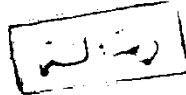
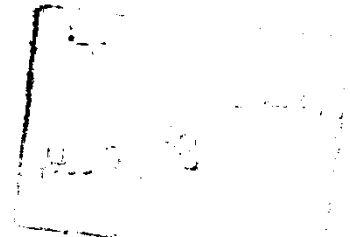


**BIOLOGICAL NITROGEN FIXATION BY SESBANIA SPP**



BY



**Aliaa Mohamed Abd-El-Kader Ibrahim**

A thesis submitted in partial Fulfillment  
of

the requirements for the degree of  
Master of science

In

Agriculture Science

Agricultural

(Microbiology)

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A.M



Department of Agric. Microbiology

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## APPROVAL SHEET

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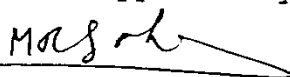
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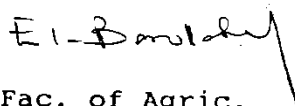
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# **BIOLOGICAL NITROGEN FIXATION BY SESBANIA SPP**

BY

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## **ABSTRACT**

Sesbania sesban and S. rostrata were compared with respect to their interactions with the two microsymbionts Rhizobium sesbani and Azorhizobium caulinodans ORS 571, their responses to soil fertilization with N and P and also their potentiality as green manure for maize. Azo.

caulinodans ORS 571, appeared to stimulate growth and N content of S. sesban. The two hosts showed maximum responses to ammonium sulfate when applied at rates of 20 and 60 mg N kg<sup>-1</sup> soil for S. sesban and S. rostrata, respectively. However, the addition of 200 mg superphosphate kg<sup>-1</sup> soil was particularly effective for both hosts. S. rostrata, as a green manure, was superior to S. sesban and other tested legumes in enhancing growth and N content of maize plants.

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