



# University of North Bengal

Department of Botany

*Dr. Arnab Sen* LECTURER

## C E R T I F I C A T E

I certify that the thesis entitled, "Molecular characterization of *Frankia* and alder-*Frankia* symbiosis in Eastern India" submitted by Mr. Balwinder Singh Bajwa for the award of PhD degree of the University of North Bengal, embodies the record of the original investigation carried by him under my supervision. He has been duly registered and the thesis presented is worthy of being considered for the award of Doctor of Philosophy (Science) degree in Botany. The work has not been submitted for any degree of this or any other university and is in accordance with the rules and regulations of the University of North Bengal.

A handwritten signature in black ink that reads "Arnab Sen" with a double underline.

(Arnab Sen)  
Lecturer

Date: 26/7/04.