANEAN  
 + Thermic subtype.....: b. LOW  
 + Ombrothermic type ...: 4. SEMIARID  
 + Ombrothermic subtype : b. LOW  
 Bioclimatic Classification .....Mexo.Sme.Sar.Sho

FARO CABO BLANCO (ARGENTINA)

Latitude: 47°12'S Longitude: 65°46'W Altitude: 39 m

PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 57  
 Coldest semester of the year.....(Psw): 88  
 Warmest four months period of the year.....(Pcm1): 39  
 Following warmest four months period.....(Pcm2): 55  
 Positive precipitation dryest 3 months.....(Ppd): 25  
 Positive precipitation dryest 2 months.....(Ppd2): 15  
 Positive precipitation dryest 1 month.....(Ppd1): 6  
 Positive precipitation warmest 3 months.....(Pps): 26  
 Positive precipitation warmest 2 months.....(Pps2): 15  
 Positive precipitation warmest 1 month.....(Pps1): 6  
 Positive precipitation coldest 3 months.....(Ppw): 47  
 Positive precipitation coldest 2 months.....(Ppw2): 38  
 Positive precipitation coldest 1 month.....(Ppw1): 24

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	47	37	26	35

Seasonal rainfall rhythms: W > P > F > S

FARO CABO BLANCO (ARGENTINA)

Latitude: 47°12'S Longitude: 65°46'W Altitude: 39 m

TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 13.9  
 Average coldest month [T].....(Tmin): 5.3  
 Maximum temp. warmest month [M].....(Tmmax): 19.6  
 Minimum temp. coldest month [m].....(Tmmin): 1.9  
 Absolute Max.temp. warmest month [M'].....(Tamax): 34.6  
 Absolute Min.temp. coldest month [m'].....(Tamin): -9.0  
 First warmest contrasted month [M].....(Tcmax): 19.6 (1)  
 First coldest contrasted month [m].....(Tcmin): 10.4 (1)  
 Estival temperature.....(Ts): 404  
 Positive temperature dryest 3 months.....(Tpd): 370  
 Positive temperature dryest 2 months.....(Tpd2): 276  
 Positive temperature dryest 1 month.....(Tpd1): 139  
 Positive temperature warmest 3 months.....(Tps): 404  
 Positive temperature warmest 2 months.....(Tps2): 276  
 Positive temperature warmest 1 month.....(Tps1): 139  
 Positive temperature coldest 3 months.....(Tpw): 162  
 Positive temperature coldest 2 months.....(Tpw2): 106  
 Positive temperature coldest 1 month.....(Tpw1): 53

FARO CABO BLANCO (ARGENTINA)

Latitude: 47°12'S Longitude: 65°46'W Altitude: 39 m

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

FARO CABO BLANCO (ARGENTINA)

Latitude: 47°12'S Longitude: 65°46'W Altitude: 39 m

OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 4.23  
 Mediterranean index of January.....(Im1): 10.21  
 Mediterranean index of January & February....(Im2): 11.26  
 Mediterranean index of December to February...(Im3): 9.87

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	110	90	60	130	60	160	90	240	140	190	60	120
Tp	128	137	139	125	106	77	56	53	53	62	88	101
Io (Iom)	0.86	0.66	0.43	1.04	0.57	2.08	1.61	4.53	2.64	3.06	0.68	1.19
Seasons	Summer			Autumn			Winter			Spring		
Pp(x10)/Tp	260 / 404			350 / 308			470 / 162			370 / 251		
Io (Iot)	0.644			1.136			2.901			1.474		
Semesters	December-May						June-November					
Pp(x10)/Tp	610 / 712						840 / 413					
Io (Iosm)	0.857						2.034					

FARO CABO BLANCO (ARGENTINA)

Latitude: 47°12'S Longitude: 65°46'W Altitude: 39 m

Aridity Value Index (AVI)

[10xPP/TP=IO]: 1450/1125=1.29 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	110	90	60	130	60	160	90	240	140	190	60	120
Tp [T*10]	128	137	139	125	106	77	56	53	53	62	88	101
Iom [Pp/Tp]	86	66	43	104	57	208	161	453	264	306	68	119
Avm [200-Iom]	114	134	157	96	143	***	39	***	***	***	132	81
Seasons	Summer			Autumn			Winter			Spring		
Pp / Tp	260 / 404			350 / 308			470 / 162			370 / 251		
Iot [Pp/Tp]	64			114			290			147		
Avs E[Avm<200]	405			***			***			***		
Strong lower arid [1]							Weak lower arid [4]					
Weak upper arid [1]							Strong lower semiarid [2]					
Strong upper semiarid [1]												

FARO CABO BLANCO (ARGENTINA)

Latitude: 47°12'S Longitude: 65°46'W Altitude: 39 m

BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin] .....	(Sp):	8.60
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4] .....		-0.47
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14] .....		3.39
+ Hyperoceanic (-20<CI<20)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)] .....		0.51
+ Hyperoceanic (0<CI<0.6)		
Rainfall Index of Lang (1925) [R=P/T] .....		15.47
+ Steppic (40>R>0)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)] .....		7.48
+ Arid -steppic- (15>Ia>5)		
I of Emberger (1930) [Q=100*P/(Tmax <sup>2</sup> -Tmin <sup>2</sup> )] .....		38.10
+ Semiarid (50>Q>30)		
I of Dantin & Revenga (1940) [DR=100*T/P] .....		6.47
+ Extremely arid (DR>6)		
Aridity Index of UNEP [I=P/PE] .....		0.24
+ Semiarid (0.5>Im>0.2)		
Potencial Erosion I of Fournier (1960) [K=Pi <sup>2</sup> /P].....		3.97
+ Very low (K<60)		

FARO CABO BLANCO (ARGENTINA)

Latitude: 47°12'S Longitude: 65°46'W Altitude: 39 m

BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)  
 + Climate .....: A. Warm and temperate warm  
 + Region .....: 5. Bixeric (Bixeric)  
 + Thermic type: 5. Meso-microthermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.03	0.02	0.05	0.02	0.08	0.04	0.14	0.07	0.10	0.03	0.05	0.04
T-E ratio	6.16	6.25	5.63	4.77	3.46	2.52	2.39	2.39	2.79	3.96	4.55	5.76
Precipitation-effectiveness: 6.89						Temperature-efficiency .....: 50.63						
Moisture Index [MI=100*(P-PE)/PE] .....												
+ E.Dry (-110<MI<-66.7)												
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 .....												
+ First mesothermic (570<PE<712)												

