

# Phytosociological Research Center

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## Worldwide Bioclimatic Classification System

Prof.Dr. Salvador Rivas-Martinez

(Adapted to Synoptical Table 30/08/2017)

PEDRAZA DE ALBA (ESP SALAMANCA)

Altitude: 900 m.

Latitude: 40°44'N Longitude: 5°22'W

Temperature observation period.: 1966-1970 (5)

Rainfall observation period....: 1966-1970 (5)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	6.80	11.00	2.60	18.40	-4.00	34.0	17.94
Feb.	6.20	10.30	2.20	17.20	-3.60	35.0	15.84
Mar.	8.30	13.10	3.60	20.90	-2.20	44.0	29.12
Apr.	10.80	16.20	5.30	24.60	-0.30	34.0	44.75
May.	13.50	19.60	7.40	29.00	1.00	36.0	68.08
Jun.	18.40	26.20	10.60	36.60	4.50	28.0	104.17
Jul.	23.00	32.50	13.60	38.20	9.00	15.0	141.83
Aug.	20.60	30.50	10.80	37.60	7.90	11.0	114.55
Sep.	18.70	26.20	11.20	33.60	5.10	31.0	87.87
Oct.	14.90	22.10	7.60	29.20	0.20	40.0	59.72
Nov.	9.00	13.60	4.50	21.80	-1.40	52.0	25.86
Dec.	4.10	7.70	0.50	15.50	-4.60	31.0	8.74
Year	12.86	19.08	6.66	26.88	0.97	391	718.47

### BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	211
Compensated thermicity index.....(Itc):	215
Simple continentality index.....(Ic):	18.9
Diurnality index.....(Id):	19.7
Annual ombrothermic index.....(Io):	2.53
Monthly estival ombrothermic index.....(Ios1):	0.53
Bimonthly estival ombrothermic index.....(Ios2):	0.60
Three monthly estival ombrothermic index.....(Ios3):	0.87
Four monthly estival ombrothermic index.....(Ios4):	1.19
Annual ombro-evaporation index.....(Ioe):	0.70
Annual positive temperature.....(Tp):	1543
Annual negative temperature.....(Tn):	0
Estival temperature.....(Ts):	620
Positive precipitation.....(Pp):	391

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

Latitudinal Belt...: Low eutemperate

Continentality.....: Oceanic - Low Semicontinental

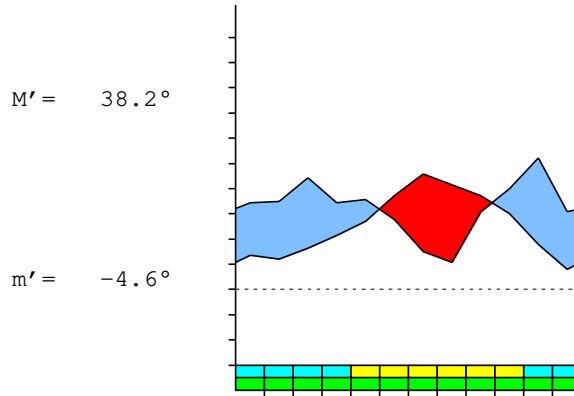
Bioclimate.....: MEDITERRANEAN PLUVISEASONAL-OCEANIC

Bioclimatic Belt...: LOW SUPRAMEDITERRANEAN LOW DRY

PEDRAZA DE ALBA (ESP SALAMANCA)

900 m

P= 391      40° 44'N      5° 22'W      5/5 y.  
 T= 12.9°    Ic= 18.9      Tp= 1543      Tn= 0  
 m= 0.5°      M= 7.7°      Itc= 215      Io= 2.5



MEDITERRANEAN PLUVISEASONAL-OCEANIC  
 LOW SUPRAMEDITERRANEAN LOW DRY

WATER INDEX CARD      PEDRAZA DE ALBA (ESP SALAMANCA)  
 Altitude: 900 m.      Latitude: 40° 44'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	6.8	18	34	16	64	18	0	0	0	0.8
Feb.	6.2	16	35	19	84	16	0	0	0	1.2
Mar.	8.3	29	44	15	99	29	0	0	0	0.5
Apr.	10.8	45	34	-11	88	45	0	0	0	-0.2
May.	13.5	68	36	-32	56	68	0	0	0	-0.4
Jun.	18.4	104	28	-56	0	84	20	0	0	-0.7
Jul.	23.0	142	15	0	0	15	127	0	0	-0.8
Aug.	20.6	115	11	0	0	11	104	0	0	-0.9
Sep.	18.7	88	31	0	0	31	57	0	0	-0.6
Oct.	14.9	60	40	0	0	40	20	0	0	-0.3
Nov.	9.0	26	52	26	26	26	0	0	0	1.0
Dec.	4.1	9	31	22	48	9	0	0	0	2.5
Year	12.9	718	391	*	*	391	327	0	0	*

