Some liverwort extracts suppress development of brown rot caused by *Monilinia laxa*

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Bryophytes are unique group of plants, whose peculiarities are less known compared to vascular plants. There are many reasons for this: small size, small biomass, and identification problems, unknown biology of species and so avoidance of experimental approach to study their characteristics. It is widely accepted that a sub-group of bryophytes, namely liverworts, possess interesting chemical content but the biological activity tests are missing. With aim to overcome these disadvantages and search for environmental friendly control of fruit diseases, we tested three liverwort species (*Metzgeria furcata*, *Plagiochila porelloides* and *Chiloscyphus polyanthus*) extracts on the development of phytopathogenic fungus *Monilinia laxa*, causal agent of peach brown rot. In vitro laboratory tests were performed investigating the extract effects of Serbian liverworts accessions on Montenegrin peach fruit isolate of *Monilinia laxa*.

The results obtained clearly showed that all tested extracts and their concentrations slow down the growth of fungal mycelium under in vitro conditions, but the two species extracts tested had limited effect for wider application. In contrast, the extracts of *Chiloscyphus polyanthus* clearly suppress the growth of *Monilinia laxa*, irrespective of extract concentration applied (5, 10 or 15 µl) compared to control treated with distilled water only (statistical significance P<0.01).

This can promise the development of bio-treatment of brown rot disease in peach fruits, decreasing the economic damages and increasing the organic production. The obtained data are in accordance with the already achieved results of similar research.

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