



Onion purple blotch symptoms, at Assiut Governorate (Egypt), caused by synergistic association between *Alternaria porri* and *Stemphylium vesicarium*

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Abstract:

The incidence of onion purple blotch disease was investigated at Assiut Governorate, Egypt during 2011. Lesions with typical symptoms of the disease were colonized by *Alternaria porri*, *Stemphylium vesicarium* or mixtures of the both pathogens comprising 2.6, 39.8 and 57.6 % of samples, respectively. Four isolates were selected for virulence evaluation according to the nature of isolation, whereas two isolates were individually associated with the diseased samples and two isolates were collectively recovered. Individually, *A. porri* AUMC9301 and AUMC10453 showed high virulence contributing 81.25 and 78.13 %, respectively. Also, *S. vesicarium* AUMC10512 and AUMC10519 exhibit severity comprising 37.50 and 25.00 %, respectively. On the other hand, mixture of *A. porri* AUMC10453 and *S. vesicarium* AUMC10519 exhibited highest virulence (91.50 %). In conclusion, this investigation proved that onion plants showing purple blotch symptoms mainly colonized by both *A. porri* and *S. vesicarium*. Consequently, increase in the disease may be attributed to the association between these pathogens.

Keywords:

Alternaria porri □ Complex pathogens □ Leaf blight □ Onion purple blotch □ *Stemphylium vesicarium*

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