

氣候變遷對亞熱帶果樹之影響

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台灣地處熱帶、亞熱帶之交，山地多、氣候溫和、雨量充沛，適合各種果樹栽培。亞熱帶果樹種類以柑桔類、荔枝、龍眼、鳳梨番荔枝為主，另有百香果、枇杷、酪梨等。亞熱帶果樹栽培面積佔台灣果樹總面積 1/3 以上。對果樹產業發展具有舉足輕重之影響。近幾十年來，由於溫室效應、全球暖化、氣候變遷已影響台灣亞熱帶果樹之物候環境，如日照時數減少，溫度上升，包括夜溫、土壤溫度、極端溫度變化以及因溫度上升伴隨之氣候乾旱，降雨型態改變，氣候變遷影響亞熱帶果樹營養生長，花芽分化、開花、結果及果實品質。又因氣候變遷下，造成之果園生態環境變化，亦影響果樹病蟲害發生。台灣亞熱帶果樹產業為因應氣候變遷之衝擊，未來應加強研發、選育各種抗逆境與抗病力強之品種及砧木，並開發建立各種增強果樹健康抗逆境之栽培管理技術，以求台灣亞熱帶果樹之發展。

Impacts of Climate Change on the Subtropical Fruit in Taiwan

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Taiwan, a mountainous island with tropical and subtropical climate, is famous for diversified fruit production. There are many subtropical fruits such as citrus (*Citrus spp.*), lychee (*Litchi chinensis*), longan (*Euphoria longana*), loquat (*Eriobotrya japonica*), passion fruit (*Passiflora edulis*), atemoya (*Anona atemoya*) and avocado (*Persea americana*) had produced in Taiwan. The production area of subtropical fruits had occupied over one third of total fruit production area in Taiwan. In recent decades, due to greenhouse effect, the global warming and climate change had affected subtropical fruits production environments, these factors like sunshine hour has reduced, temperature has increased (include night temperature, soil temperature and extreme temperature), rainfall models also changed. These environmental factors change affected subtropical fruits tree growth and developments, the more vegetative growth of fruit trees and affected flower differentiation, anthesis, fruit setting and fruit quality. The orchard ecology also changed that affected pests and diseases occur of fruit trees. The impacts of climate change on subtropical fruit production, we should accelerate research and innovation to develop and select varieties these have environment stress-tolerance and diseases resistance, and production techniques for subtropical fruit sustainable to adapt climate change.