

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

LA RINCONADA (ESP SEVILLA)

Altitude: 10 m.

Latitude: 37°29'N Longitude: 5°58'W

Temperature observation period.: 1967-1983 (17)

Rainfall observation period....: 1962-1990 (29)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	10.60	16.10	5.10	19.50	-0.20	68.1	20.17
Feb.	12.20	17.80	6.60	22.10	2.00	60.3	26.07
Mar.	13.40	19.20	7.70	24.30	4.00	42.6	37.78
Apr.	15.70	21.80	9.60	28.00	5.90	47.9	54.58
May.	19.00	26.40	11.60	33.60	7.60	22.6	87.09
Jun.	23.10	31.90	14.40	38.60	10.90	20.1	127.45
Jul.	27.40	36.80	18.00	42.10	14.80	1.6	178.38
Aug.	26.80	35.80	17.80	40.70	13.80	6.8	161.35
Sep.	23.60	31.80	15.40	37.00	10.20	16.1	111.18
Oct.	19.00	25.80	12.20	31.60	8.00	49.6	69.24
Nov.	14.50	20.70	8.20	25.20	3.50	66.4	36.24
Dec.	10.50	16.10	4.90	20.40	-0.60	67.4	19.12
Year	17.98	25.02	10.96	30.26	6.66	470	928.65

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	390
Compensated thermicity index.....(Itc):	390
Simple continentality index.....(Ic):	16.9
Diurnality index.....(Id):	18.8
Annual ombrothermic index.....(Io):	2.18
Monthly estival ombrothermic index.....(Ios1):	0.06
Bimonthly estival ombrothermic index.....(Ios2):	0.15
Threemonthly estival ombrothermic index.....(Ios3):	0.37
Fourmonthly estival ombrothermic index.....(Ios4):	0.53
Annual ombro-evaporation index.....(Ioe):	0.33
Annual positive temperature.....(Tp):	2158
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	773
Positive precipitation.....(Pp):	470

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

Latitudinal Belt...: Low eutemperate

Continentality.....: Oceanic - Low Euoceanic

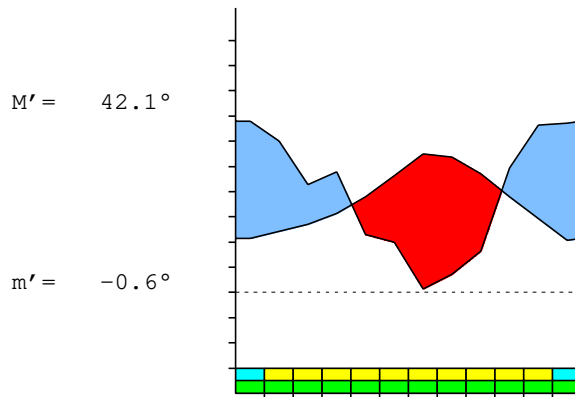
Bioclimate.....: MEDITERRANEAN PLUVISEASONAL-OCEANIC

Bioclimatic Belt...: UPPER THERMOMEDITERRANEAN LOW DRY

LA RINCONADA (ESP SEVILLA)

10 m

P= 470 37° 29'N 5° 58'W 17/29 y.
 T= 18.0° Ic= 16.9 Tp= 2158 Tn= 0
 m= 4.9° M= 16.1° Itc= 390 Io= 2.2



MEDITERRANEAN PLUVISEASONAL-OCEANIC
 UPPER THERMOMEDITERRANEAN LOW DRY

WATER INDEX CARD

LA RINCONADA (ESP SEVILLA)

Altitude: 10 m.

