

cosecha y acondicionamiento con etileno. Para firmeza, la tasa más rápida de ablandamiento se observó para frutos tratados con etileno al ambiente, en tanto que los conservados en refrigeración tardaron 24 h más para alcanzar dicho estado. El color de pulpa fue menos intenso para frutos mantenidos en refrigeración, inclusive con la aplicación de etileno. Por otro lado, los frutos tres cuartos mostraron mayor intensidad que aquellos cosechados en estado sazón. Respecto al contenido de sólidos solubles totales (SST), los valores más altos se observaron en los frutos testigo o en frutos aplicados con etileno al ambiente. Los frutos acondicionados con etileno bajo refrigeración mostraron menor contenido de SST. Se sugiere a los procesadores de mango congelado que cosechen en madurez tres cuartos y acondicionen el fruto con etileno a 100 ppm por 24 h en cuarto frío y no al ambiente como se hace tradicionalmente.

The climate of mango producing areas: a case study on three islands

Dario Scuderi, Piazza San Giovanni Decollato, 12, 90134 Palermo, Italy.

Mohsen Pourmohammad Shahavar, Viale delle Scienze, 18, Palermo, Italy.

Giovanni Marsella, Viale delle Scienze, 18, Palermo, Italy.

Vittorio Farina, Viale delle Scienze, 4, Palermo, Italy.

Maria Gloria Lobo Rodrigo, Finca Isamar, La Laguna, Tenerife, Spain.

Frederic Normand, Voie cannière, Bassin Plat, Saint Pierre, Reunion.

Cultivation of mango (*Mangifera indica* L.) spread in the last 30 years to wider latitudes than the species' native area. This raises numerous questions regarding the species adaptation capacity, physiology and productivity. We described the climate of three different mango producing areas located in distant islands: La Réunion (21°S, France), located in the Mascarene archipelago in the Indian ocean; Tenerife (28°N, Spain), in the Canary archipelago in the Atlantic Ocean; and Sicily (38°N, Italy), at the centre of the Mediterranean Sea. Air temperature, rainfall, evapotranspiration, solar radiation, wind speed and direction were collected from weather stations located as close as possible to experimental mango orchards for the period 2018-2022. The climate of each orchard was characterized and they were compared across the three islands. The orchards fell into micro-climatic areas that differed from each island's macro-climatic area as they are described in the literature. The three orchards differed greatly on the basis of several parameters. The absolute highest (43°C) and lowest (2.5°C) temperatures were recorded in Sicily. Temperatures showed little variability, both during the day and along the year, in La Réunion and in Tenerife, where the daily average temperatures ranged between 18°C and 27°C. Also the annual distributions of rainfall and potential evapotranspiration varied greatly: the cumulated pluviometric deficit was negative during half of the year in La Réunion, during two thirds of the year in Sicily, while it was constantly negative in Tenerife, which was characterized by a nearly arid climate. Rainfall and high temperatures occurred at different periods of the mango phenological cycle among the islands, probably affecting this cycle and the potential productivity. The results show that mango could be cultivated in a broad range of climatic conditions, if appropriate crop management is implemented to ensure sustainable fruit production.