

不同氮源處理對萵苣硝態氮含量 日變化與鮮重的影響

王三太¹⁾ 林深林²⁾ 張武男³⁾

關鍵字：日變化、硝態氮含量、氮源、鮮重。

摘要：萵苣 (*Lactuca sativa* L.) R36 品種以 3mM 硝酸鈣 (6mM N) 或 3mM 硝酸銨 (6mM N) 處理，於 8 月 12 日下午 8 點開始採收，每隔 3 小時採收一次，採收至 8 月 13 日下午 5 點。3mM 硝酸鈣與 3mM 硝酸銨兩種養液處理的地上部硝態氮含量皆有日變化，而且在 8 個採收時間，3mM 硝酸鈣養液處理的地上部硝態氮含量皆高於 3mM 硝酸銨處理。8 個採收時間的硝態氮含量平均，3mM 硝酸鈣養液為乾物含量的 0.68%，而 3mM 硝酸銨處理為 0.29%。3mM 硝酸銨養液處理的地上部與根部鮮重分別為 3mM 硝酸鈣處理的 1.43 倍及 1.2 倍。

Effect of Nitrogen Source on Diurnal Variation of Nitrate Content and Fresh Weight of Lettuce

San-Tai Wang¹⁾ Shen-Lin Lin²⁾ Woo-Nang Chang³⁾

Key words: Diurnal variation, Nitrate content, Nitrogen source, Fresh weight

Summary

Lettuce (*Lactuca sativa* L., cv. R36) plants were hydroponically grown in solutions containing 3mM Ca(NO₃)₂ or 3mM NH₄NO₃ as nitrogen source. Mature plants were harvested eight times in one day at a 3 hr. interval from 8:00 PM Aug. 12 to 5:00 PM Aug. 13. Diurnal variations of the shoot nitrate content were observed in either Ca(NO₃)₂ or NH₄NO₃ treatment. Shoot nitrate content of Ca(NO₃)₂ treated plants were higher than those treated with NH₄NO₃ at every harvest. The average shoot nitrate content of lettuce with Ca(NO₃)₂ was 0.68% of the dry weight, and it was 0.29% for the NH₄NO₃ treated lettuce. The fresh weight of the NH₄NO₃ treated lettuce were 1.43 or 1.2 fold heavier than those with Ca(NO₃)₂ treatment for shoot or root respectively.