

Effects of different fungicides against Dark Leaf and Pod Spot (*Alternaria brassicicola* and *A. brassicae*) of Oilseed rape in a detached pod test

Henneken, I., Agethen, L., Paul, V.H.

Fachhochschule Südwestfalen, University of Applied Sciences, Laboratory for Biotechnology and Quality assurance, Lübecker Ring 2, 59494 Soest

Published at the **GCIRC Technical Meeting 2013, April 28th to May 1st 2013**

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 the aim of this study to assess the efficacy of new oilseed rape fungicides against Dark Leaf and Pod Spot (*Alternaria brassicicola* = ALTEBI and *A. brassicae* = ALTEBA) compared to an untreated control in an Detached Pod Test (DPT).

Material and Methods

To test the efficacy of different fungicides against Dark Leaf and Pod Spot, untreated pods of the cultivar Mendel were harvested in the field. For each of the two pathogens 9 fungicides/treatments and 20 pods were used. These pods were placed on two layers of moist paper towels in mini plastic green houses and inoculated with spore suspensions of ALTEBI and ALTEBA, respectively. The fungicides were applied protectively 0, 48, 96 h before and curatively 24, 48, 96 h after inoculation with ALTEBI and ALTEBA.

Results protective treatment

All fungicides gave a good control against ALTEBI (s. Fig. 1) and ALTEBA (s. Fig. 2) compared to the control. The least effective fungicide was Caramba.

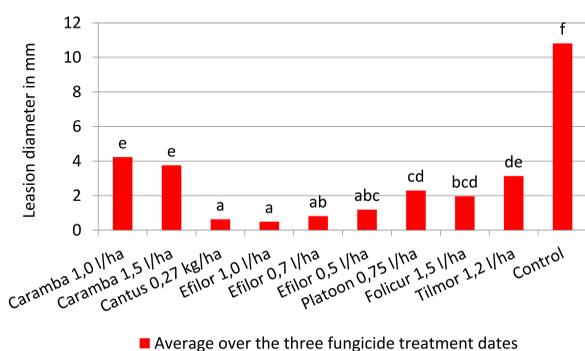


Fig. 1: Leasion diameter of ALTEBI after protective treatment with the different fungicides

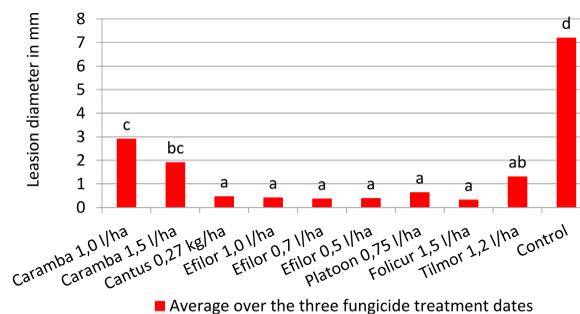


Fig. 2: Leasion diameter of ALTEBA after protective treatment with the different fungicides

Results curative treatment

All fungicides except Cantus (s. Fig. 3) resulted in good control against ALTEBI and all fungicides resulted in a good control of ALTEBA when applied curatively (s. Fig. 4).

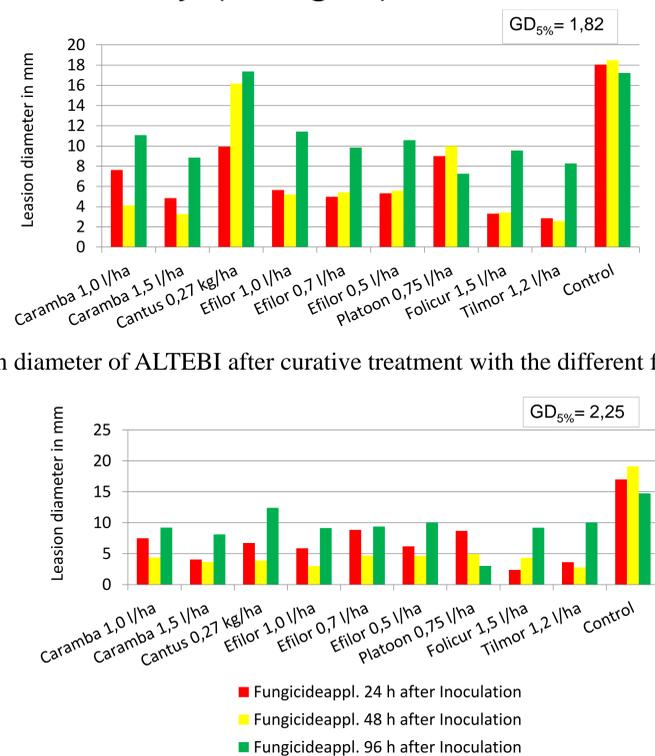


Fig. 1: Leasion diameter of ALTEBI after curative treatment with the different fungicides

Fig. 2: Leasion diameter of ALTEBA after curative treatment with the different fungicides

Summary

Most of the tested fungicides showed a good effect against ALTEBI and ALTEBA on pods of oilseed rape. Protective treatment seemed to give the best results. The curative treatments also showed good results against ALTEBI and ALTEBA. The degree of efficacy of both protective and curative treatment against dark leaf and pod spot dependet on the spray intervals before and after inoculation. On average the best results were achieved when the treatment was applied shortly before or after inoculation.

References

Paul, V.H., 2003: Raps – Krankheiten, Schädlinge, Schadpflanzen. Verlag Th. Mann, Gelsenkirchen, engl. Auflage 1992