

THE INFLUENCE OF ABIOTIC STRESS FACTORS ON LETTUCE

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Summary. This paper presents the influence of non-steroidal anti-inflammatory drugs (diclofenac, ibuprofen, and naproxen), antibiotics (ampicillin, ciprofloxacin), nanomaterials (CNT-COOH, CNT-MnO₂ etc) and heavy metals (Cu, Cd etc) on the lettuce (*Lactuca sativa* L.). The evaluation of the impact of these pollutants on photosynthetic pigments, total polyphenols, antioxidant activity and the variation of multielement content was followed. From these studies it was observed that the VOCs emission rate increase with the increase of the pollutant concentration and the quantity of chlorophylls, carotenoids, polyphenols and flavonoids decrease. In conclusion, these can be employed as a stress signal of the plants or as biomarkers. All these information can be used for assessment the resistance and resilience of plants to environmental stressors and will be applied for plant protection.

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