Latitude: 37° 29'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	10.6	20	68	22	100	20	0	26	13	2.3
Feb.	12.2	26	60	0	100	26	0	34	24	1.3
Mar.	13.4	38	43	0	100	38	0	5	14	0.1
Apr.	15.7	55	48	-7	93	55	0	0	7	-0.1
May.	19.0	87	23	-64	29	87	0	0	4	-0.7
Jun.	23.1	127	20	-29	0	49	79	0	2	-0.8
Jul.	27.4	178	2	0	0	2	177	0	1	-0.9
Aug.	26.8	161	7	0	0	7	155	0	0	-0.9
Sep.	23.6	111	16	0	0	16	95	0	0	-0.8
Oct.	19.0	69	50	0	0	50	20	0	0	-0.2
Nov.	14.5	36	66	30	30	36	0	0	0	0.8
Dec.	10.5	19	67	48	78	19	0	0	0	2.5
Year	18.0	929	470	*	*	404	525	65	65	*

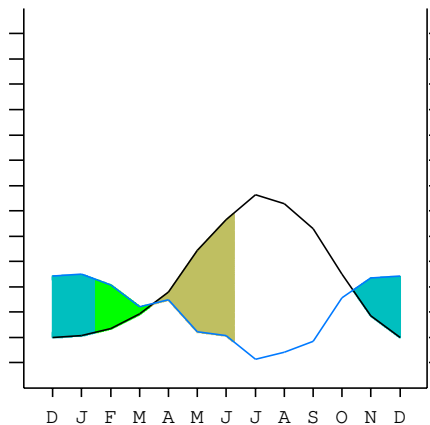
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

LA RINCONADA (ESP SEVILLA)

37°29'N 5°58'W 10 m 17/29 y.

T= 18.0 Ic= 16.9 MEDITERRANEAN PLUVISEASONAL-OCEANIC
 m= 4.9 Tp= 2158 UPPER THERMOMEDITERRANEAN
 M= 16.1 Tn= 0 LOW DRY
 M' = 42.1 Itc= 390
 m' = -0.6 Io= 2.2
 P= 470 mm
 PE= 929 mm

Imbibing	12 Oct.
Saturation	14 Jan.
Reserve Use	13 Mar.
Deficit	9 Jun.



LA RINCONADA (ESP SEVILLA)

Latitude: 37°29'N Longitude: 5°58'W Altitude: 10 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [B2b]
 + Type: B. Oceanic
 + Subtype: 2. Euoceanic
 + Variant: b. Low

Thermic types [B1.A3]
 + Latitudinal zone: B. Temperate
 + Latitudinal belt: 1. Low eutemperate
 + Thermic type: A. Warm
 + Thermic subtype: 3. Subwarm

Bioclimatic types [B8.2a.5b]
 + Macrobioclimate: B. MEDITERRANEAN
 + Bioclimate: 8. PLUVISEASONAL-OCEANIC
 + Bioclimatic variant ..:
 + Thermic type.....: 2. THERMOMEDITERRANEAN
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 5. DRY
 + Ombrothermic subtype : b. LOW
 Bioclimatic Classification: Mehc.Tme.Dry

LA RINCONADA (ESP SEVILLA)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 117
 Coldest semester of the year.....(Psw): 353
 Warmest four months period of the year.....(Pcm1): 45
 Following warmest four months period.....(Pcm2): 252
 Positive precipitation dryest 3 months.....(Ppd): 25
 Positive precipitation dryest 2 months.....(Ppd2): 8
 Positive precipitation dryest 1 month.....(Ppd1): 2
 Positive precipitation warmest 3 months.....(Pps): 25
 Positive precipitation warmest 2 months.....(Pps2): 8
 Positive precipitation warmest 1 month.....(Pps1): 2
 Positive precipitation coldest 3 months.....(Ppw): 196
 Positive precipitation coldest 2 months.....(Ppw2): 136
 Positive precipitation coldest 1 month.....(Ppw1): 67

