

SUSCEPTILITY OF SUNFLOWER TO DOWNY MILDEW AS AFFECTED BY
BORON AND POTASSIUM FERTILIZERS

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ABSTRACT

Twenty mg boron per kg soil was the optimum level that minimized the downy mildew infection and resulted the highest dry weight of roots and shoots.

At all potassium levels, the residual effect of the applied B and K in the same soil reinoculated with *Plasmopara halstedii* declared much higher infection rate. The average dry weight of non-inoculated plants was significantly higher than the inoculated ones in both roots and shoots.

Increasing K level increased the dry weight of roots at different B levels.

The concentration of B in soil was increased by increasing its application before planting at all K levels and this tendency remained following the first and second harvest.

The inoculated seedlings contained much higher boron at all treatments when compared with noninoculated ones, not only at the first yield but also at the second one except roots of the second harvest which showed the opposite reaction.

The percentage of N, Ca and Na in sunflower plants was varied between healthy and diseased plants as a response to B and K applications.