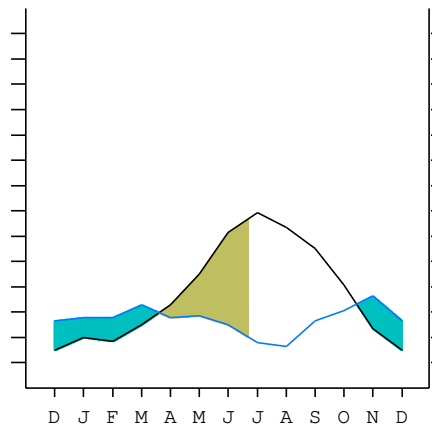
R = Reserve    VR = Variation of the reserve    RE = Real evapotranspiration  
 DR = Drainage    HC = Humidity coefficient    DF = Deficit    SP = Superavit

PEDRAZA DE ALBA (ESP SALAMANCA)

40°44'N    5°22'W    900 m    5/5 y.

T= 12.9    Ic= 18.9    MEDITERRANEAN PLUVISEASONAL-OCEANIC  
 m= 0.5    Tp= 1543    LOW SUPRAMEDITERRANEAN  
 M= 7.7    Tn= 0    LOW DRY  
 M' = 38.2    Itc= 215  
 m' = -4.6    Io= 2.5  
 P= 391    mm    ———  
 PE= 718    mm    ———

Imbibing	13 Oct.
Saturation	18 Mar.
Reserve Use	22 Jun.
Deficit	



PEDRAZA DE ALBA (ESP SALAMANCA)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [B1a]  
 + Type .....: B. Oceanic  
 + Subtype .....: 1. Semicontinental  
 + Variant .....: a. Low  
 Thermic types [B1.B4]  
 + Latitudinal zone .....: B. Temperate  
 + Latitudinal belt .....: 1. Low eutemperate  
 + Thermic type .....: B. Temperate  
 + Thermic subtype .....: 4. Temperate  
 Bioclimatic types [B8.4b.5b]  
 + Macrobioclimate .....: B. MEDITERRANEAN  
 + Bioclimate .....: 8. PLUVISEASONAL-OCEANIC  
 + Bioclimatic variant ..:  
 + Thermic type.....: 4. SUPRAMEDITERRANEAN  
 + Thermic subtype.....: b. LOW  
 + Ombrothermic type ...: 5. DRY  
 + Ombrothermic subtype : b. LOW  
 Bioclimatic Classification .....: Mehc.Sme.Dry

PEDRAZA DE ALBA (ESP SALAMANCA)

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 161  
 Coldest semester of the year.....(Psw): 230  
 Warmest four months period of the year.....(Pcm1): 85  
 Following warmest four months period.....(Pcm2): 157  
 Positive precipitation dryest 3 months.....(Ppd): 54  
 Positive precipitation dryest 2 months.....(Ppd2): 26  
 Positive precipitation dryest 1 month.....(Ppd1): 11  
 Positive precipitation warmest 3 months.....(Pps): 57  
 Positive precipitation warmest 2 months.....(Pps2): 26  
 Positive precipitation warmest 1 month.....(Pps1): 15  
 Positive precipitation coldest 3 months.....(Ppw): 100  
 Positive precipitation coldest 2 months.....(Ppw2): 65  
 Positive precipitation coldest 1 month.....(Ppw1): 31

