## 23-6 - Control of leaf diseases on sugar beet applying a new fungicide

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Leaf diseases are one of the most important causes for losses in the yield and quality of sugar beet roots. Broad spectrum of diseases like Ramularia beticola, Erysiphe betae, Uromyces betae and Cercospora beticola is attacking sugar beet leaves most seriously leading to losses in white sugar yield up to 30 %. Starting from the canopy closure (BBCH 39) the conditions in the sugar beet field become increasingly favorable regarding warm temperatures (above 15 °C) and sufficient air moisture.

Syngenta has developed the new product containing azoxystrobin and difenoconazole (A18253A) for control of leaf diseases, which also respects the requirements in efficient resistance management. The mixture of the strobilurin azoxystrobin with the triazole difenoconazole, with different modes of action, effectively acts as a resistance strategy. Difenoconazole is a preventative and curative broad-spectrum fungicide with systemic activity, while azoxystrobin is essentially protectant with contact and systemic activity. There is no cross resistance between the two fungicide types. In such a way an effective disease management is achieved. First field studies show an advantage of A18253A vs. approved standards at label rates.

## % Control of Cercospora beticola vs. untreated check



## Standards - mean\* includes approved standards at label rates: Amistar (azoxystrobin), Score / Plover (difenoconazole), Spyrale (fenprpoidin + difenoconazole), Escolta / Sphere (cyproconazole + trifloxystrobin)

**Fig. 1** Mean percentage efficacy (based on % disease severity on leaves) of 2 applications of A18253A each at 1.0 l product/ha against Cercospora leaf spot (*Cercospora beticola* – CERCBE) on sugar beet, across 8 trials 2010-2012 in which disease developed to  $\geq$ 5% in the untreated control – Maritime climatic zone (DE - 3 trials, FR – 4, NL - 1)

A18253A at the proposed label rate of 1.0 l product/ha had no negative impact on sugar beet yield quality, based on no or low impact on impurities, amino N, potassium, sodium and and the percentage of sugar content.

It is worth to highlight that currently several experiments are carried out aiming for a label extension (*Rhizoctonia solani*). *Rhizoctonia solani* occurs in the warmer regions of southern Germany and Austria and causes tremendous damage up to complete loss.