Match Climates

Climate matching consists of selecting a location and then looking for locations elsewhere that have a climate that is similar. This function enables the user to compare the meteorological data from different places, with no reference to the preferences of a given species. It answers questions such as: Are the extreme minimum and maximum temperatures similar? Do the two locations have similar amounts of rainfall and similar seasonal rainfall patterns? A comparison of climates in different locations does however have implications for species. If the user knows that a given species occurs in given locations in Mexico, and is looking to import that species to Australia as a biocontrol agent, a Match Climates analysis can show whether the climate of the destination is similar to that of the area of collection of the species. If the analysis indicates that there is only a small area in Australia that has a similar climate to the Mexican locations that support populations of the species, there are high risks of failure of establishment by the species in Australia.

Another use of the Match Climates function is to provide a rough assessment of the risk of a pest establishing in a new location (country, continent), with implications for quarantine and pest risk analysis. The Match Climates analysis can be conducted with no knowledge of the species, except that it does occur in certain locations. Thus, if there are no biological data or distribution map of the species, the Match Climates analysis nonetheless enables the user to qualitatively assess the risk.

Match Climates Regional

The Match Climates Regional application is exactly the same as the Match Climates application, with the exception that a Location Selection (i.e., a set of locations) rather than a single location is specified as the "Home" location. The application's appearance in the Model Components window is exactly the same as that of the Match Climates application, and match options, climate change scenarios and irrigation can be set in the same way.