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## PROTECTION AGAINST FUNGICIDE RESISTANT CERCOSPORA STRAINS IN HUNGARY

## ABSTRACT

Among the fungal diseases of sugar beet Cercospora leaf spot is the most important in Hungary. The control of this disease is more and more difficult, because the rising resistance level against the commonly used active ingredient groups.

At present triazols, strobilurins, morfolins and combinations of them, as well as coppers are used against Cercospora. Until now they were effective against the disease.

Four years ago most authorized systemic fungicides were just perfectly effective in our field trials. In 2013 the mostly used Juvel and Tango Star gave weak defending effect but Sfera (not widespread in Hungary) was effective (AGRANA trial 2013).

In 2014 the efficiency of Sfera alone was extremely weak, but with copper showed proper effect (AGRANA trial 2014).

In 2015 the effects of the above-mentioned fungicides were practically vanishing. The contact fungicides (with copper) were the most effective against Cercospora in the trials.

The field trials were artificially infected with the mixture of Cercospora isolates from different growing regions of sugar beet in Hungary. Probably several local strains are not resistant to these fungicides but every year new information about ineffectiveness is received from the farmers.

The resistance level of different isolates are continuously examined in the Hungarian sugar beet research institute, and farmers are recommended for the suitable control.