

Phytosociological Research Center

www.globalbioclimatics.org

Worldwide Bioclimatic Classification System

Prof.Dr. Salvador Rivas-Martinez

(Adapted to Synoptical Table 30/08/2017)

ALGAMITAS (ESP SEVILLA)

Altitude: 423 m.

Latitude: 37°0'N Longitude: 5°9'W

Temperature observation period.: 1953-1978 (26)

Rainfall observation period....: 1961-1978 (18)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	7.30	11.90	2.80	16.50	-2.80	149.3	13.48
Feb.	8.50	13.90	3.20	18.90	-2.00	146.3	17.18
Mar.	11.00	16.90	5.10	23.50	0.10	105.1	32.00
Apr.	13.90	20.80	7.00	26.80	2.20	88.4	50.49
May.	18.50	26.30	10.60	32.80	6.40	49.6	90.21
Jun.	21.70	29.40	14.10	36.40	9.30	23.9	118.67
Jul.	26.10	34.70	17.40	38.80	13.30	2.4	164.10
Aug.	26.10	34.30	18.00	38.70	13.70	0.9	153.60
Sep.	22.70	29.80	15.50	34.80	11.20	36.1	107.13
Oct.	16.50	22.40	10.50	28.90	5.00	52.2	59.26
Nov.	10.90	15.80	6.00	21.60	1.00	114.1	26.01
Dec.	7.30	11.80	2.70	16.90	-2.10	153.3	13.01
Year	15.87	22.33	9.41	27.88	4.61	922	845.13

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	306
Compensated thermicity index.....(Itc):	310
Simple continentality index.....(Ic):	18.8
Diurnality index.....(Id):	17.3
Annual ombrothermic index.....(Io):	4.84
Monthly estival ombrothermic index.....(Ios1):	0.03
Bimonthly estival ombrothermic index.....(Ios2):	0.06
Threemonthly estival ombrothermic index.....(Ios3):	0.37
Fourmonthly estival ombrothermic index.....(Ios4):	0.83
Annual ombro-evaporation index.....(Ioe):	0.22
Annual positive temperature.....(Tp):	1905
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	739
Positive precipitation.....(Pp):	922

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

Latitudinal Belt...: Low eutemperate

Continentalty.....: Oceanic - Low Semicontinental

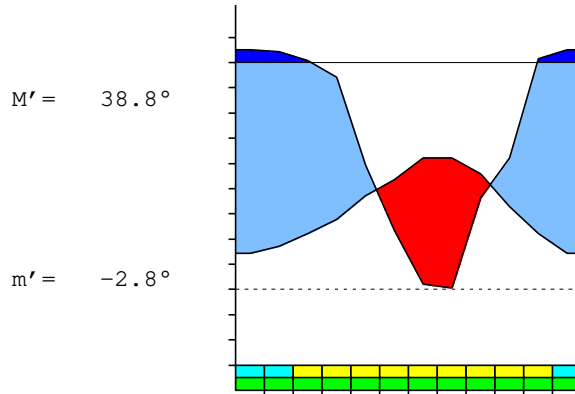
Bioclimate.....: MEDITERRANEAN PLUVISEASONAL-OCEANIC

Bioclimatic Belt...: LOW MESOMEDITERRANEAN UPPER SUBHUMID

ALGAMITAS (ESP SEVILLA)

423 m

P= 922 37° 0'N 5° 9'W 26/18 y.
 T= 15.9° Ic= 18.8 Tp= 1905 Tn= 0
 m= 2.8° M= 11.9° Itc= 310 Io= 4.8



MEDITERRANEAN PLUVISEASONAL-OCEANIC
 LOW MESOMEDITERRANEAN UPPER SUBHUMID

WATER INDEX CARD ALGAMITAS (ESP SEVILLA)
 Altitude: 423 m. Latitude: 37° 0'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	7.3	13	149	0	100	13	0	136	100	10.0
Feb.	8.5	17	146	0	100	17	0	129	115	7.5
Mar.	11.0	32	105	0	100	32	0	73	94	2.2
Apr.	13.9	50	88	0	100	50	0	38	66	0.7
May.	18.5	90	50	-41	59	90	0	0	33	-0.4
Jun.	21.7	119	24	-59	0	83	35	0	16	-0.7
Jul.	26.1	164	2	0	0	2	162	0	8	-0.9
Aug.	26.1	154	1	0	0	1	153	0	4	-0.9
Sep.	22.7	107	36	0	0	36	71	0	2	-0.6
Oct.	16.5	59	52	0	0	52	7	0	1	-0.1
Nov.	10.9	26	114	88	88	26	0	0	1	3.3
Dec.	7.3	13	153	12	100	13	0	128	64	10.7
Year	15.9	845	922	*	*	417	428	504	504	*

