

STUDIES ON RHIZOBIUM OF  
*SESBANIA BISPINOSA* A GREEN  
MANURE PLANT AND LOOKING FOR A  
MEGA STRAIN

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Application of green manure to increase the soil productivity has been well recognized from early time in rice growing areas of India and China. Various rice growing areas of Kamarajar district were surveyed for the isolates of efficient and effective isolates of Rhizobium from *Sesbania bispinosa*. All the isolates were tested for their nitrogenase activity by acetylene reduction technique and 11 highly positive isolates were selected. Out of 11 isolates one strain was characterized for nodulating capacity, growth at different carbon Substrate, different pH, temperature, salinity and antibiotic resistance pattern. The results showed that the above strain had good nodulating capacity in pot experiment when compared with control. It can grow well in the pH range of 4 to 11, tolerate the salinity up to 600 mM (3.5% of NaCl), grow well upto 44° C and it has an antibiotic resistant pattern of Ch<sup>r</sup>, K<sup>r</sup>, P<sup>r</sup>, A<sup>r</sup>, NaI<sup>r</sup>. The above strain is highly resistant to Nalidixic acid (600 ug/ml) and this genetic marker can be used for strain identification. Growth at