

Production of Microalgae with Biopesticide Activity

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Some microalgae strains produce bioactive compounds that can improve plant growth as biopesticides. In the laboratory and outdoor trials we aimed to monitor photosynthetic activity and growth of most promising strains with potential biostimulating activity: filamentous cyanobacterium *Nostoc piscinale* MACC-612 and two single-celled green algae *Chlamydomodium fusiforme* MACC-430 and *Chlorella vulgaris* R-117 CCALA 1107. Microalgae cultures were grown in bubble-column tubes (0.3 L) in the laboratory and then in larger scale outdoor in thin-layer cascades and raceway pond (70-100 L). Growth rates were measured in parallel with photosynthetic activity using fluorescence techniques – fast fluorescence induction kinetics, light-response curves of electron transport activity and oxygen evolution. Resulting biomass was freeze-dried and analysis of biopesticide activities was done by dual culture method against certain pathogens.

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