

- 122-129.
- Osborne, D. J. 1955.
Acceleration of abscission by factors produced by senescent leaves. *Nature*. 176: 1161-1163.
- Osborne, D. J. 1958.
The role of 2, 4, 5-T Butyl Ester in the control of leaf abscission in some tropical woody species. *Tropical Agriculture*. 35: 145-158.
- Osborne, D. J. and S. E. Moss. 1963.
Effect of kinetin on senescence and abscission in explant of *Phaseolus vulgaris*. *Nature*. 200: 1299-1301.
- Rubinstein, B. and A. C. Leopold. 1962.
Effects of amino acids on bean leaf-abscission. *Plant Physiol*. 37: 398-401.
- Rubinstein, B. and A. C. Leopold. 1963.
Analysis of the auxin control of bean leaf abscission. *Plant Physiol*. 38: 262-267.
- Rubinstein, B. A. C. Leopold. 1964.
The nature of leaf abscission. *Quart. Rev. Biol*. 39: 356-372.
- Sass, J. E. 1958.
Botanical Microtechnique. 3rd. Edition. The Iowa State University Press, Ames. Iowa.
- Steward, F. C. 1963.
The Control of growth in Plant cells. *Sci. Amer.* October: 104-113.
- Van Steveninck, R. F. M. 1957.
Factors affecting the abscission of reproductive organs in yellow lupins (*Lupinus luteus* L.) 1. The effect of different patterns of flower removal. *Jour. Exptl. Bot.* 8: 373-381.
- Van Steveninck, R. F. M. 1959.
Factors affecting the abscission of reproductive organs in yellow lupins (*Lupinus luteus* L.) 2. The effect of growth substance, defoliation and removal of lateral growth. *Jour. Exptl. Bot* 9: 372-383.
- Van Steveninck, R. F. M. 1959.
Factors affecting the abscission of reproductive organs in yellow lupins (*Lupinus luteus* L.) 3. Endogenous growth substances in virus infected and healthy plant and their effect on abscission. *Jour. Exptl. Bot.* 10. 367-376.
- Van Steveninck, R. F. M. 1959.
Abscission-accelerators in Lupins (*Lupinus luteus* L.) *Nature* 183: 1246-1248.
- Wester, H. V. and P. C. Marth. 1950.
Growth regulators prolong the bloom of oriental flowering cherries and dog wood. *Science*. 111:611.
- Yager, R. E. and R. M. Muir. 1958.
Amino acid factor in control of abscission. *Science*. 127: 82-83.
- Yager, R. E. 1960.
Some effects of leaves and indoleacetic acid upon floral abscission in *Nicotiana tabacum*. *Bot. Gaz.* 121: 244-249.
- Yager, R. E. 1960.
Possible role of pectic enzymes in abscission. *Plant Physiol*. 35: 157-162

中文摘要

雜種裂瓣槿花離層之研究

呂理福

本實驗的內容包括：雜種裂瓣槿 (Hybrid of *Hibiscus Schizopetalus* Hooker) 之花柄上方及下方離層之比較解剖，離層之發生，分離的機構 (Mechanisms)，IAA, GA, 及 Kinetin 對離層之影響，以及離層癒傷組織細胞 (Callus cells) 之組織培養等。

上方離層及下方離層之構造有相同及相異處。上方離層早在花芽剛形成時便已出現在花苞的基部。用冰凍切片機 (Freezing microtome) 切製的離層切片標本其離層分離帶的細胞仍保持原形，但用石臘法切製者其分離帶的細胞多有不同程度的變形

。IAA的末端處理抑制離層的分離，但其基端處理則促進其分離。GA的末端及基端處理的促進分離，但以基端處理之效能較大。Kinetin之末端及基端處理效果相同，均促進分離。用IAA+GA, IAA+Kinetin, IAA+Kinetin處理，離層之反應情形與IAA之單獨處理情形相似。

用經椰子胚乳液補充過的懷特培養劑 (White's medium) 培養的離層癒傷組織細胞雖然頗有增長 (特別是延長)，但却未有細胞分裂現象發生，是否缺少某些物質尚待進一步的研究。