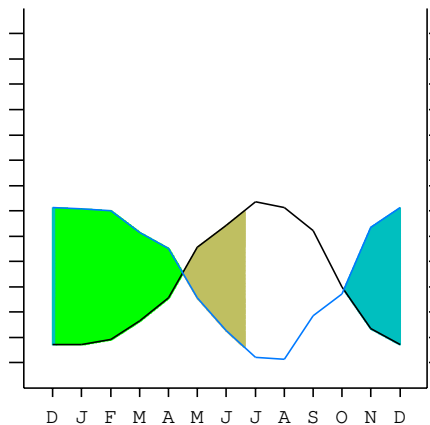
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

ALGAMITAS (ESP SEVILLA)

37°0'N 5°9'W 423 m 26/18 y.

T= 15.9 Ic= 18.8 MEDITERRANEAN PLUVISEASONAL-OCEANIC
 m= 2.8 Tp= 1905 LOW MESOMEDITERRANEAN
 M= 11.9 Tn= 0 UPPER SUBHUMID
 M' = 38.8 Itc= 310
 m' = -2.8 Io= 4.8
 P= 922 mm ———
 PE= 845 mm ———

Imbibing	3 Oct.
Saturation	3 Dec.
Reserve Use	15 Apr.
Deficit	19 Jun.



ALGAMITAS (ESP SEVILLA)

Latitude: 37°0'N Longitude: 5°9'W Altitude: 423 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [B1a]
 + Type: B. Oceanic
 + Subtype: 1. Semicontinental
 + Variant: a. Low
 Thermic types [B1.A3]
 + Latitudinal zone: B. Temperate
 + Latitudinal belt: 1. Low eutemperate
 + Thermic type: A. Warm
 + Thermic subtype: 3. Subwarm
 Bioclimatic types [B8.3b.6a]
 + Macrobioclimate: B. MEDITERRANEAN
 + Bioclimate: 8. PLUVISEASONAL-OCEANIC
 + Bioclimatic variant ..:
 + Thermic type.....: 3. MESOMEDITERRANEAN
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : a. UPPER
 Bioclimatic Classification: Mehc.Mme.Shu

ALGAMITAS (ESP SEVILLA)

Latitude: 37°0'N Longitude: 5°9'W Altitude: 423 m

PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 165
 Coldest semester of the year.....(Psw): 757
 Warmest four months period of the year.....(Pcm1): 63
 Following warmest four months period.....(Pcm2): 469
 Positive precipitation dryest 3 months.....(Ppd): 27
 Positive precipitation dryest 2 months.....(Ppd2): 3
 Positive precipitation dryest 1 month.....(Ppd1): 1
 Positive precipitation warmest 3 months.....(Pps): 39
 Positive precipitation warmest 2 months.....(Pps2): 3
 Positive precipitation warmest 1 month.....(Pps1): 2
 Positive precipitation coldest 3 months.....(Ppw): 449
 Positive precipitation coldest 2 months.....(Ppw2): 303
 Positive precipitation coldest 1 month.....(Ppw1): 149

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	448	243	27	202

Seasonal rainfall rhythms: W > P > F > S

ALGAMITAS (ESP SEVILLA)

Latitude: 37°0'N Longitude: 5°9'W Altitude: 423 m

TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 26.1
 Average coldest month [T].....(Tmin): 7.3
 Maximum temp. warmest month [M].....(Tmmax): 34.7
 Minimum temp. coldest month [m].....(Tmmin): 2.7
 Absolute Max.temp. warmest month [M'].....(Tamax): 38.8
 Absolute Min.temp. coldest month [m'].....(Tamin): -2.8
 First warmest contrasted month [M].....(Tcmax): 34.7 (7)
 First coldest contrasted month [m].....(Tcmin): 17.4 (7)
 Estival temperature.....(Ts): 739
 Positive temperature dryest 3 months.....(Tpd): 739
 Positive temperature dryest 2 months.....(Tpd2): 522
 Positive temperature dryest 1 month.....(Tpd1): 261
 Positive temperature warmest 3 months.....(Tps): 749
 Positive temperature warmest 2 months.....(Tps2): 522
 Positive temperature warmest 1 month.....(Tps1): 261
 Positive temperature coldest 3 months.....(Tpw): 231
 Positive temperature coldest 2 months.....(Tpw2): 146
 Positive temperature coldest 1 month.....(Tpw1): 73

