

5.9 JULIANE SCHMITT<sup>1</sup>, BENNO KLEINHENZ<sup>1</sup>, JOHANN MAIER<sup>2</sup>, PETER RISSER<sup>2</sup>, CHRISTIAN LANG<sup>3</sup>, PAOLO RACCA<sup>1</sup>

<sup>1</sup> Zentralstelle der Länder für EDV-gestützte Entscheidungshilfen und Programme im Pflanzenschutz (ZEPP), Rüdeshheimer Straße 60-68, D – 55545 Bad Kreuznach

<sup>2</sup> Kuratorium für Versuchswesen und Beratung im Zuckerrübenanbau, Maximilianstraße 10, D – 68165 Mannheim

<sup>3</sup> Verband der Hessisch-Pfälzischen Zuckerrübenanbauer e.V., Rathenaustraße 10, D – 67547 Worms

## **CERC BET 3 PLUS – A NEW ACTION THRESHOLD AGAINST *CECOSPORA BETICOLA* (SACC.) IN SUGAR BEET BASED ON WHITE SUGAR YIELD AND INFECTION PRESSURE**

### **ABSTRACT**

The aim of this work was to determine a correlation between the epidemiological progress of *C. beticola* and losses in white sugar yield (WSY). A new threshold system was developed to predict the need and optimal timing for consecutive fungicide treatment from an economic perspective.

For modeling, the data of five years of fungicide trials carried out by Südzucker AG were used. By discriminant analysis a function was determined describing the decreasing WSY with increasing infection pressure index (IPI). The IPI is a daily calculated parameter, representing the epidemiology for *C. beticola* within a period, caused by weather conditions. The new IPI based action threshold is established to the equivalent of a WSY loss of 1%.

With exceeding the threshold after 15th August, the amount of the additional loss in WSY is calculated for the remaining period until 15th September (standard deadline for fungicide treatments).

A first evaluation showed a correct classification of WSY loss in over 90% of all cases. An independent validation will be done with the data of field trials carried out in 2015 and planned for 2016.