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**DEVELOPMENT OF TWO BIOTESTS FOR THE IDENTIFICATION OF
APHANOMYCES COCHLIOIDES RESISTANCE IN SUGAR BEET**

**Développement de deux tests biologiques afin d'identifier la résistance des
betteraves sucrières aux *Aphanomyces cochlioides* / Entwicklung zweier
Biotests zur Identifizierung der *Aphanomyces cochlioides*-Resistenz
in Zuckerrüben**

ABSTRACT

Aphanomyces cochlioides belongs to the economically most important pathogens in sugar beet production worldwide. The soil borne oomycete causes damping-off in seedlings as well as scab and *Aphanomyces* root rot in mature beets. Fungicidal control is only possible in relation to damping-off by seed coating but cannot prevent later infection and symptom development on older plants. Thus, cultivar resistance is currently the only control method to avoid severe losses. However, the selection under natural conditions is subject to high variation because the infection depends on the weather conditions and varies between different years. Therefore, two different biotests for the detection of genotypic differences in the susceptibility to damping-off as well as *Aphanomyces* root rot were developed in the greenhouse. No correlation between the resistance of sugar beet genotypes to the two different symptom complexes was found.
