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Nota di contenuto	 Introduction 2. Response of trees to CO2 increase 3. Nutrient value of fruits in response to eCO2 4. The effect of increasing temperature on phenology 5. Tree Phenology networks 6. Phenology of temperate fruit trees 7. Phenology of sub-tropical fruit trees 8. Phenology of tropical fruit trees 9. Climate change and chilling requirements 10. Precipitation 11. Ecophysiological adaptations and climate change 12. Biodiversity implications and the spread of diseases 13. Conclusion.
Sommario/riassunto	Global climate change is expected to produce increased carbon dioxide levels in the atmosphere, higher temperatures, aberrant precipitation patterns and a host of other climatic changes that would affect all life on this planet. This review article addresses the impact of climate change on fruit trees and the response of the trees to a changing environment. The response of fruit trees to increasing carbon dioxide levels, phenological changes occurring in the trees themselves due to

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increased temperature and the lower chilling hours especially in the temperate regions, ecophysiological adaptations of the trees to the changing climate, impact of aberrant precipitation, etc. are reviewed. There is very little data on the impact of rising CO2 levels on fruit tree performance or productivity including the temperate region. Based on a large number of observations on the phenology, there is reason to believe that the flowering and fruiting of most species have advanced by quite a few days, but with variations in different crops and on different continents. The chilling hours have also grown shorter in many regions, causing considerable reductions in yield for several species. In the tropics, there is very little work on fruit trees; however, the available data show that precipitation is a major factor regulating their phenology and yield. The ecophysiological adaptations vary from species to species, and there is a need to develop phenological models in order to estimate the impact of climate change on plant development in different regions of the world. More research is also called for to develop adaptation strategies to circumvent the negative impacts of climate change.