EFFECTS OF SALINITY STRESS ON FATTY ACID CONTENT IN PINEAPPLE (Cultivar N36)

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EFFECTS OF SALINITY STRESS ON FATTY ACIDS CONTENT IN PINEAPPLE (Cultivar N36)

By
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DEPARTMENT OF BIOLOGICAL SCIENCES
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Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: **Effects of Salinity Stress on Fatty Acids Content in Pineapple (Cultivar N36)** oleh **Munizakirah Binti Muhammad** no. matrik: **UK19404** telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperolehi **Ijazah Sarjana Muda Sains (Sains Biologi)** Fakulti Sains dan Teknologi, Universiti Malaysia Terengganu.

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DECLARATION

I hereby declare that this research report entitled **Effects of Salinity Stress on Fatty Acids Content in Pineapple (Cultivar N36)** is the result of my own research except as cited in the references.

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EFFECTS OF SALINITY STRESS ON FATTY ACIDS CONTENT IN PINEAPPLE (CULTIVAR N36)

ABSTRACT

A study was conducted to determine the effects of salinity stress on fatty acids content and fresh weight in pineapple N36 culture *in vitro*. The stress was induced by NaCl concentrations at 0, 50, 100 and 200 mM NaCl for 3 weeks. The biomass and fatty acids were measured weekly. The fatty acids profiling was analyzed using Gas-Chromatography. The results showed that NaCl at 200 mM was reduced the fresh weight of pineapple plantlets and fatty acids. NaCl concentrations caused the different level of total fatty acids content in pineapple. The salinity stress leads to reduce of fresh weight of plantlets and fatty acids content in pineapple at 200 mM NaCl.

KESAN TEGASAN SALINITI KE ATAS KANDUNGAN ASID LEMAK DALAM NANAS (KULTIVAR N36)

ABSTRAK

Kajian ini telah dijalankan bagi menentukan kesan tegasan saliniti ke atas kandungan asid lemak dan berat bersih dalam kultur nanas N36. Tegasan pada asid lemak telah diaruhkan dengan menggunakan kepekatan NaCl 0, 50, 100 dan 200 mM selama 3 minggu. Biojisim dan asid lemak telah diukur setiap minggu. Profil asid lemak dianalisa menggunakan mesin gas-chromatography. Keputusan menunjukkan 200 mM NaCl telah mengurangkan berat dan kandungan asid lemak pokok nanas tersebut. Kepekatan NaCl telah menyebabkan tahap jumlah asid lemak di dalam pokok nanas berbeza. Tegasan saliniti telah mengurangkan berat pokok and kandungan asid lemak di dalam nanas N36 pada 200 mM NaCl.