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Biological tests with pine hydrolate against the pollen beetle

The pine hydrolate "Märkisches Kiefernwasser", produced in the plant in Reichstädt in Saxony on the basis of pine wood shavings in December 2019, was tested by me in the first half of 2020 for a repellent effect on the pollen beetle *Brassicogethes aeneus* as well as concerning a reduction of feeding damage to the rapeseed blossom.

Therefore, oilseed rape plants were cultivated in the greenhouse. In an outdoor trial, plants were sprayed with pine hydrolate and then placed in an untreated flowering oilseed rape field. After 2 to 3 days, the number of beetles and feeding damage to the flowers were documented on the test plants. The plants treated with pine hydrolate showed a reduced infestation of adult pollen beetles and a significantly lower degree of feeding damage to the flowers compared to untreated and water-sprayed control samples.

Furthermore, the effect of pine hydrolate on the orientation of adult rape seed beetles was investigated in a dynamic Y-olfactometer in an air stream against water. The beetles showed a clear preference of the aqueous solution compared to the pine hydrolate.

These results indicate that pine hydrolate has a deterrent effect on the pollen beetle pest *Brassicogethes aeneus* and can therefore minimize the damage caused by this pest in oilseed rape cultivation. The results will be statistically validated in the following year.

With kind regards

Sibylle Kümmeritz