

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

TOLOX PECHO VENUS (ESP MALAGA)

Altitude: 620 m.

Latitude: 36°41'N Longitude: 4°55'W

Temperature observation period.: 1967-1985 (19)

Rainfall observation period....: 1951-1985 (35)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	14.20	19.70	8.60	26.60	3.90	136.7	28.45
Feb.	13.90	19.60	8.30	26.90	4.40	127.6	26.80
Mar.	14.70	20.00	9.50	27.80	5.60	138.1	36.84
Apr.	17.10	23.40	10.90	30.50	6.70	69.8	55.34
May.	20.40	27.10	13.70	34.20	9.30	48.1	91.37
Jun.	24.50	31.50	17.50	38.40	12.90	24.1	139.24
Jul.	28.70	35.90	21.60	41.60	17.90	0.2	191.39
Aug.	29.60	36.00	23.30	41.10	19.50	3.6	187.57
Sep.	26.90	33.80	20.00	38.70	15.40	28.8	142.86
Oct.	22.30	28.30	16.30	34.60	11.40	87.4	88.81
Nov.	17.20	22.90	11.40	30.40	7.90	150.1	43.33
Dec.	13.60	18.90	8.30	27.10	3.80	170.8	24.91
Year	20.26	26.43	14.12	33.16	9.89	985	1056.9

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	475
Compensated thermicity index.....(Itc):	475
Simple continentality index.....(Ic):	16.0
Diurnality index.....(Id):	14.3
Annual ombrothermic index.....(Io):	4.05
Monthly estival ombrothermic index.....(Ios1):	0.01
Bimonthly estival ombrothermic index.....(Ios2):	0.07
Threemonthly estival ombrothermic index.....(Ios3):	0.34
Fourmonthly estival ombrothermic index.....(Ios4):	0.74
Annual ombro-evaporation index.....(Ioe):	0.24
Annual positive temperature.....(Tp):	2431
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	828
Positive precipitation.....(Pp):	985

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	6	2	1	3	0

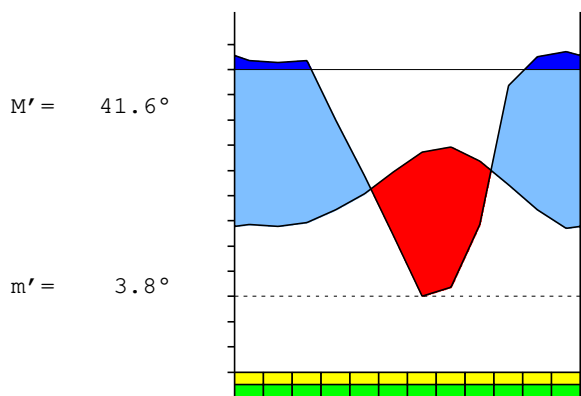
Latitudinal Belt...: Low eutemperate

Continentalty.....: Oceanic - Low Euoceanic

Bioclimate.....: MEDITERRANEAN PLUVISEASONAL-OCEANIC

Bioclimatic Belt...: UPPER INFRAMEDITERRANEAN LOW SUBHUMID

TOLOX PECHO VENUS (ESP MALAGA) 620 m
 P= 985 36° 41'N 4° 55'W 19/35 y.
 T= 20.3° Ic= 16.0 Tp= 2431 Tn= 0
 m= 8.3° M= 18.9° Itc= 475 Io= 4.1



MEDITERRANEAN PLUVISEASONAL-OCEANIC
 UPPER INFRAMEDITERRANEAN LOW SUBHUMID

WATER INDEX CARD TOLOX PECHO VENUS (ESP MALAGA)
 Altitude: 620 m. Latitude: 36° 41'N

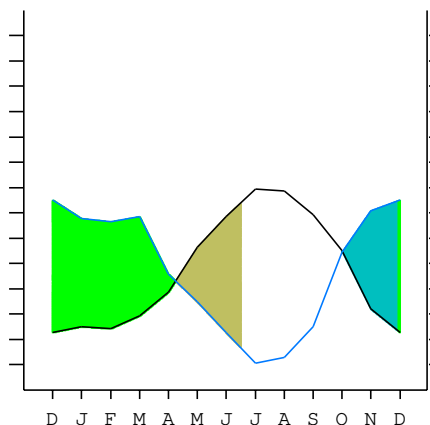
(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	14.2	28	137	0	100	28	0	108	92	3.8
Feb.	13.9	27	128	0	100	27	0	101	96	3.7
Mar.	14.7	37	138	0	100	37	0	101	99	2.7
Apr.	17.1	55	70	0	100	55	0	14	57	0.2
May.	20.4	91	48	-43	57	91	0	0	28	-0.4
Jun.	24.5	139	24	-57	0	81	58	0	14	-0.8
Jul.	28.7	191	0	0	0	0	191	0	7	-0.9
Aug.	29.6	188	4	0	0	4	184	0	4	-0.9
Sep.	26.9	143	29	0	0	29	114	0	2	-0.7
Oct.	22.3	89	87	0	0	87	1	0	1	0.0
Nov.	17.2	43	150	100	100	43	0	7	4	2.4
Dec.	13.6	25	171	0	100	25	0	146	75	5.8
Year	20.3	1057	985	*	*	508	549	477	477	*

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

TOLOX PECHO VENUS (ESP MALAGA) 36°41'N 4°55'W 620 m 19/35 y.

T= 20.3 Ic= 16.0 MEDITERRANEAN PLUVISEASONAL-OCEANIC
 m= 8.3 Tp= 2431 UPPER INFRAMEDITERRANEAN
 M= 18.9 Tn= 0 LOW SUBHUMID
 M' = 41.6 Itc= 475
 m' = 3.8 Io= 4.1
 P= 985 mm —
 PE= 1057 mm —

Imbibing	1 Oct.
Saturation	29 Nov.
Reserve Use	8 Apr.
Deficit	15 Jun.