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	195	113	28	132

Seasonal rainfall rhythms: W > F > P > S

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 27.4
 Average coldest month [T].....(Tmin): 10.5
 Maximum temp. warmest month [M].....(Tmmax): 36.8
 Minimum temp. coldest month [m].....(Tmmin): 4.9
 Absolute Max.temp. warmest month [M'].....(Tamax): 42.1
 Absolute Min.temp. coldest month [m'].....(Tamin): -0.6
 First warmest contrasted month [M].....(Tcmax): 36.8 (7)
 First coldest contrasted month [m].....(Tcmin): 18.0 (7)
 Estival temperature.....(Ts): 773
 Positive temperature dryest 3 months.....(Tpd): 778
 Positive temperature dryest 2 months.....(Tpd2): 542
 Positive temperature dryest 1 month.....(Tpd1): 274
 Positive temperature warmest 3 months.....(Tps): 778
 Positive temperature warmest 2 months.....(Tps2): 542
 Positive temperature warmest 1 month.....(Tps1): 274
 Positive temperature coldest 3 months.....(Tpw): 333
 Positive temperature coldest 2 months.....(Tpw2): 211
 Positive temperature coldest 1 month.....(Tpw1): 105

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

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.98
 Mediterranean index of July.[PE/P].....(Im1): 111.49
 Mediterranean index of July & August.....(Im2): 40.44
 Mediterranean index of June, July & August....(Im3): 16.39

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	674	681	603	426	479	226	201	16	68	161	496	664
Tp	105	106	122	134	157	190	231	274	268	236	190	145
Io (Iom)	6.42	6.42	4.94	3.18	3.05	1.19	0.87	0.06	0.25	0.68	2.61	4.58
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	1958 / 333			1131 / 481			285 / 773			1321 / 571		
Io (Iot)	5.880			2.351			0.369			2.313		
Semesters	December-May						June-November					
Pp(x10)/Tp	3089 / 814						1606 / 1344					
Io (Iosm)	3.795						1.195					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 4695/2158=2.18 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	674	681	603	426	479	226	201	16	68	161	496	664
Tp [T*10]	105	106	122	134	157	190	231	274	268	236	190	145
Iom [Pp/Tp]	642	642	494	318	305	119	87	6	25	68	261	458
Avm [200-Iom]	***	***	***	***	***	81	113	194	175	132	***	***
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	1958 / 333			1131 / 481			285 / 773			1321 / 571		
Iot [Pp/Tp]	588			235			37			231		
Avs E[Avm<200]	***			***			482			***		
Lower ultrahyperarid [1]							Lower hyperarid [1]					
Upper hyperarid [1]							Weak lower arid [1]					
Weak upper arid [1]							Strong lower semiarid [1]					

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	16.90
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		26.81
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		24.98
+ Oceanic (20<CI<40)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		1.25
+ Subcontinental (1.1<CI<1.7)		
Rainfall Index of Lang (1925) [R=P/T]		26.11
+ Steppic (40>R>0)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		16.78
+ Semiarid -mediterranean- (20>Ia>15)		
I of Emberger (1930) [Q=100*P/(Tmmax ² -Tmmin ²)]		35.29
+ Semiarid (50>Q>30)		
I of Dantin & Revenga (1940) [DR=100*T/P]		3.83
+ Arid (6>DR>3)		
Aridity Index of UNEP [I=P/PE]		0.51
+ Subhumid - dry (0.65>I>0.5)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P]		9.88
+ Very low (K<60)		

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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	0.36	0.30	0.19	0.21	0.08	0.06	0.00	0.02	0.05	0.20	0.31	0.35
T-E ratio	4.77	5.49	6.03	7.06	8.55	10.40	12.33	12.06	10.62	8.55	6.52	4.72
Precipitation-effectiveness: 21.29						Temperature-efficiency						97.11
Moisture Index [MI=100*(P-PE)/PE]												-49.44
+ D.Semiarid (-66.7<MI<-33.3)												
Index of dryness [DI=100*d/PE]												56.48
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]												7.04
+ No surplus (0<HI<10)												
Potential Evapotranspiration PE												928.65
+ Third mesothermic (855<PE<997)												

