全球主要葡萄酒產區的氣候變遷
Climate Changes in Major Wine-producing Regions in the World

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摘　要

溫度和降水是酒葡萄的生長及葡萄酒品質的關鍵，酒葡萄主要分布在南北緯38-53度，年均溫10~14℃、年降水600~800毫米的地區。世界葡萄酒產區分成舊世界及新世界，前者包含法國、德國和義大利等歐洲國家，後者則為美國、南美洲國家和澳洲等國。本研究以1901-2019年東安格利亞大學氣候研究中心(CRU)地面長期觀測溫度與降水資料，分析世界主要葡萄酒產區的氣候變遷。初步發現葡萄酒產區的氣候與最適合的區間仍有差異，年均溫最高19.3℃、最低7.8℃；年降水最高1464毫米、最低135毫米。此外，舊世界和新世界國家的年均溫皆升高，但是舊世界國家上升更多；年降水量兩者皆是部分酒莊增加、部分減少，沒有明顯的差異。

關鍵字：葡萄酒、酒葡萄、氣候變遷、物候學

Abstract

Temperature and precipitation have a key impact on the growth of wine grapes and wine quality. Wine grapes are mainly distributed in areas with 38-53 degrees north and south latitudes, with an average annual temperature of 10 to 14℃ and an annual precipitation of 600 to 800 mm. The world's wine production is divided into the Old World and the New World. The former includes European countries such as France, Germany and Italy, while the latter includes the United States, South American countries and Australia. This study uses Climatic Research Unit (CRU) surface long-term observations of temperature and precipitation from 1901 to 2019 to analyze climate changes in the world's major wine-producing regions. It is discovered that the climate of the wine-producing area is still different from the most suitable range, with the highest average annual temperature being 19.3℃ and the lowest being 7.8℃; the highest annual precipitation being 1464 mm and the lowest being 135 mm. Furthermore, the annual average temperature of the old world and the new world countries both increased, but the old world countries increased more; the annual precipitation is both increased by part of the winery and decreased by part, and there is no obvious difference between the two.

Key words: wine, wine grape, climate change, phenology