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Research of the behavioral flexibility of pollinators (*Bombus terrestris*) in a regulated growing environment

During my research I investigate the complex effect of biotic and abiotic environmental conditions on the behavior of bumblebees, which influences the pollination dynamics and the efficiency of pollination in closed producing facilities. My research pays special attention to abiotic environmental factors influencing the behavioral responses of bumblebees, especially with regard to light composition, because these results provide new scientific knowledge for crop production that can be adapted in practice, as pollination efficiency can be increased by optimizing environmental factors. Furthermore, not only the combined effect of the factors used in cultivated cultures, but also the effect of their spatial and temporal heterogeneity on behavior and their efficiency in crop production have not been sufficiently explored. And all this new knowledge can contribute to the optimal use of plant protection products, so development of cost-effective, automated and precision crop production.