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

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

Thermic types [B1.A2]
 + Latitudinal zone: B. Temperate
 + Latitudinal belt: 1. Low eutemperate
 + Thermic type: A. Warm
 + Thermic subtype: 2. Warm

Bioclimatic types [B8.1a.6b]
 + Macrobioclimate: B. MEDITERRANEAN
 + Bioclimate: 8. PLUVISEASONAL-OCEANIC
 + Bioclimatic variant ..:
 + Thermic type.....: 1. INFRAMEDITERRANEAN
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : b. LOW

Bioclimatic Classification: Mehc.Ime.Shu

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 192
 Coldest semester of the year.....(Psw): 793
 Warmest four months period of the year.....(Pcm1): 57
 Following warmest four months period.....(Pcm2): 545
 Positive precipitation dryest 3 months.....(Ppd): 28
 Positive precipitation dryest 2 months.....(Ppd2): 4
 Positive precipitation dryest 1 month.....(Ppd1): 0
 Positive precipitation warmest 3 months.....(Pps): 33
 Positive precipitation warmest 2 months.....(Pps2): 4
 Positive precipitation warmest 1 month.....(Pps1): 4
 Positive precipitation coldest 3 months.....(Ppw): 435
 Positive precipitation coldest 2 months.....(Ppw2): 308
 Positive precipitation coldest 1 month.....(Ppw1): 171

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	435	256	27	266

Seasonal rainfall rhythms: W > F > P > S

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 29.6
 Average coldest month [T].....(Tmin): 13.6
 Maximum temp. warmest month [M].....(Tmmax): 36.0
 Minimum temp. coldest month [m].....(Tmmin): 8.3
 Absolute Max.temp. warmest month [M'].....(Tamax): 41.6
 Absolute Min.temp. coldest month [m'].....(Tamin): 3.8
 First warmest contrasted month [M].....(Tcmax): 35.9 (7)
 First coldest contrasted month [m].....(Tcmin): 21.6 (7)
 Estival temperature.....(Ts): 828
 Positive temperature dryest 3 months.....(Tpd): 828
 Positive temperature dryest 2 months.....(Tpd2): 583
 Positive temperature dryest 1 month.....(Tpd1): 287
 Positive temperature warmest 3 months.....(Tps): 852
 Positive temperature warmest 2 months.....(Tps2): 583
 Positive temperature warmest 1 month.....(Tps1): 296
 Positive temperature coldest 3 months.....(Tpw): 417
 Positive temperature coldest 2 months.....(Tpw2): 278
 Positive temperature coldest 1 month.....(Tpw1): 136

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

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.07
 Mediterranean index of July.[PE/P].....(Im1): 956.93
 Mediterranean index of July & August.....(Im2): 99.72
 Mediterranean index of June, July & August....(Im3): 18.57

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	1708	1367	1276	1381	698	481	241	2	36	288	874	1501
Tp	136	142	139	147	171	204	245	287	296	269	223	172
Io (Iom)	12.6	9.63	9.18	9.39	4.08	2.36	0.98	0.01	0.12	1.07	3.92	8.73
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	4351 / 417			2560 / 522			279 / 828			2663 / 664		
Io (Iot)	10.43			4.904			0.337			4.011		
Semesters	December-May						June-November					
Pp(x10)/Tp	6911 / 939						2942 / 1492					
Io (Iosm)	7.360						1.972					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 9853/2431=4.05 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1708	1367	1276	1381	698	481	241	2	36	288	874	1501
Tp [T*10]	136	142	139	147	171	204	245	287	296	269	223	172
Iom [Pp/Tp]	\$\$	963	918	939	408	236	98	1	12	107	392	873
Avm [200-Iom]	***	***	***	***	***	***	102	199	188	93	***	***
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	4351 / 417			2560 / 522			279 / 828			2663 / 664		
Iot [Pp/Tp]	1043			490			34			401		
Avs E[Avm<200]	***			***			489			***		
Lower ultrahyperarid [1]							Upper ultrahyperarid [1]					
Upper hyperarid [1]							Weak upper arid [1]					
Strong lower semiarid [1]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp): 16.00
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]	25.13
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]	23.38
+ Oceanic (20<CI<40)	
CI of Currey (1974) [CI=Sp/(1+Lat/3)]	1.21
+ Subcontinental (1.1<CI<1.7)	
Rainfall Index of Lang (1925) [R=P/T]	48.64
+ Semiarid (60>R>40)	
Aridity Index of Martonne (1926) [Ia=P/(T+10)]	32.56
+ Humid (60>Ia>30)	
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]	80.29
+ Subhumid (90>Q>50)	
I of Dantin & Revenga (1940) [DR=100*T/P]	2.06
+ Semiarid (3>DR>2)	
Aridity Index of UNEP [I=P/PE]	0.93
+ Humid (I>0.65)	
Potential Erosion I of Fournier (1960) [K=Pi ² /P]	29.61
+ 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	0.69	0.65	0.69	0.30	0.18	0.08	0.00	0.01	0.09	0.34	0.70	0.90
T-E ratio	6.39	6.25	6.61	7.70	9.18	11.02	12.92	13.32	12.10	10.03	7.74	6.12
Precipitation-effectiveness: 46.31						Temperature-efficiency						109.40
Moisture Index [MI=100*(P-PE)/PE]												-6.77
+ C1.Subhumid dry (-33.3<MI<0)												
Index of dryness [DI=100*d/PE]												51.94
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]												45.17
+ Strong surplus (20<HI)												
Potential Evapotranspiration PE												1056.90
+ Forth mesothermic (997<PE<1440)												

