

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511128392 A

(19) INDIA

(22) Date of filing of Application :18/12/2025

(43) Publication Date : 26/12/2025

(54) Title of the invention : A SYSTEM FOR DUAL INOCULATION OF CAPSICUM FRUTESCENS

(51) International classification	:A01C 1/06, A01N 63/27, A01N 63/22, C12N 1/20, A01N 63/20	(71) <b>Name of Applicant :</b> <b>1)Swami Rama Himalayan University</b> Address of Applicant :Swami Rama Himalayan University, Swami Ram Nagar, Jolly Grant, Dehradun-248016 Dehradun Uttarakhand India (72) <b>Name of Inventor :</b> <b>1)Vivek Kumar</b> <b>2)Charu Sharma</b> <b>3)Vishal Rajput</b> <b>4)Vijay Kumar</b>
(31) Priority Document No	:NA	
(32) Priority Date	:NA	
(33) Name of priority country	:NA	
(86) International Application No	:	
Filing Date	:01/01/1900	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The invention pertains to the field of agricultural biotechnology and provides a dual inoculation system for Capsicum frutescens. In one embodiment, seeds are initially treated by spraying with a 20% jaggery solution to form an adhesive coating and subsequently contacted with a bacterial inoculant comprising endophytic strains such as Bacillus subtilis BS9 and Pseudomonas species (e.g., P4 and P123) admixed with a carrier material like charcoal powder. The system further includes an inoculant assembly module wherein a fungal inoculant, exemplified by granular Glomus fasciculatum blended with an organic carrier (peat moss), is housed in biodegradable pots. Upon seed germination, the bacterial inoculant colonizes the internal tissues while the fungal inoculant establishes an external hyphal network, enhancing nutrient uptake and plant growth.

No. of Pages : 19 No. of Claims : 10