

Utility Patent: 01(Published)

पेटेंट कार्यालय
शासकीय जर्नल

OFFICIAL JOURNAL
OF
THE PATENT OFFICE

निर्गमन सं. 46/2024	शुक्रवार	दिनांक: 15/11/2024
ISSUE NO. 46/2024	FRIDAY	DATE: 15/11/2024

पेटेंट कार्यालय का एक प्रकाशन
PUBLICATION OF THE PATENT OFFICE

(12) PATENT APPLICATION PUBLICATION	(21) Application No.202421076414 A
(19) INDIA	
(22) Date of filing of Application :09/10/2024	(43) Publication Date : 15/11/2024
(54) Title of the invention : Array Based Rapid Detection of Banana Bunchy Top Virus in Banana	

		(71)Name of Applicant : 1)Vasantrao Naik Marathwada Krishi Vidyapeeth Address of Applicant :Parbhani, Maharashtra- 431 402, India ----- -- 2)Dr. Rahul Lahu Chavhan 3)Dr. Vidya Ramesh Hinge 4)Mr. Abhijit Subhash Deshmukh 5)Dr. Amol M. Dethle 6)Ms. Nisarga S K 7)Ms. Dipti Jayantrao Wankhade Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Rahul Lahu Chavhan Address of Applicant :Assistant Professor (Plant Biotechnology Department),Vilasrao Deshmukh College of Agricultural Biotechnology, Nanded Road, Latur- 413512 ----- 2)Dr. Vidya Ramesh Hinge Address of Applicant :Assistant Professor (Plant Biotechnology Department),Vilasrao Deshmukh College of Agricultural Biotechnology Nanded Road, Latur- 413512 ----- 3)Mr. Abhijit Subhash Deshmukh Address of Applicant :Senior Research Fellow (Plant Biotechnology Department),Vilasrao Deshmukh College of Agricultural Biotechnology Nanded Road, Latur- 413512 ----- 4)Dr. Amol M. Dethle Address of Applicant :Associate Professor, Vilasrao Deshmukh College of Agricultural Biotechnology Nanded Road, Latur- 413512 ----- 5)Ms. Nisarga S K Address of Applicant :M.Sc. Student (Plant Biotechnology Department),Vilasrao Deshmukh College of Agricultural Biotechnology Nanded Road, Latur- 413512 --- ----- 6)Ms. Dipti Jayantrao Wankhade Address of Applicant :Senior Research Assistant (Department of Bioinformatics), V. D. College of Agricultural Biotechnology, Nanded Road, Latur, Maharashtra- 413 512, India -----
(51) International classification	:C12Q1/6806, C12Q1/686, C12Q1/70, G01N33/53	
(86) International Application No	:NA	
Filing Date	:NA	
(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 present invention introduces a ready-to-use kit designed for the detection of the Banana Bunchy Top Virus (BBTV) in banana plants. The kit incorporates a virus-specific array and essential PCR components in lyophilized form, providing a user-friendly, one-step method for both skilled and non-skilled individuals. Overcoming the limitations of existing technologies, such as Enzyme-Linked Immunosorbent Assay (ELISA) and conventional PCR, our 96-well plate, significantly reduces set-up time and minimizes the likelihood of errors. The present invention is particularly advantageous for industries requiring large-scale sample handling, offering a cost-effective solution compared to alternatives like RT-LAMP and isothermal gene amplification kits. The kit's simplicity and efficiency mark a substantial leap forward in the field of agricultural disease diagnosis and plant quarantine, promising timely and precise detection of BBTV.

No. of Pages : 28 No. of Claims : 10