ALGAMITAS (ESP SEVILLA)

Latitude: 37°0'N Longitude: 5°9'W Altitude: 423 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
Agelid.....[m' > 0] (Pf)			o	o	o	o	o	o	o	o	o	
HiperAgelid..[all>0] (Pf)			o	o	o	o	o	o	o	o	o	

ALGAMITAS (ESP SEVILLA)

Latitude: 37°0'N Longitude: 5°9'W Altitude: 423 m

OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 0.92
 Mediterranean index of July.[PE/P].....(Im1): 68.37
 Mediterranean index of July & August.....(Im2): 96.27
 Mediterranean index of June, July & August....(Im3): 16.04

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	1533	1493	1463	1051	884	496	239	24	9	361	522	1141
Tp	73	73	85	110	139	185	217	261	261	227	165	109
Io (Iom)	21.0	20.5	17.2	9.55	6.36	2.68	1.10	0.09	0.03	1.59	3.16	10.5
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	4489 / 231			2431 / 434			272 / 739			2024 / 501		
Io (Iot)	19.43			5.601			0.368			4.040		
Semesters	December-May						June-November					
Pp(x10)/Tp	6920 / 665						2296 / 1240					
Io (Iosm)	10.41						1.852					

ALGAMITAS (ESP SEVILLA)

Latitude: 37°0'N Longitude: 5°9'W Altitude: 423 m

Aridity Value Index (AVI)

[10xPP/TP=IO]: 9216/1905=4.84 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1533	1493	1463	1051	884	496	239	24	9	361	522	1141
Tp [T*10]	73	73	85	110	139	185	217	261	261	227	165	109
Iom [Pp/Tp]	\$\$	\$\$	\$\$	955	636	268	110	9	3	159	316	\$\$
Avm [200-Iom]	***	***	***	***	***	***	90	191	197	41	***	***
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	4489 / 231			2431 / 434			272 / 739			2024 / 501		
Iot [Pp/Tp]	1943			560			37			404		
Avs E[Avm<200]	***			***			477			***		
Lower ultrahyperarid [2]						Strong lower arid [1]						
Strong lower semiarid [1]						Strong upper semiarid [1]						

ALGAMITAS (ESP SEVILLA)

Latitude: 37°0'N Longitude: 5°9'W Altitude: 423 m

BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	18.80
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		32.71
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		29.70
+ Oceanic (20<CI<40)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		1.41
+ Subcontinental (1.1<CI<1.7)		
Rainfall Index of Lang (1925) [R=P/T]		58.05
+ Semiarid (60>R>40)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		35.62
+ Humid (60>Ia>30)		
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]		77.01
+ Subhumid (90>Q>50)		
I of Dantin & Revenga (1940) [DR=100*T/P]		1.72
+ Humid (2>DR>0)		
Aridity Index of UNEP [I=P/PE]		1.09
+ Humid (I>0.65)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P]		25.50
+ Very low (K<60)		

ALGAMITAS (ESP SEVILLA)

Latitude: 37°0'N Longitude: 5°9'W Altitude: 423 m

BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate

- + Climate
- + Region
- + Thermic type: 3. Macro-mesothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.96	0.90	0.57	0.43	0.20	0.08	0.01	0.00	0.13	0.22	0.63	0.98
T-E ratio	3.29	3.82	4.95	6.25	8.32	9.77	11.75	11.75	10.22	7.43	4.90	3.29
Precipitation-effectiveness: 50.98						Temperature-efficiency						85.73
Moisture Index [MI=100*(P-PE)/PE]												9.05
+ C2.Subhumid humid (0<MI<20)												
Index of dryness [DI=100*d/PE]												50.62
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]												59.67
+ Strong surplus (20<HI)												
Potential Evapotranspiration PE												845.13
+ Second mesothermic (712<PE<855)												

