

椽果之產期調節

Forcing culture of mango in Taiwan



1. 傳統產期調節利用環刻及斷根方法
Conventional treatment by girdling and root-pruning
2. PP333抑制株(左)及無處理株(右)
Left, inhibited by PP333; right, check
3. 以Ethrel及CaCN₂催花(左)及無催花(右)
Left, flower forcing with Ethrel and CaCn; right, check
4. PP333處理株花穗短而密應慎防病蟲害
Short and densed inflorescences from PP333 treatment
5. PP333處理株結果(左)無處理株開花(右)
Left, PP333 treated tree in fruiting; right, check in flowering
6. 產期提早之果實較圖(2月)
Fruits of earlier harvest in February are short elliptical shape

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由於檬果之產期集中在5~7月間，在盛產期價格極為低廉，栽培者幾無利潤可言，欲紓解盛產期果賤傷農的困境，調節產期為一可行之方法。

本場於71年度開始探討植物生長調節劑對抑制檬果營養生長及促進花芽形成之效果。曾經試用Alar (B-9), CCC (Cycocel)及Ethrel (ethephon)等三種藥劑，處理結果對新梢抑制效果不穩定，尤其在夏季雨天較長的時段為甚。即使在相同藥劑處理中，有些植株抑制效果良好，有些則仍在抽新梢，而處理間差異也很大。以致多年試驗後仍無法獲得顯著的成效，必須尋求更有效的生長抑制劑。

本場於74年選用PP333在屏東鹽埔鄉處理在來種檬果，連續2年之試驗結果發現，以PP333之250倍或500倍稀釋液噴施葉面或灌注地面，可以使檬果提早於9月萌芽抽穗，2月上旬開始採收鮮果，較正常採收期提早3個月。本試驗已突破臺灣檬果產期調節之瓶頸，今後將繼續研究改進處理方式，使技術更臻於穩定，達成檬果產期調節推廣應用之目標。

The harvest season of mango in Taiwan is usually concentrated between May and July, and the overproduction may seriously depress the market price. The only resolution is to adjust the mango fruit maturity time ready for harvesting between February and May.

Three PGRs, Alar, CCC and Ethrel, had been used to inhibit the vegetative growth and to promote inflorescence initiation of mango trees since 1982. The results showed that the inhibition effect of these growth regulators to the trees was rather unstable, especially during the long period of rainy days in the summer. Uneven inhibition effects occurred in the trees of the same treatment, i.e. some were inhibited while some were sprouting new shoots. More effective chemicals to meet the demand of practical use is then explored.

In 1985, another growth inhibitor, PP333 (paclobutrazol, 25% a.i.) was used on the mango trees in Ping-Tung. The results of two years' test showed that foliar spray or soil drench with 250X or 500X of PP333 could effectively inhibit the vegetative growth. The trees spouted at mid-September and the fruits were harvested in time early February which was 3 months earlier than the normal harvesting.

(圖文由林嘉興、張林仁、林信山提供)