

First results on the susceptibility of different oilseed rape cultivars against Dark Leaf and Pod Spot (*Alternaria brassicicola* and *A. brassicae*)

I. Henneken, L. Agethen, V.H. Paul, Fachhochschule Südwestfalen, University of Applied Sciences, Laboratory for Biotechnology and Quality assurance, Lübecker Ring 2, 59494 Soest, Germany

Contacts: paul.volker@fh-swf.de, phone : +49 2921-378 242

Introduction

Dark Leaf and Pod Spot (*Alternaria brassicicola* = ALTEBI and *A. brassicae* = ALTEBA) is an important disease in oilseed rape cultivation. No resistant cultivars against these pathogens are known. It was therefore the aim of this study to assess the susceptibility of new oilseed rape cultivars against Dark Leaf and Pod Spot (*Alternaria brassicicola* and *A. brassicae*).

Materials and Methods

For the assessment of the susceptibility of new oilseed rape cultivars against Dark Leaf and Pod Spot (*Alternaria brassicicola* and *A. brassicae*), 4 x 10 pods of 19 different cultivars were harvested in the control plots of an official field variety trials. These pods were placed on two layers of moist paper towels in mini plastic green houses and inoculated with either ALTEBI or ALTEBA. In comparison 4 x 5 leaves (BBCH 17-18) of 19 cultivars were also tested for their susceptibility against ALTEBI and ALTEBA. These cultivars were grown in a climatic chamber. The 7th and 8th leaves were harvested (Detached Leaf Test = DLT) and placed on two layers of moist paper towels in mini plastic green houses and inoculated with ALTEBI and ALTEBA respectively.

ALTEBI

For inoculation a spore suspension with an adjusted number of conidia/ml was used. A drop-let of 10 µl of this spore suspension was placed on each leaf with a pipette in a mini plastic green house and then placed in a climatic chamber at 22°C. The control was inoculated with water. The experiments were assessed seven days after inoculation.

ALTEBA

For inoculation the spore suspension was also an adjusted number of conida/ml (Vishwanath, 1999). 20 µl of the spore suspension was placed as a drop on each leaf with a pipette in a mini plastic green house and then placed in a climatic chamber at 22 °C. The control was inoculated with water. The experiments were assessed one week after inoculation.

Results/Discussion

All cultivars showed susceptibility against ALTEBI and ALTEBA. With some cultivars the susceptibility varied in the replications of the same trial or in comparison between pod and leaf test. There was also no clear effect of ALTEBI and ALTEBA. Some cultivars showed a higher lesion diameter with ALTEBI than with ALTEBA and some vice versa. On the leaves ALTEBI showed a higher lesion diameter than ALTEBA. On the pods the difference was not as marked.