

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

CAZALEGAS (ESP TOLEDO)

Altitude: 440 m.

Latitude: 40°1'N Longitude: 4°40'W

Temperature observation period.: 1962-1970 (9)

Rainfall observation period....: 1962-1970 (9)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	7.40	12.10	2.80	16.40	-2.00	77.0	14.58
Feb.	8.10	12.90	3.30	17.00	-1.60	105.0	16.66
Mar.	10.80	16.30	5.40	21.40	0.10	54.0	32.82
Apr.	13.80	19.70	7.80	26.40	2.10	38.0	52.43
May.	18.40	25.10	11.80	32.10	6.40	32.0	92.98
Jun.	21.90	29.10	14.70	36.90	9.60	29.0	123.98
Jul.	25.50	33.50	17.50	37.60	13.50	7.0	160.84
Aug.	24.20	32.60	15.70	37.00	12.00	10.0	137.40
Sep.	21.30	28.60	14.00	34.10	9.70	41.0	98.65
Oct.	16.60	22.80	10.40	28.30	4.80	50.0	61.01
Nov.	10.10	14.80	5.40	20.80	0.10	74.0	23.75
Dec.	6.10	11.00	1.20	14.90	-3.80	36.0	10.31
Year	15.35	21.54	9.17	26.91	4.24	553	825.40

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	276
Compensated thermicity index.....(Itc):	283
Simple continentality index.....(Ic):	19.4
Diurnality index.....(Id):	16.9
Annual ombrothermic index.....(Io):	3.00
Monthly estival ombrothermic index.....(Ios1):	0.27
Bimonthly estival ombrothermic index.....(Ios2):	0.34
Three monthly estival ombrothermic index.....(Ios3):	0.64
Four monthly estival ombrothermic index.....(Ios4):	0.87
Annual ombro-evaporation index.....(Ioe):	0.44
Annual positive temperature.....(Tp):	1842
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	716
Positive precipitation.....(Pp):	553

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

Latitudinal Belt...: Low eutemperate

Continentality.....: Oceanic - High Semicontinental

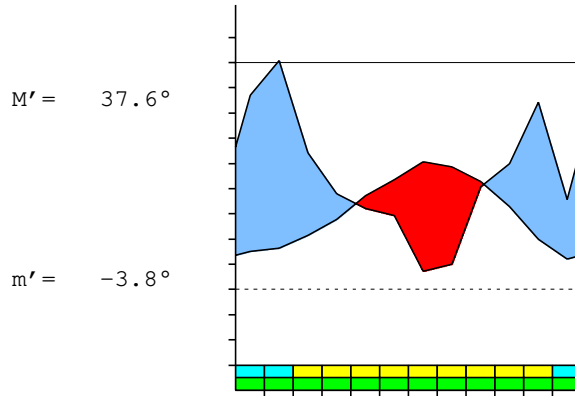
Bioclimate.....: MEDITERRANEAN PLUVISEASONAL-OCEANIC

Bioclimatic Belt...: UPPER MESOMEDITERRANEAN UPPER DRY

CAZALEGAS (ESP TOLEDO)

440 m

P= 553 40° 1'N 4° 40'W 9/9 y.
 T= 15.4° Ic= 19.4 Tp= 1842 Tn= 0
 m= 1.2° M= 11.0° Itc= 283 Io= 3.0



MEDITERRANEAN PLUVISEASONAL-OCEANIC
 UPPER MESOMEDITERRANEAN UPPER DRY

WATER INDEX CARD CAZALEGAS (ESP TOLEDO)
 Altitude: 440 m. Latitude: 40° 1'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	7.4	15	77	24	100	15	0	38	19	4.2
Feb.	8.1	17	105	0	100	17	0	88	54	5.3
Mar.	10.8	33	54	0	100	33	0	21	37	0.6
Apr.	13.8	52	38	-14	86	52	0	0	19	-0.2
May.	18.4	93	32	-61	25	93	0	0	9	-0.6
Jun.	21.9	124	29	-25	0	54	70	0	5	-0.7
Jul.	25.5	161	7	0	0	7	154	0	2	-0.9
Aug.	24.2	137	10	0	0	10	127	0	1	-0.9
Sep.	21.3	99	41	0	0	41	58	0	1	-0.5
Oct.	16.6	61	50	0	0	50	11	0	0	-0.1
Nov.	10.1	24	74	50	50	24	0	0	0	2.1
Dec.	6.1	10	36	26	76	10	0	0	0	2.4
Year	15.4	825	553	*	*	405	420	148	148	*

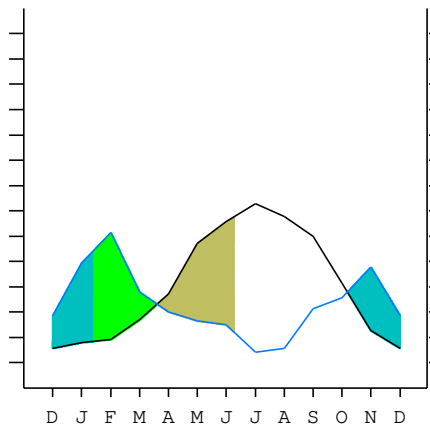
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

CAZALEGAS (ESP TOLEDO)

40°1'N 4°40'W 440 m 9/9 y.

T= 15.4 Ic= 19.4 MEDITERRANEAN PLUVISEASONAL-OCEANIC
 m= 1.2 Tp= 1842 UPPER MESOMEDITERRANEAN
 M= 11.0 Tn= 0 UPPER DRY
 M' = 37.6 Itc= 283
 m' = -3.8 Io= 3.0
 P= 553 mm ———
 PE= 825 mm ———

Imbibing	6 Oct.
Saturation	12 Jan.
Reserve Use	18 Mar.
Deficit	8 Jun.



