

**EFFECT OF WATERLOGGING ON FATTY ACID COMPOSITION OF COTTON
(*GOSSYPIUM HIRSUTUM* L.) SEEDLING ROOTS**

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ABSTRACT

A classical research work was done to evaluate the effect of waterlogging on fatty acid composition of cotton seedling roots. The experimental work was carried out at the School of Biological Sciences, University of Wales, Bangor, U.K. Cottonseeds were delinted and germinated for 48 or 72 hour at 25°C. The longest 25 seedlings were selected and their roots were extracted using the water-saturated butanol. They were purified by Sephadex G-25 and finally fatty acid in ethyl esters were prepared and analyzed by Gas-Liquid chromatography. The results revealed that waterlogging brings changes in both the levels and relative compositions of fatty acid. The research findings suggested that the waterlogging treatment enhances the synthesis of low molecular weight compounds and obscures the synthesis of all the normal fatty acids.

Keyword: Cotton, waterlogging, seedlings, fatty acids.