



## Alternaria species associated with early blight epidemics on tomato and other Solanaceae crops in northwestern Algeria

Submitted by Pascal Poupard on Wed, 11/02/2016 - 16:04

Titre	Alternaria species associated with early blight epidemics on tomato and other Solanaceae crops in northwestern Algeria
Type de publication	Article de revue
Auteur	Bessadat, Nabahat [1], Berruyer, Romain [2], Hamon, Bruno [3], Bataille-Simoneau, Nelly [4], Benichou, Soumaya [5], Kihal, Mabrouk [6], Henni, Djamel Eddine [7], Simoneau, Philippe [8]
Editeur	Springer Verlag
Type	Article scientifique dans une revue à comité de lecture
Année	2016
Langue	Anglais
Date	28 Oct. 2016
Pagination	1-17
Titre de la revue	European Journal of Plant Pathology
ISSN	0929-1873
Mots-clés	Aggressiveness [9], Alternaria spp. [10], Early blight [11], SolanaceaeTomato [12]
Résumé en anglais	<p>Early blight is a common disease of Solanaceae crops worldwide. The occurrence of <i>Alternaria</i> spp. was studied during three epidemics on tomato in northwestern Algeria. <i>Alternaria</i> was detected in more than 80 % of the diseased plant samples and accounted for more than 50 % of the total fungal isolates recovered from these samples. Morphological and molecular investigations revealed that small-spored isolates producing beaked conidia, i.e. belonging to the section <i>alternaria</i>, were prominent in most of the surveyed locations representing more than 80 % of the total <i>Alternaria</i> isolates in three locations (Mascara, Ain Témouchent and Sidi Belabbèsse). Based on their sporulation patterns they were recognized as <i>A. alternata</i> and <i>A. tenuissima</i>. Small-spored isolates producing conidia without beak and assigned to <i>A. consortialis</i> were also found at a low frequency (&lt; 1 %). Large-spored isolates producing conidia ended by typical long beaks and identified as <i>A. linariae</i> (syn. <i>A. tomatophila</i>), <i>A. solani</i> and <i>A. grandis</i> were also recovered from all the sampled areas and represented 33.8 %, 6.3 % and 1.3 % of the total <i>Alternaria</i> isolates, respectively. Pathogenicity tests on tomato with a selection of 85 strains representative of the isolates collection revealed that all the tested isolates were able to produce extending lesions on inoculated leaves albeit with variable intensity. Large-spored species included the most aggressive isolates. Small-spored <i>Alternaria</i>, although less aggressive than large-spored <i>Alternaria</i>, had the ability to provoke brown necrotic spots and circumstantially developed synergistic interactions in mixed infections with moderately aggressive isolates of <i>A. linariae</i>.</p>
URL de la notice	<a href="http://okina.univ-angers.fr/publications/ua15128">http://okina.univ-angers.fr/publications/ua15128</a> [13]
DOI	10.1007/s10658-016-1081-9 [14]

Lien vers le document <http://link.springer.com/article/10.1007%2Fs10658-016-1081-9> [15]

Titre abrégé Eur J Plant Pathol

---

### Liens

- [1] [http://okina.univ-angers.fr/publications?f\[author\]=12919](http://okina.univ-angers.fr/publications?f[author]=12919)
- [2] <http://okina.univ-angers.fr/romain.berruyer/publications>
- [3] [http://okina.univ-angers.fr/publications?f\[author\]=12815](http://okina.univ-angers.fr/publications?f[author]=12815)
- [4] <http://okina.univ-angers.fr/n.bataille/publications>
- [5] [http://okina.univ-angers.fr/publications?f\[author\]=12182](http://okina.univ-angers.fr/publications?f[author]=12182)
- [6] [http://okina.univ-angers.fr/publications?f\[author\]=16791](http://okina.univ-angers.fr/publications?f[author]=16791)
- [7] [http://okina.univ-angers.fr/publications?f\[author\]=12922](http://okina.univ-angers.fr/publications?f[author]=12922)
- [8] <http://okina.univ-angers.fr/philippe.simoneau/publications>
- [9] [http://okina.univ-angers.fr/publications?f\[keyword\]=12355](http://okina.univ-angers.fr/publications?f[keyword]=12355)
- [10] [http://okina.univ-angers.fr/publications?f\[keyword\]=21730](http://okina.univ-angers.fr/publications?f[keyword]=21730)
- [11] [http://okina.univ-angers.fr/publications?f\[keyword\]=21731](http://okina.univ-angers.fr/publications?f[keyword]=21731)
- [12] [http://okina.univ-angers.fr/publications?f\[keyword\]=21732](http://okina.univ-angers.fr/publications?f[keyword]=21732)
- [13] <http://okina.univ-angers.fr/publications/ua15128>
- [14] <http://dx.doi.org/10.1007/s10658-016-1081-9>
- [15] <http://link.springer.com/article/10.1007%2Fs10658-016-1081-9>

Publié sur *Okina* (<http://okina.univ-angers.fr>)