

## Effect of fungicides, botanicals and bioagents against purple blotch of onion caused by *Alternaria porri*

■ A.A. WANGGIKAR<sup>1</sup>, S.S. WAGH\*<sup>2</sup>, D.P. KULDHAR<sup>2</sup> AND D.V. PAWAR<sup>2</sup>

<sup>1</sup>Department of Plant Pathology, College of Agriculture, LATUR (M.S.) INDIA

<sup>2</sup>Department of Plant Pathology, College of Agriculture, Vasantao Naik Marathwada Krishi Vidyapeeth, PRABHANI (M.S.) INDIA

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### ABSTRACT

A study was conducted in the of Department Plant Pathology, College of Agriculture, Latur, Vasantao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra, India, during 2011 to control *Alternaria porri* causing Alternaria blight of onion with fungicides, botanical and bio-agents. Among nine treatments, six fungicides (@ 100, 200, 250 and 500 ppm concentrations), one plant extract and two bioagents (@ 500 ppm) were evaluated *in vitro* and *in vivo* and were found effective against *A. porri* and recorded significant inhibition of the test pathogen over untreated control. However, *in vitro* result revealed that in hexaconazole cent per cent (100.00 %) inhibition was observed, followed by difenoconazole (83.91 %), mancozeb (63.58%), *P. floescence* (58.94 %) and *T. viride* (54.45%). The minimum per cent inhibition was observed in chlorothalonil (31.40 %) followed by plant extract NSKE (43.92 %), copper oxychloride (46.87 %) and carbendazim (47.11 %). *In vivo* results revealed that hexaconazole (0.1%) was found most effective and recorded significantly least mean disease incidence (6.03 %) and intensity (13.33 %) with corresponding significantly increased bulb yield (438.00 q/ha) followed by mancozeb (@ 0.2%) and copper oxychloride (0.25%) which recorded significantly mean disease incidence of 6.83 and 8.53 per cent and intensity, 15.00 and 20.00 per cent, respectively and gave correspondingly bulb yield, respectively of 375.00 and 429.00 q/ha. The botanical tested, *A. indica* (@ 5%) was found antifungal against *A. porri* and recorded significantly disease incidence (7.96 %) and intensity (27.00 %), and gave the bulb yield (290.00 q/ha). Both fungal and bacterial antagonists tested were found not so effective to reduce incidence and intensity, attempt increased the bulb yield over unsprayed control.

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\*Corresponding author:  
Email: [sandeepwagh88@gmail.com](mailto:sandeepwagh88@gmail.com)