CAZALEGAS (ESP TOLEDO)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [B1b]
 + Type: B. Oceanic
 + Subtype: 1. Semicontinental
 + Variant: b. High

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

Bioclimatic types [B8.3a.5a]
 + Macrobioclimate: B. MEDITERRANEAN
 + Bioclimate: 8. PLUVISEASONAL-OCEANIC
 + Bioclimatic variant ..:
 + Thermic type.....: 3. MESOMEDITERRANEAN
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 5. DRY
 + Ombrothermic subtype : a. UPPER
 Bioclimatic Classification: Mehc.Mme.Dry

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 169
 Coldest semester of the year.....(Psw): 384
 Warmest four months period of the year.....(Pcm1): 87
 Following warmest four months period.....(Pcm2): 237
 Positive precipitation dryest 3 months.....(Ppd): 46
 Positive precipitation dryest 2 months.....(Ppd2): 17
 Positive precipitation dryest 1 month.....(Ppd1): 7
 Positive precipitation warmest 3 months.....(Pps): 46
 Positive precipitation warmest 2 months.....(Pps2): 17
 Positive precipitation warmest 1 month.....(Pps1): 7
 Positive precipitation coldest 3 months.....(Ppw): 218
 Positive precipitation coldest 2 months.....(Ppw2): 113
 Positive precipitation coldest 1 month.....(Ppw1): 36

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	218	124	46	165

Seasonal rainfall rhythms: W > F > P > S

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 25.5
 Average coldest month [T].....(Tmin): 6.1
 Maximum temp. warmest month [M].....(Tmmax): 33.5
 Minimum temp. coldest month [m].....(Tmmin): 1.2
 Absolute Max.temp. warmest month [M'].....(Tamax): 37.6
 Absolute Min.temp. coldest month [m'].....(Tamin): -3.8
 First warmest contrasted month [M].....(Tcmax): 32.6 (8)
 First coldest contrasted month [m].....(Tcmin): 15.7 (8)
 Estival temperature.....(Ts): 716
 Positive temperature dryest 3 months.....(Tpd): 716
 Positive temperature dryest 2 months.....(Tpd2): 497
 Positive temperature dryest 1 month.....(Tpd1): 255
 Positive temperature warmest 3 months.....(Tps): 716
 Positive temperature warmest 2 months.....(Tps2): 497
 Positive temperature warmest 1 month.....(Tps1): 255
 Positive temperature coldest 3 months.....(Tpw): 216
 Positive temperature coldest 2 months.....(Tpw2): 135
 Positive temperature coldest 1 month.....(Tpw1): 61

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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
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	

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.49
 Mediterranean index of July.[PE/P].....(Im1): 22.98
 Mediterranean index of July & August.....(Im2): 17.54
 Mediterranean index of June, July & August....(Im3): 9.18

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	360	770	1050	540	380	320	290	70	100	410	500	740
Tp	61	74	81	108	138	184	219	255	242	213	166	101
Io (Iom)	5.90	10.4	13.0	5.00	2.75	1.74	1.32	0.27	0.41	1.92	3.01	7.33
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	2180 / 216			1240 / 430			460 / 716			1650 / 480		
Io (Iot)	10.09			2.884			0.642			3.438		
Semesters	December-May						June-November					
Pp(x10)/Tp	3420 / 646						2110 / 1196					
Io (Iosm)	5.294						1.764					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 5530/1842=3.00 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	360	770	1050	540	380	320	290	70	100	410	500	740
Tp [T*10]	61	74	81	108	138	184	219	255	242	213	166	101
Iom [Pp/Tp]	590	\$\$	\$\$	500	275	174	132	27	41	192	301	733
Avm [200-Iom]	***	***	***	***	***	26	68	173	159	8	***	***
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	2180 / 216			1240 / 430			460 / 716			1650 / 480		
Iot [Pp/Tp]	1009			288			64			344		
Avs E[Avm<200]	***			***			399			***		
Lower hyperarid [1]						Strong lower arid [1]						
Weak lower arid [1]						Weak lower semiarid [1]						
Weak upper semiarid [2]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	19.40
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		30.89
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		29.04
+ Oceanic (20<CI<40)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		1.35
+ Subcontinental (1.1<CI<1.7)		
Rainfall Index of Lang (1925) [R=P/T]		36.03
+ Steppic (40>R>0)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		21.81
+ Subhumid (30>Ia>20)		
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]		49.34
+ Semiarid (50>Q>30)		
I of Dantin & Revenga (1940) [DR=100*T/P]		2.78
+ Semiarid (3>DR>2)		
Aridity Index of UNEP [I=P/PE]		0.67
+ Humid (I>0.65)		
Potential Erosion I of Fournier (1960) [K=Pi ² /P]		19.94
+ 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	0.46	0.63	0.27	0.17	0.12	0.10	0.02	0.03	0.15	0.21	0.40	0.21
T-E ratio	3.33	3.65	4.86	6.21	8.28	9.85	11.48	10.89	9.58	7.47	4.55	2.74
Precipitation-effectiveness: 27.62						Temperature-efficiency						82.89
Moisture Index [MI=100*(P-PE)/PE]												-33.00
+ C1.Subhumid dry (-33.3<MI<0)												
Index of dryness [DI=100*d/PE]												50.91
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]												17.91
+ Moderate surplus (10<HI<20)												
Potential Evapotranspiration PE												825.40
+ Second mesothermic (712<PE<855)												

