ANTIFUNGAL ACTIVITY OF MICROALGAE ISOLATED FROM THE WATER OF "LA IZVOR" LAKE

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Currently, the attention of researchers is directed towards microalgae and cyanobacteria due to their use as an alternative source of antibiotics. Among the first isolated antimicrobial compounds is chlorelin, from *Chlorella sp*. which is a mixture of fatty acids that inhibits the growth of both gram-positive and gram-negative bacteria. Eicosapentaenoic acid, hexadecatrienoic acid and palmitoleic acid isolated from *Phaeodactylum tricornutum* have been shown to possess antimicrobial activity against *Staphylococcus aureus* gram-positive strain. Thus, the aim of the research was to determine the antifungal activity of 8 strains of microalgae, isolated from the lake "La Izvor".

The cultures were isolated by inoculation on liquid and solid mineral nutrient media. Hydroalcoholic extracts (60-70%) from microalgae biomass were used to determine the antifungal activity against phytopathogenic cultures of fungi.

Thus, the experiments showed that microalgae strains have antifungal activity against the tested cultures of pathogenic fungi, especially *Oscillatoria acutissima* and *Spirulina major* showed a clear inhibitory effect (diameter of inhibition zone more -24mm and 25mm, respectively) against *Alternaria alternata.* Biomass extracts of *O. planctonica, O. brevis (*diameter of the inhibition zone of 40 mm) *O. acutissima* and *Chlorella vulgaris,* have shown an inhibitory effect on the growth of *Aspergillus niger* and *Botrytis cinerea*. An inhibitory action on the growth of the pathogenic fungus *Fusarium solani*, have presented extracts from *O. planctonica, O. acutissima, S. major, Anabaena variabilis* and *Nostoc verrucosum.*

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