



## Use of cytokinins as agrochemicals

Radoslav Koprna<sup>a</sup>, Nuria De Diego<sup>a</sup>, Lucie Dundálková<sup>a,1</sup>, Lukáš Spíchal<sup>a,\*</sup>

*<sup>a</sup>Department of Chemical Biology and Genetics, Centre of the Region Haná for Biotechnological and Agricultural Research, Faculty of Science, Palacký University, Šlechtitelů 27, CZ-78371 Olomouc, Czech Republic*

*<sup>1</sup>Present address: CHEMAP AGRO s.r.o., Dašice 475, CZ-533 03 Dašice, Czech Republic*

*\*corresponding author; e-mail: lukas.spichal@upol.cz*

### Abstract

Plant hormones cytokinins regulate various aspects of plant growth and development. For their positive effects on branching, delaying of senescence, nutrient remobilisation, flower and seed set control they became interesting substances in search for potential agrochemicals. From the 1970' of the last century exogenous application of cytokinins have been tested in field conditions to improve yield traits of world-wide important crops such as wheat, rice, maize, barley, and soybean. Despite the extensive testing summarized in this work, so far cytokinins haven't found their stable place among commercialized plant growth regulators, mainly due to the complexity of their effects. Here we bring an overview of the outcomes obtained in pot and field experiments using cytokinin exogenous treatments, summarize the ways of application and point to the affected traits in various field crops, vegetables, cotton and fruit trees. Further, we present here outcomes of field trials performed with a derivative of *N*<sup>6</sup>-benzyladenine, 2-chloro-6-(3-methoxybenzyl)aminopurine, in spring barley and winter wheat. The effect on yield forming traits such as number of tillers, grains per ear, number of

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