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	100	114	54	123

Seasonal rainfall rhythms: F > P > W > S

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 23.0  
 Average coldest month [T].....(Tmin): 4.1  
 Maximum temp. warmest month [M].....(Tmmax): 32.5  
 Minimum temp. coldest month [m].....(Tmmin): 0.5  
 Absolute Max.temp. warmest month [M'].....(Tamax): 38.2  
 Absolute Min.temp. coldest month [m'].....(Tamin): -4.6  
 First warmest contrasted month [M].....(Tcmax): 30.5 (8)  
 First coldest contrasted month [m].....(Tcmin): 10.8 (8)  
 Estival temperature.....(Ts): 620  
 Positive temperature dryest 3 months.....(Tpd): 620  
 Positive temperature dryest 2 months.....(Tpd2): 436  
 Positive temperature dryest 1 month.....(Tpd1): 206  
 Positive temperature warmest 3 months.....(Tps): 623  
 Positive temperature warmest 2 months.....(Tps2): 436  
 Positive temperature warmest 1 month.....(Tps1): 230  
 Positive temperature coldest 3 months.....(Tpw): 171  
 Positive temperature coldest 2 months.....(Tpw2): 109  
 Positive temperature coldest 1 month.....(Tpw1): 41

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

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OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 1.84  
 Mediterranean index of July.[PE/P].....(Im1): 9.46  
 Mediterranean index of July & August.....(Im2): 9.86  
 Mediterranean index of June, July & August....(Im3): 6.68

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	310	340	350	440	340	360	280	150	110	310	400	520
Tp	41	68	62	83	108	135	184	230	206	187	149	90
Io (Iom)	7.56	5.00	5.65	5.30	3.15	2.67	1.52	0.65	0.53	1.66	2.68	5.78
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	1000 / 171			1140 / 326			540 / 620			1230 / 426		
Io (Iot)	5.848			3.497			0.871			2.887		
Semesters	December-May						June-November					
Pp(x10)/Tp	2140 / 497						1770 / 1046					
Io (Iosm)	4.306						1.692					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 3910/1543=2.53 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	310	340	350	440	340	360	280	150	110	310	400	520
Tp [T*10]	41	68	62	83	108	135	184	230	206	187	149	90
Iom [Pp/Tp]	756	500	565	530	315	267	152	65	53	166	268	578
Avm [200-Iom]	***	***	***	***	***	***	48	135	147	34	***	***
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	1000 / 171			1140 / 326			540 / 620			1230 / 426		
Iot [Pp/Tp]	585			350			87			289		
Avs E[Avm<200]	***			***			329			***		
Weak lower arid [2]						Weak upper arid [1]						
Strong upper semiarid [2]												

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin] .....	(Sp): 18.90
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4] .....	28.84
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14] .....	27.50
+ Oceanic (20<CI<40)	
CI of Currey (1974) [CI=Sp/(1+Lat/3)] .....	1.30
+ Subcontinental (1.1<CI<1.7)	
Rainfall Index of Lang (1925) [R=P/T] .....	30.41
+ Steppic (40>R>0)	
Aridity Index of Martonne (1926) [Ia=P/(T+10)] .....	17.11
+ Semiarid -mediterranean- (20>Ia>15)	
I of Emberger (1930) [Q=100*P/(Tmmax <sup>2</sup> -Tmmmin <sup>2</sup> )] .....	37.03
+ Semiarid (50>Q>30)	
I of Dantin & Revenga (1940) [DR=100*T/P] .....	3.29
+ Arid (6>DR>3)	
Aridity Index of UNEP [I=P/PE] .....	0.54
+ Subhumid - dry (0.65>I>0.5)	
Potential Erosion I of Fournier (1960) [K=Pi <sup>2</sup> /P].....	6.92
+ Very low (K<60)	

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)  
 + Climate .....

- + Climate .....
- + Region .....
- + Thermic type: 4. Mesothermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.19	0.20	0.24	0.16	0.16	0.11	0.05	0.04	0.12	0.17	0.28	0.19
T-E ratio	3.06	2.79	3.74	4.86	6.07	8.28	10.35	9.27	8.42	6.70	4.05	1.84
Precipitation-effectiveness: 18.94						Temperature-efficiency .....						69.44
Moisture Index [MI=100*(P-PE)/PE] .....												-45.58
+ D.Semiarid (-66.7<MI<-33.3)												
Index of dryness [DI=100*d/PE] .....												45.57
+ Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE] .....												0.00
+ No surplus (0<HI<10)												
Potential Evapotranspiration PE .....												718.47
+ Second mesothermic (712<PE<855)												

