SPANISH REFERENCE DATAILS

Blanco, E., Casado, M., Costa, M. et al.(1997): Los bosques ibéricos. Una interpretación geobotánica.
The Iberian forests. A Geobotanical interpretation.

This systematic study of forest formations on the Iberian Peninsula was written by experts in the Peninsula vegetation, with specific interests in floristic and ecological aspects, palenology and dendochronology. Classification of the forest formations is based on ecologic-physionomic and floristic criteria and establishes an interpretation of the evolution of the plant distribution in response to environmental characteristics of the Iberian Peninsula such as climate, climate evolution, the subsurface and the relief.

León Llamazares, A. : Caracterización agroclimática de la provincia de Madrid. Ministerio de Agricultura, Pesca y Alimentación. Madrid, 1989.

Title: Agroclimatic characterization of Madrid Province

The edition contains tables of information on the agricultural products produced in the province of Madrid and their relationship to the bioclimatic typology of the winters, summers and moisture regimes. In the section on wine production, the text highlights the damaging influence of late frosts and the positive influence of dry summers.

Quiroga , S. and Iglesias, A.: Relación entre el clima y la productividad agraria: Diferencias regionales y entre cultivos.
http://www.infoagro.com/hortalizas/relacion_clima_cultivo.htm
The relationship between climate and agrarian productivity: Regional culture differences

This study is focussed on improving crop production in Spain. Climate is one of the most important factors that threatens productivity, particulary during droughts and frosts. Climate influence is based on the statistical analysis of average and accumulated temperature and precipitation data and is used in models specific to each crop and province. The most important weather phenomena in relation to vineyards are the winter and spring temperatures and the precipitation at harvest time.

Saz, M.: Temperaturas y precipitaciones en la mitad norte de España desde el siglo XV. Estudio dendroclimático. Publicaciones del Consejo de Protección de la Naturaleza de Aragón. Zaragoza, 2003.

Title: Temperatures and precipitation in the northern half of Spain as of the 15th century.

This climate study beginning in the 15th century is based on dendrochronologic reconstructions for the northern half of Spain. The period of reference for standardization is 1850-1950. Trimester studies of temperatures and precipitation were associated with designated periods in the centuries chosen and for three target areas: northwest Spain, the Duero River basin and the ridge region of the Cantabrian coast.

The author reveals that there were unusual periods of severe cold weather in the northern sector of the Duero basin from 1560 to the late 1570's. Average low temperatures ranged from -1º C to -0.4º C. A warming trend at the end of the century affected the entire area except the southern region which remained very cold.

Saz, M. and Creus, J. Evolución de las temperaturas en Villacarriedo (Cantabria) durante la Pequeña Edad de Hielo. In: García Codron,J.C et alt: El clima entre el mar y la montña. Asociación española de Climatología y Universidad de Cantabria. Serie A, nº4. Santander, 419-418 pp, 2004.

Title: Temperature evolution in Villacarriedo (Cantabria) during the Little Ice Age.

A study of the main characteristics of temperature evolution in northern Spain, near the Cantabrian coast, for periods identified using dendroclimatic techniques. The coldest phases appear in the 16th century, and show significant decreases in the second and third quarters. The average decrease during this time ranged from -0.5º C to -2º C.