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Dedicatio n

To my father

My mother

and friends

Acknowledgement

I would like to express gratitude to: Prof: Mohammed Osman Sid-Ahmed For his suggestion and guidance to make this work possible.

I am also grateful to Dean of Science Faculty Dr. Abd Al Rahman Al Hassen and the head of the Department of Physics Dr. Ibraheem Al Faki, all the staff in the Department of Physics (Sudan University of Science & Technology). And particular thanks to Dr. Tahani Salih & Akram Yosif, All the members of the Laser Laboratory and Botany Department at Khartoum University.

Abstract

Studies in the water hyacinth field revealed that, it causes crises in the national economy (navigation, power generation, irrigation and fishing resource). This study aimed to develop a simple and cheap method for combating water hyacinth. The main idea is to increase the reflectivity of the leaf by covering it by paint. This is because the light plays an important role in the photosynthesis process. The increase of reflectivity results in reducing the transmission of light to the chlorophyll molecules. The fluorescence peaks were measured, using laser-induced fluorescence technique. It has been noticed that, there is a decrease in the peaks ratios when the paint thickness is increased. When sufficient paint was applied, the plant died within 24 hours.

المقدمة

أثبتت الدراسات في مجال أعشاب النيل (الهايسنس) إنها تسبب أزمات في الاقتصاد القومي (الملاحة النهرية، الطاقة الكهربائية، الري و الثروة السمكية). الهدف من هذه الدراسة تقديم طريقة سهلة و رخيصة لمكافحة أعشاب النيل. الفكرة الرئيسية تركز على زيادة انعكاسية الضوء من الورقة بطلائها، حيث يؤدي ذلك إلى تقليل الضوء النافذ الى جزيئات الكلوروفيل، ذلك لان الضوء يلعب دور مهم في عملية التمثيل الضوئي. تم قياس شدة الفلورة باستخدام تقنية التفلور بالحث الاليزري. لوحظ أن شدة الفلورة تنخفض مع زيادة سمك الطلاء. مات النبات خلال 24 ساعة من طلائه.