

# Quantitative Changes of Secondary Metabolites of *Matricaria chamomilla* by Abiotic Stress

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The responses of young plants of diploid and tetraploid *Matricaria chamomilla* cultivars to abiotic stress were studied. The course of quantitative changes of main leaf secondary metabolites was evaluated within an interval from 6 h before to 54 h after spraying the leaf rosettes with aqueous CuCl<sub>2</sub> solution. The content of herniarin in the treated plants rose approximately 3 times, simultaneously with a decline of its precursor (*Z*)- and (*E*)-2- $\beta$ -D-glucopyranosyloxy-4-methoxycinnamic acid. The highest amounts of umbelliferone in stressed plants exceeded 9 times and 20 times those observed in control plants of the tetraploid and diploid cultivar, respectively. Due to stress the concentration of ene-yne-dicycloether in leaves decreased by more than 40%. The pattern of quantity changes of the examined compounds in tetraploid and diploid plants was similar.

*Key words:* *Matricaria chamomilla*, Secondary Metabolites, Abiotic Stress