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**DYNAMICS OF NEMATODE POPULATIONS BY GROWING SUSCEPTIBLE,
TOLERANT AND RESISTANT SUGAR BEET VARIETIES –
RESULTS OF A NATIONWIDE SYSTEMATIC FIELD TRIAL
IN GERMANY AND AUSTRIA 2012-2014**

ABSTRACT

The beet cyst nematode *Heterodera schachtii* is the most important pest in sugar beet growing regions of Central Europe. Quantification of nematode populations in the soil requires elaborate methods of sampling. The widespread of different climatic conditions and soil types in the growing regions necessitates a large number of trial sites to get a well-balanced data-set to assess the effect of varieties on population dynamics of the nematode.

Differences in the dynamics of the nematode population were studied by growing a susceptible, a resistant and three tolerant sugar beet varieties in a systematic field trial. The nematode infestation levels were measured in two soil layers. Soil samples from topsoil (0-30 cm) and subsoil (30-60 cm) were analyzed to determine the number of eggs and larvae per 100 g of soil dry weight.

Results of about 50 sites in typical sugar beet growing areas over three trial years are shown describing effects of the different variety types on final nematode populations shortly after harvest.
