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THE EFFECT ON SUGAR YIELD IN DIFFERENT CROP ROTATIONS WITH SUGAR BEET, OIL SEED RAPE AND INTERCROPS

ABSTRACT

In this three year study on six crop rotation trials in Sweden, it was shown that oil seed rape as a pre-crop to sugar beet increased sugar yield by 1280 kg/ha (11%) compared to winter wheat as pre-crop.

Introduction of oil seed radish twice in the rotation also showed a tendency for increased sugar yield already in the first beet crop. Soil resistance was measured in each plot and was found to be lower in plots with oil seed radish compared to plots with winter wheat as pre-crop.

The occurrence of beet cyst nematodes in some of the trials had an impact on the results. Sugar yield in rotations with oil seed rape as pre-crop to sugar beet showed no increase in sugar yield if nematodes were present in the soil.

This research project has shown that crop rotation management is a good way to increase sugar yields, increase soil structure and control diseases.

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